APPENDICES

Appendix A – Air Quality Worksheets
Appendix B – Shade and Shadow Analysis
Appendix C – Noise Measurements
Appendix D – Traffic Study
Appendix E – Utilities Calculations Worksheets

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El Monte Mixed Use

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	86.00	Dwelling Unit	2.98	147,581.00	246

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**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 area and building area is actual.

Construction Phase - Actual projected construction period

Demolition - Actual estimated demolition

Architectural Coating - VOC quantities refelct actual figures.

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	220.00	132.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	3.00	21.00
tblConstructionPhase	PhaseEndDate	1/29/2016	1/31/2016
tblGrading	AcresOfGrading	31.50	4.50
tblLandUse	LandUseSquareFeet	86,000.00	147,581.00
tblLandUse	LotAcreage	5.38	2.98
tblProjectCharacteristics	OperationalYear	2014	2017

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					
2016	55.5774	30.8656	22.3430	0.0356	0.7493	1.7458	2.3936	0.1998	1.6339	1.7738	0.0000	3,285.9141	3,285.9141	0.7530	0.0000	3,301.7264
Total	55.5774	30.8656	22.3430	0.0356	0.7493	1.7458	2.3936	0.1998	1.6339	1.7738	0.0000	3,285.9141	3,285.9141	0.7530	0.0000	3,301.7264

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					
2016	55.5771	30.8373	22.3233	0.0356	0.7493	1.7442	2.3921	0.1998	1.6324	1.7723	0.0000	3,283.7560	3,283.7560	0.7523	0.0000	3,299.5540
Total	55.5771	30.8373	22.3233	0.0356	0.7493	1.7442	2.3921	0.1998	1.6324	1.7723	0.0000	3,283.7560	3,283.7560	0.7523	0.0000	3,299.5540

	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	5.9377e-004	0.0916	0.0883	0.0561	0.0000	0.0917	0.0622	0.0000	0.0918	0.0806	0.0000	0.0657	0.0657	0.0916	0.0000	0.0658

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	25.9966	0.6553	50.3938	0.0692		6.6083	6.6083		6.6073	6.6073	805.5550	1,560.7755	2,366.3305	2.4151	0.0547	2,433.9979
Energy	0.0252	0.2154	0.0917	1.3700e-003		0.0174	0.0174		0.0174	0.0174		274.9924	274.9924	5.2700e-003	5.0400e-003	276.6659
Mobile	2.6138	2.4449	9.8948	0.0256	1.7077	0.0360	1.7438	0.4563	0.0332	0.4895		2,174.4226	2,174.4226	0.0819		2,176.1415
Total	28.6356	3.3156	60.3803	0.0961	1.7077	6.6618	8.3695	0.4563	6.6579	7.1142	805.5550	4,010.1904	4,815.7454	2.5023	0.0597	4,886.8053

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	3.4615	0.0835	7.1666	3.7000e-004		0.0389	0.0389		0.0389	0.0389	0.0000	12.7755	12.7755	0.0128	0.0000	13.0448
Energy	0.0252	0.2154	0.0917	1.3700e-003		0.0174	0.0174		0.0174	0.0174		274.9924	274.9924	5.2700e-003	5.0400e-003	276.6659
Mobile	2.6432	2.4720	9.9956	0.0259	1.7298	0.0365	1.7662	0.4622	0.0336	0.4958		2,201.7754	2,201.7754	0.0828		2,203.5147
Total	6.1299	2.7710	17.2538	0.0276	1.7298	0.0928	1.8226	0.4622	0.0899	0.5521	0.0000	2,489.5432	2,489.5432	0.1009	5.0400e-003	2,493.2254

	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	78.5933	16.4262	71.4248	71.2605	-1.2894	98.6070	78.2238	-1.2886	98.6497	92.2397	100.0000	37.9196	48.3041	95.9672	91.5606	48.9805

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/31/2016	5	21	
2	Site Preparation	Site Preparation	2/1/2016	2/29/2016	5	21	
3	Building Construction	Building Construction	3/1/2016	8/31/2016	5	132	
4	Paving	Paving	9/1/2016	9/30/2016	5	22	
5	Architectural Coating	Architectural Coating	10/1/2016	10/31/2016	5	21	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Paving Equipment	1	8.00	130	0.36
Site Preparation	Scrapers	1	8.00	361	0.48
Building Construction	Welders	3	8.00	46	0.45

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
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	62.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2016

Unmitigated Construction On-Site

Acres of Grading: 4.5

	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					2.1000e-003	0.0000	2.1000e-003	3.2000e-004	0.0000	3.2000e-004			0.0000			0.0000
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328		2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**	**2.1000e-003**	**1.7445**	**1.7466**	**3.2000e-004**	**1.6328**	**1.6331**		**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

Acres of Grading: 4.5

	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	0.2617	0.0679	0.8450	1.8400e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		154.6296	154.6296	7.9300e-003		154.7962
Total	**0.2617**	**0.0679**	**0.8450**	**1.8400e-003**	**0.1453**	**1.2100e-003**	**0.1465**	**0.0385**	**1.1200e-003**	**0.0397**		**154.6296**	**154.6296**	**7.9300e-003**		**154.7962**

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					8.2000e-004	0.0000	8.2000e-004	1.2000e-004	0.0000	1.2000e-004			0.0000			0.0000
Off-Road	2.9039	28.2320	21.4783	0.0245		1.7429	1.7429		1.6313	1.6313	0.0000	2,484.8478	2,484.8478	0.6282		2,498.0404
Total	**2.9039**	**28.2320**	**21.4783**	**0.0245**	**8.2000e-004**	**1.7429**	**1.7438**	**1.2000e-004**	**1.6313**	**1.6314**	**0.0000**	**2,484.8478**	**2,484.8478**	**0.6282**		**2,498.0404**

3.2 Demolition - 2016

Mitigated Construction Off-Site

Acres of Grading: 4.5

	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	0.2617	0.0679	0.8450	1.8400e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		154.6296	154.6296	7.9300e-003		154.7962
Total	**0.2617**	**0.0679**	**0.8450**	**1.8400e-003**	**0.1453**	**1.2100e-003**	**0.1465**	**0.0385**	**1.1200e-003**	**0.0397**		**154.6296**	**154.6296**	**7.9300e-003**		**154.7962**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

Acres of Grading: 0

	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					0.2273	0.0000	0.2273	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	2.6992	30.8238	18.0600	0.0239		1.5116	1.5116		1.3907	1.3907		2,480.1000	2,480.1000	0.7481		2,495.8099
Total	**2.6992**	**30.8238**	**18.0600**	**0.0239**	**0.2273**	**1.5116**	**1.7389**	**0.0245**	**1.3907**	**1.4153**		**2,480.1000**	**2,480.1000**	**0.7481**		**2,495.8099**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

Acres of Grading: 0

	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	0.1611	0.0418	0.5200	1.1300e-003	0.0894	7.5000e-004	0.0902	0.0237	6.9000e-004	0.0244		95.1567	95.1567	4.8800e-003		95.2592
Total	**0.1611**	**0.0418**	**0.5200**	**1.1300e-003**	**0.0894**	**7.5000e-004**	**0.0902**	**0.0237**	**6.9000e-004**	**0.0244**		**95.1567**	**95.1567**	**4.8800e-003**		**95.2592**

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					0.0886	0.0000	0.0886	9.5700e-003	0.0000	9.5700e-003			0.0000			0.0000
Off-Road	2.6967	30.7955	18.0434	0.0238		1.5103	1.5103		1.3894	1.3894	0.0000	2,477.8247	2,477.8247	0.7474		2,493.5201
Total	**2.6967**	**30.7955**	**18.0434**	**0.0238**	**0.0886**	**1.5103**	**1.5989**	**9.5700e-003**	**1.3894**	**1.3990**	**0.0000**	**2,477.8247**	**2,477.8247**	**0.7474**		**2,493.5201**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

Acres of Grading: 0

	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	0.1611	0.0418	0.5200	1.1300e-003	0.0894	7.5000e-004	0.0902	0.0237	6.9000e-004	0.0244		95.1567	95.1567	4.8800e-003		95.2592
Total	**0.1611**	**0.0418**	**0.5200**	**1.1300e-003**	**0.0894**	**7.5000e-004**	**0.0902**	**0.0237**	**6.9000e-004**	**0.0244**		**95.1567**	**95.1567**	**4.8800e-003**		**95.2592**

3.4 Building Construction - 2016

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	3.6984	24.6320	16.7166	0.0249		1.6257	1.6257		1.5569	1.5569		2,352.2239	2,352.2239	0.5420		2,363.6057
Total	**3.6984**	**24.6320**	**16.7166**	**0.0249**		**1.6257**	**1.6257**		**1.5569**	**1.5569**		**2,352.2239**	**2,352.2239**	**0.5420**		**2,363.6057**

3.4 Building Construction - 2016

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	0.1346	0.7773	0.8963	1.9600e-003	0.0563	0.0128	0.0691	0.0160	0.0118	0.0278		196.2260	196.2260	1.4000e-003		196.2554
Worker	1.2483	0.3238	4.0301	8.7600e-003	0.6930	5.7900e-003	0.6988	0.1838	5.3200e-003	0.1891		737.4642	737.4642	0.0378		738.2588
Total	**1.3829**	**1.1011**	**4.9264**	**0.0107**	**0.7493**	**0.0186**	**0.7679**	**0.1998**	**0.0171**	**0.2169**		**933.6902**	**933.6902**	**0.0392**		**934.5142**

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	3.6951	24.6094	16.7013	0.0249		1.6243	1.6243		1.5554	1.5554	0.0000	2,350.0658	2,350.0658	0.5415		2,361.4372
Total	**3.6951**	**24.6094**	**16.7013**	**0.0249**		**1.6243**	**1.6243**		**1.5554**	**1.5554**	**0.0000**	**2,350.0658**	**2,350.0658**	**0.5415**		**2,361.4372**

3.4 Building Construction - 2016

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	0.1346	0.7773	0.8963	1.9600e-003	0.0563	0.0128	0.0691	0.0160	0.0118	0.0278		196.2260	196.2260	1.4000e-003		196.2554
Worker	1.2483	0.3238	4.0301	8.7800e-003	0.6930	5.7900e-003	0.6988	0.1838	5.3200e-003	0.1891		737.4642	737.4642	0.0378		738.2588
Total	**1.3829**	**1.1011**	**4.9264**	**0.0107**	**0.7493**	**0.0186**	**0.7679**	**0.1998**	**0.0171**	**0.2169**		**933.6902**	**933.6902**	**0.0392**		**934.5142**

3.5 Paving - 2016

Unmitigated Construction On-Site

Acres of Paving: 0

	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	1.7811	17.9300	12.1433	0.0176		1.1252	1.1252		1.0363	1.0363		1,804.8600	1,804.8600	0.5344		1,816.0828
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7811**	**17.9300**	**12.1433**	**0.0176**		**1.1252**	**1.1252**		**1.0363**	**1.0363**		**1,804.8600**	**1,804.8600**	**0.5344**		**1,816.0828**

3.5 Paving - 2016

Unmitigated Construction Off-Site

Acres of Paving: 0

	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	0.3020	0.0783	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	9.1500e-003		178.6110
Total	**0.3020**	**0.0783**	**0.9750**	**2.1200e-003**	**0.1677**	**1.4000e-003**	**0.1691**	**0.0445**	**1.2900e-003**	**0.0458**		**178.4188**	**178.4188**	**9.1500e-003**		**178.6110**

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	1.7795	17.9135	12.1322	0.0176		1.1241	1.1241		1.0354	1.0354	0.0000	1,803.2041	1,803.2041	0.5339		1,814.4166
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7795**	**17.9135**	**12.1322**	**0.0176**		**1.1241**	**1.1241**		**1.0354**	**1.0354**	**0.0000**	**1,803.2041**	**1,803.2041**	**0.5339**		**1,814.4166**

3.5 Paving - 2016

Mitigated Construction Off-Site

Acres of Paving: 0

	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	0.3020	0.0783	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	9.1500e-003		178.6110
Total	**0.3020**	**0.0783**	**0.9750**	**2.1200e-003**	**0.1677**	**1.4000e-003**	**0.1691**	**0.0445**	**1.2900e-003**	**0.0458**		**178.4188**	**178.4188**	**9.1500e-003**		**178.6110**

3.6 Architectural Coating - 2016

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	54.9674					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**55.3358**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

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	0.2416	0.0627	0.7800	1.7000e-003	0.1341	1.1200e-003	0.1353	0.0356	1.0300e-003	0.0366		142.7350	142.7350	7.3200e-003		142.8888
Total	**0.2416**	**0.0627**	**0.7800**	**1.7000e-003**	**0.1341**	**1.1200e-003**	**0.1353**	**0.0356**	**1.0300e-003**	**0.0366**		**142.7350**	**142.7350**	**7.3200e-003**		**142.8888**

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	54.9674					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3681	2.3701	1.8822	2.9700e-003		0.1964	0.1964		0.1964	0.1964	0.0000	281.1898	281.1898	0.0332		281.8860
Total	**55.3355**	**2.3701**	**1.8822**	**2.9700e-003**		**0.1964**	**0.1964**		**0.1964**	**0.1964**	**0.0000**	**281.1898**	**281.1898**	**0.0332**		**281.8860**

3.6 Architectural Coating - 2016

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	0.2416	0.0627	0.7800	1.7000e-003	0.1341	1.1200e-003	0.1353	0.0356	1.0300e-003	0.0366		142.7350	142.7350	7.3200e-003		142.8888
Total	**0.2416**	**0.0627**	**0.7800**	**1.7000e-003**	**0.1341**	**1.1200e-003**	**0.1353**	**0.0356**	**1.0300e-003**	**0.0366**		**142.7350**	**142.7350**	**7.3200e-003**		**142.8888**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

	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	2.6432	2.4720	9.9956	0.0259	1.7298	0.0365	1.7662	0.4622	0.0336	0.4958		2,201.7754	2,201.7754	0.0828		2,203.5147
Unmitigated	2.6138	2.4449	9.8948	0.0256	1.7077	0.0360	1.7438	0.4563	0.0332	0.4895		2,174.4226	2,174.4226	0.0819		2,176.1415

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	235.64	189.20	209.84	769,953	779,881
Total	235.64	189.20	209.84	769,953	779,881

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
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.512163	0.060173	0.180257	0.139094	0.042244	0.006664	0.016017	0.031880	0.001940	0.002497	0.004356	0.000592	0.002122

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	lb/day										lb/day					
NaturalGas Mitigated	0.0252	0.2154	0.0917	1.3700e-003		0.0174	0.0174		0.0174	0.0174		274.9924	274.9924	5.2700e-003	5.0400e-003	276.6659
NaturalGas Unmitigated	0.0252	0.2154	0.0917	1.3700e-003		0.0174	0.0174		0.0174	0.0174		274.9924	274.9924	5.2700e-003	5.0400e-003	276.6659

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					
Congregate Care (Assisted Living)	2337.44	0.0252	0.2154	0.0917	1.3700e-003		0.0174	0.0174		0.0174	0.0174		274.9924	274.9924	5.2700e-003	5.0400e-003	276.6659
Total		**0.0252**	**0.2154**	**0.0917**	**1.3700e-003**		**0.0174**	**0.0174**		**0.0174**	**0.0174**		**274.9924**	**274.9924**	**5.2700e-003**	**5.0400e-003**	**276.6659**

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					
Congregate Care (Assisted Living)	2.33744	0.0252	0.2154	0.0917	1.3700e-003		0.0174	0.0174		0.0174	0.0174		274.9924	274.9924	5.2700e-003	5.0400e-003	276.6659
Total		**0.0252**	**0.2154**	**0.0917**	**1.3700e-003**		**0.0174**	**0.0174**		**0.0174**	**0.0174**		**274.9924**	**274.9924**	**5.2700e-003**	**5.0400e-003**	**276.6659**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

	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	3.4615	0.0835	7.1666	3.7000e-004		0.0389	0.0389		0.0389	0.0389	0.0000	12.7755	12.7755	0.0128	0.0000	13.0448
Unmitigated	25.9966	0.6553	50.3938	0.0692		6.6083	6.6083		6.6073	6.6073	805.5550	1,560.7755	2,366.3305	2.4151	0.0547	2,433.9979

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	0.3163					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	22.5351	0.5718	43.2272	0.0688		6.5694	6.5694		6.5684	6.5684	805.5550	1,548.0000	2,353.5550	2.4023	0.0547	2,420.9531
Landscaping	0.2231	0.0835	7.1666	3.7000e-004		0.0389	0.0389		0.0389	0.0389		12.7755	12.7755	0.0128		13.0448
Total	**25.9966**	**0.6553**	**50.3938**	**0.0691**		**6.6083**	**6.6083**		**6.6073**	**6.6073**	**805.5550**	**1,560.7755**	**2,366.3305**	**2.4151**	**0.0547**	**2,433.9979**

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	0.3163					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9221					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	0.2231	0.0835	7.1666	3.7000e-004		0.0389	0.0389		0.0389	0.0389		12.7755	12.7755	0.0128		13.0448
Total	**3.4615**	**0.0835**	**7.1666**	**3.7000e-004**		**0.0389**	**0.0389**		**0.0389**	**0.0389**	**0.0000**	**12.7755**	**12.7755**	**0.0128**	**0.0000**	**13.0448**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

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 Vegetation

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CITY OF EL MONTE ● SHADE AND SHADOW ANALYSIS
EL MONTE MIXED-USE DEVELOPMENT ● 11707 GARVEY AVENUE & 3100 BASEBALL AVENUE

A Shade and Shadow analysis was prepared for the El Monte mixed-use project that is proposed for 3100 Baseball Avenue and 11707 Garvey Avenue. The Shade and Shadow analysis was conducted using SketchUp and an image overlay derived from Google Earth. The two buildings were erected as accurately as possible and were superimposed over an image of the project site. In order to generate a worst case scenario, four time periods were analyzed. These time periods analyze when the shadows are at their greatest during the winter solstice and when they are at their weakest during the summer solstice. During the winter solstice, the sun appears at its lowest point in the sky. Due to the tilt of the Earth, light emanating from the sun has to travel a greater distance before it reaches the Northern Hemisphere, creating the winter season. During the summer solstice, the tilt of the Earth in the Northern Hemisphere is more inclined towards the sun. Thus, the sun is at its highest point during this time.

A total of two times were analyzed during the winter solstice. These times were 9:00 AM and 4:00 PM, and each time period was represented with its own exhibit. As indicated in the first exhibit (9:00 AM), the shadows generated by the project will impact the residential units located adjacent to Building 2. Shadows generated by Building 1 will affect the southernmost single-family unit located on the east side of La Madera Avenue. The shadows generated by Building 1 will also cover portions of the aforementioned street as well as portions of the vacant lot located along the west side of La Madera Avenue. The second exhibit done for the winter solstice (4:00 PM) indicated that the shadows from both buildings will affect the same residential units located west of the project site. In addition, the shadows generated by Building 2 will affect a single-family residential unit located along the north side of Asher Street. Shadows from Building 1 will affect the single-family residential unit located adjacent to the project site along the east side of Baseball Avenue.

Likewise, two times were analyzed during the summer solstice. These times were 9:00 AM and 4:00 PM, and each time period was represented with its own exhibit. As indicated in the third exhibit (9:00 AM), the shadows generated by the project will have a minimal effect on the adjacent residential units because the sun is located at its highest point. The shadows generated by Building 2 will extend to the driveways of the residential units located immediately to the west. No other impacts to the adjacent residential units will occur during the morning period of the summer solstice. A fourth and final exhibit was done for 4:00 PM during the summer solstice. As indicated in the fourth exhibit, the shadows generated by either building will not affect any of the adjacent uses.

Exhibit 1: Morning (9:00 AM) Winter Solstice Renderings

Exhibit 2: Afternoon (4:00 PM) Winter Solstice Renderings

EXHIBITS 1 AND 2
WINTER SOLSTICE RENDERINGS
Source: SketchUP

Exhibit 3: Morning (9:00 AM) Summer Solstice Renderings

Exhibit 4: Afternoon (4:00 PM) Summer Solstice Renderings

EXHIBITS 3 AND 4
SUMMER SOLSTICE RENDERINGS
Source: SketchUP

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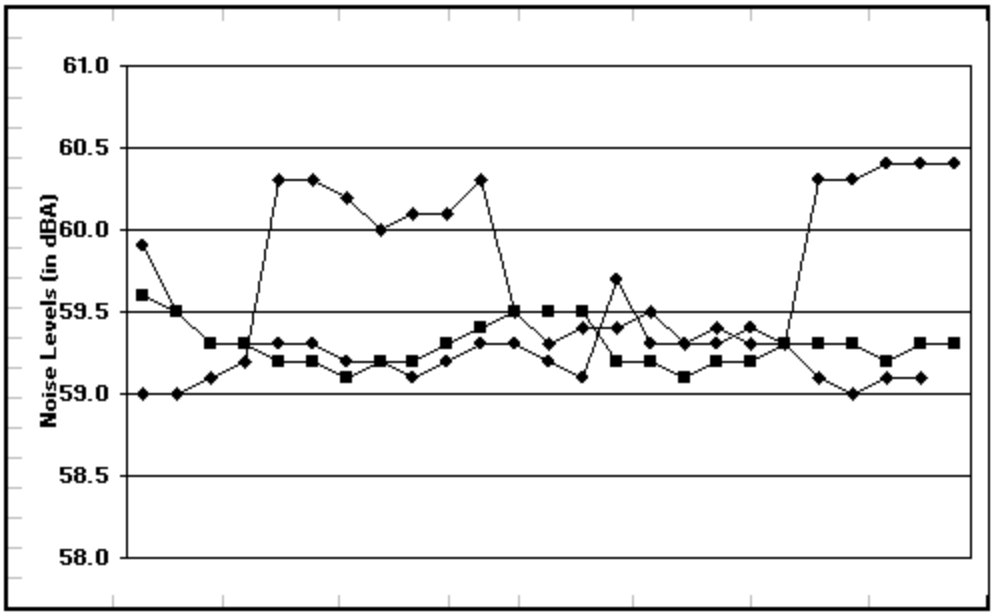
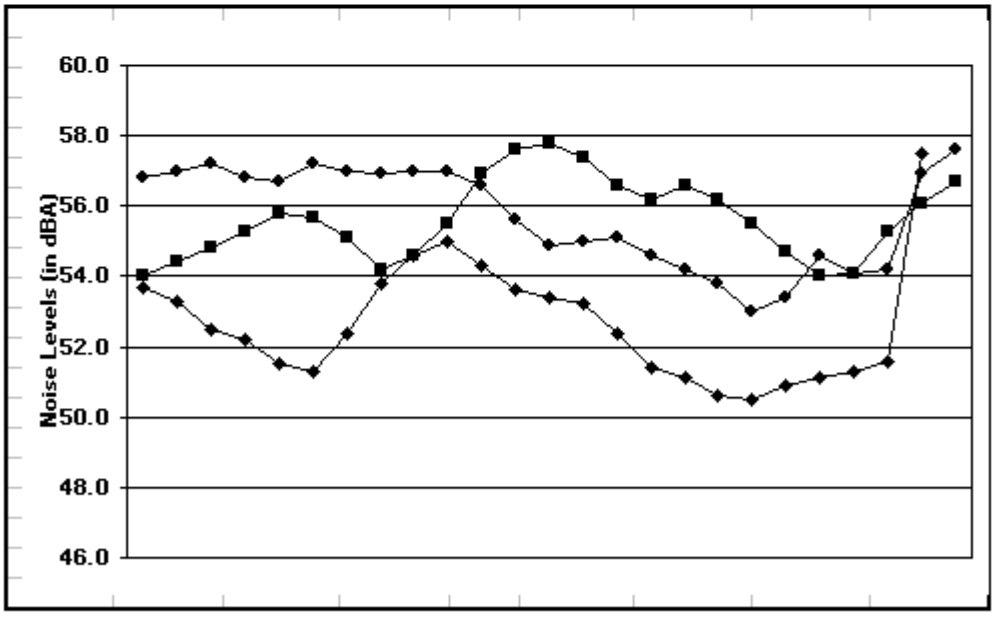
Actual Noise Levels During Measureme				Noise Measurement Results in Leq%				
1-25	26-50	51-75	76-100	L%	1-25	26-50	51-75	76-100
61.1	59.0	59.6	59.9	L_{99}	61.1	60.3	59.6	60.4
60.5	59.0	59.5	59.5		60.5	60.3	59.5	60.4
60.3	59.1	59.3	59.3	L_{90}	60.3	60.3	59.5	60.4
60.1	59.2	59.3	59.3		60.1	60.2	59.5	60.3
54.4	60.3	59.2	59.3		59.2	60.1	59.5	60.3
57.8	60.3	59.2	59.3		59.2	60.1	59.4	59.9
58.7	60.2	59.1	59.2		59.2	60.0	59.3	59.7
58.7	60.0	59.2	59.2		59.1	59.5	59.3	59.5
58.7	60.1	59.2	59.1		59.1	59.5	59.3	59.4
58.6	60.1	59.3	59.2		59.1	59.4	59.3	59.3
58.6	60.3	59.4	59.3		59.0	59.4	59.3	59.3
58.7	59.5	59.5	59.3	L_{50}	59.0	59.4	59.3	59.3
58.7	59.3	59.5	59.2		59.0	59.3	59.3	59.3
58.9	59.4	59.5	59.1		59.0	59.3	59.3	59.3
59.0	59.4	59.2	59.7		59.0	59.3	59.2	59.3
59.0	59.5	59.2	59.3		58.9	59.3	59.2	59.3
59.1	59.3	59.1	59.3		58.7	59.3	59.2	59.3
59.2	59.4	59.2	59.3		58.7	59.2	59.2	59.3
59.2	59.3	59.2	59.4		58.7	59.1	59.2	59.3
59.0	59.3	59.3	59.3	L_{25}	58.7	59.1	59.2	59.2
59.1	59.1	59.3	60.3		58.7	59.1	59.2	59.2
59.0	59.0	59.3	60.3		58.6	59.1	59.2	59.2
59.0	59.1	59.2	60.4	L_{10}	58.6	59.0	59.2	59.2
59.1	59.1	59.3	60.4		57.8	59.0	59.1	59.1
59.2	59.3	59.3	60.4		54.4	59.0	59.1	59.1



Noise Measurements for Baseball Avenue

Source: Blodgett/Baylosis Environmental Planni

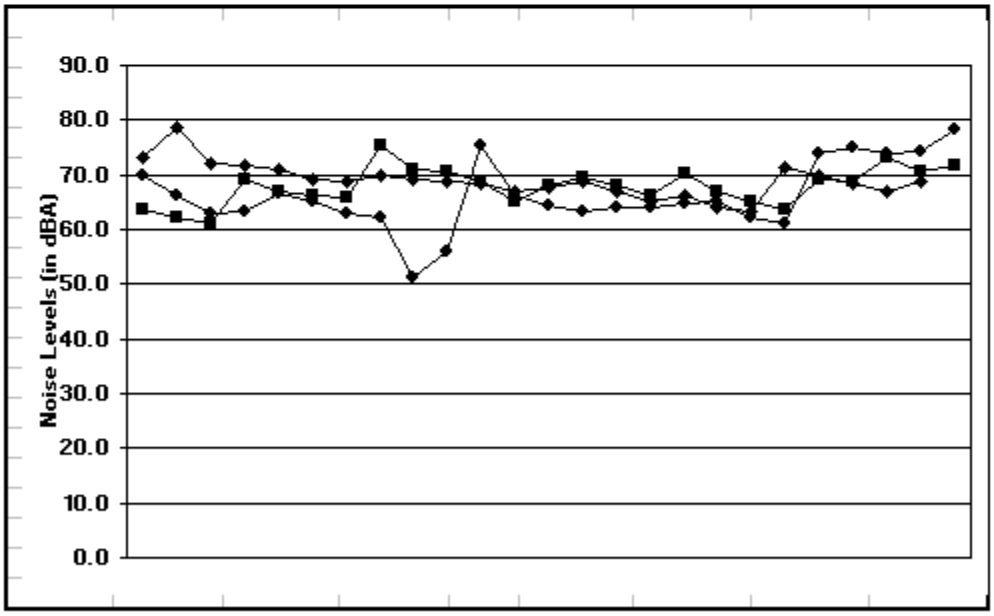
Actual Noise Levels During Measureme				Noise Measurement Results in Leq%				
1-25	26-50	51-75	76-100	L%	1-25	26-50	51-75	76-100
65.1	53.7	54.0	56.8	L_{99}	65.1	57.5	57.8	57.6
63.2	53.3	54.4	57.0		63.2	55.0	57.6	57.2
62.1	52.5	54.8	57.2	L_{90}	62.1	54.6	57.4	57.2
61.1	52.2	55.3	56.8		61.1	54.3	56.9	57.0
60.3	51.5	55.8	56.7		60.3	53.8	56.7	57.0
50.1	51.3	55.7	57.2		54.4	53.7	56.6	57.0
50.4	52.4	55.1	57.0		54.2	53.6	56.6	57.0
51.1	53.8	54.2	56.9		54.0	53.4	56.2	56.9
51.7	54.6	54.6	57.0		53.3	53.4	56.2	56.9
51.5	55.0	55.5	57.0		51.7	53.3	56.1	56.8
51.5	54.3	56.9	56.6		51.6	53.2	55.8	56.8
51.6	53.6	57.6	55.6	L_{50}	51.5	52.5	55.7	56.7
51.1	53.4	57.8	54.9		51.5	52.4	55.5	56.6
50.8	53.2	57.4	55.0		51.2	52.4	55.5	55.6
51.2	52.4	56.6	55.1		51.2	52.2	55.3	55.1
51.0	51.4	56.2	54.6		51.1	51.6	55.3	55.0
50.8	51.1	56.6	54.2		51.1	51.5	55.1	54.9
50.6	50.6	56.2	53.8		51.0	51.4	54.8	54.6
50.4	50.5	55.5	53.0		50.9	51.3	54.7	54.6
50.9	50.9	54.7	53.4	L_{25}	50.8	51.3	54.6	54.2
51.2	51.1	54.0	54.6		50.8	51.1	54.4	54.2
53.3	51.3	54.1	54.1		50.6	51.1	54.2	54.1
54.2	51.6	55.3	54.2	L_{10}	50.4	50.9	54.1	53.8
54.4	57.5	56.1	56.9		50.4	50.6	54.0	53.4
54.0	53.4	56.7	57.6		50.1	50.5	54.0	53.0



Noise Measurements for Center of Site

Source: Blodgett/Baylosis Environmental Plan

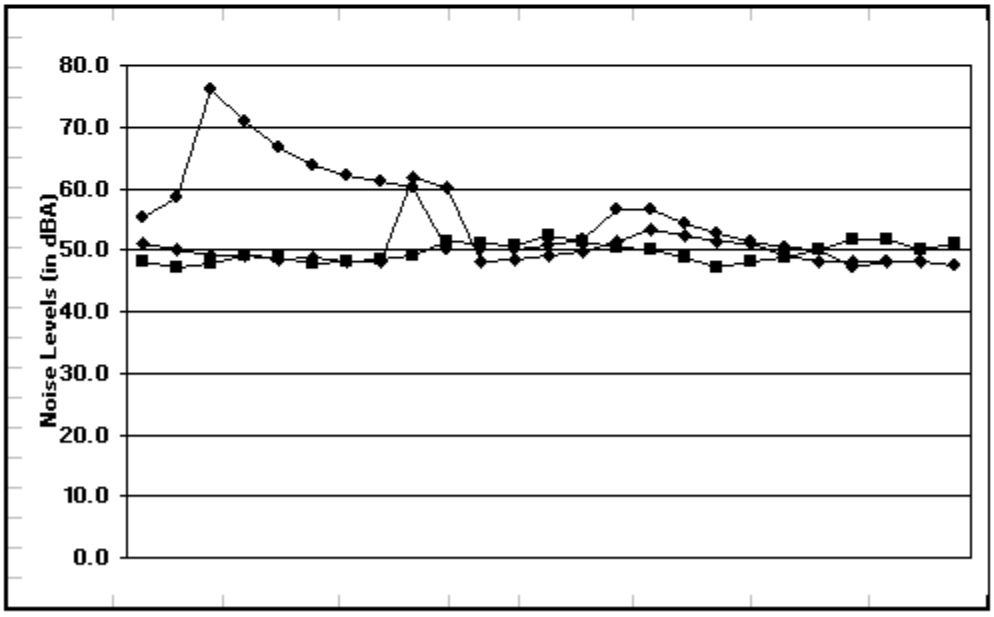
Actual Noise Levels During Measureme				Noise Measurement Results in Leq%				
1-25	26-50	51-75	76-100	L%	1-25	26-50	51-75	76-100
75.5	73.1	63.5	70.0	L_{99}	75.5	78.5	75.5	78.2
75.0	78.5	62.2	66.2		75.0	73.1	73.1	75.5
73.3	72.2	61.1	63.0	L_{90}	73.3	72.2	71.8	75.0
73.1	71.8	69.1	63.2		73.1	71.8	71.1	74.1
72.8	71.1	67.0	66.7		72.8	71.3	70.7	74.0
68.8	69.1	66.1	65.1		72.0	71.1	70.7	73.9
66.7	68.8	65.9	63.1		69.5	70.0	70.1	70.0
69.0	69.9	75.5	62.1		69.2	69.9	69.5	66.7
69.2	69.2	71.1	51.2		69.0	69.2	69.1	66.2
68.8	68.8	70.7	55.9		68.8	69.1	69.1	66.1
67.0	68.3	68.8	75.5		68.8	68.8	68.9	65.1
66.6	66.9	65.2	66.1	L_{50}	67.0	68.8	68.8	65.0
65.3	67.7	68.0	64.3		66.7	68.8	68.0	64.9
63.4	68.8	69.5	63.2		66.6	68.7	68.0	64.3
62.2	67.1	68.0	64.0		66.1	68.4	67.1	64.0
60.6	65.3	66.2	64.0		65.3	68.4	67.0	64.0
59.5	66.4	70.1	64.9		64.1	68.3	66.2	63.2
72.0	64.0	67.1	65.0		63.4	67.7	66.1	63.2
66.1	63.4	65.3	62.1		63.1	67.1	65.9	63.1
64.1	71.3	63.7	61.1	L_{25}	62.2	67.0	65.3	63.0
63.1	70.0	69.1	73.9		60.6	66.9	65.2	62.1
49.1	68.4	68.9	75.0		59.5	66.4	63.7	62.1
50.0	67.0	73.1	74.0	L_{10}	51.6	65.3	63.5	61.1
51.6	68.7	70.7	74.1		50.0	64.0	62.2	55.9
69.5	68.4	71.8	78.2		49.1	63.4	61.1	51.2



Noise Measurements for Garvey Avenue

Source: Blodgett/Baylosis Environmental Planni

Actual Noise Levels During Measureme				Noise Measurement Results in Leq%				
1-25	26-50	51-75	76-100	L%	1-25	26-50	51-75	76-100
60.8	51.0	48.0	55.4	L_{99}	60.8	61.8	52.4	76.0
50.1	50.1	47.2	58.5		52.2	60.2	51.8	70.9
50.2	49.2	47.7	76.0	L_{90}	52.0	53.3	51.7	66.7
49.2	49.1	49.0	70.9		51.4	52.2	51.3	63.7
48.6	48.4	48.9	66.7		50.6	51.4	51.3	62.0
47.7	48.8	47.7	63.7		50.6	51.4	51.2	61.0
48.0	48.2	48.1	62.0		50.5	51.0	51.1	60.2
47.9	48.0	48.3	61.0		50.4	51.0	50.7	58.5
47.9	61.8	49.0	60.2		50.2	50.1	50.4	56.6
47.6	60.2	51.3	50.0		50.1	49.9	50.2	56.5
47.7	48.2	51.1	50.1		50.1	49.2	50.1	55.4
47.8	48.3	50.7	50.1	L_{50}	50.1	49.1	50.0	54.3
47.6	49.0	52.4	50.8		50.0	49.0	49.0	52.6
49.4	49.9	51.3	51.7		49.9	49.0	49.0	51.7
50.1	51.4	50.4	56.5		49.4	48.9	48.9	51.5
49.9	53.3	50.0	56.6		49.2	48.8	48.8	50.8
50.0	52.2	48.8	54.3		48.6	48.4	48.7	50.5
50.4	51.4	47.3	52.6		48.0	48.3	48.3	50.1
50.6	51.0	48.2	51.5		47.9	48.2	48.2	50.1
52.2	49.0	48.7	50.5	L_{25}	47.9	48.2	48.1	50.0
52.0	48.1	50.1	50.0		47.8	48.2	48.0	50.0
50.5	48.1	51.7	47.2		47.7	48.1	47.7	48.1
50.1	48.0	51.8	48.1	L_{10}	47.7	48.1	47.7	48.0
50.6	48.2	50.2	48.0		47.6	48.0	47.3	47.5
51.4	48.9	51.2	47.5		47.6	48.0	47.2	47.2



Noise Measurements for La Madera Avenue

Source: Blodgett/Baylosis Environmental Planni

LINSCOTT LAW & GREENSPAN engineers

TRAFFIC IMPACT STUDY

EL MONTE MIXED-USE PROJECT

City of El Monte, California
April 28, 2016

Prepared for:
Soo Properties, LLC
25 East Huntington Drive
Arcadia, California 91006

LLG Ref. 1-15-4125-1

REGISTERED PROFESSIONAL ENGINEER
CLARE M. LOOK-JAEGER
TR1878
EXP. 06/30/17
TRAFFIC
STATE OF CALIFORNIA

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TRAFFIC IMPACT STUDY

EL MONTE MIXED-USE PROJECT

City of El Monte, California
April 28, 2016

1.0 INTRODUCTION

This traffic analysis has been conducted to identify and evaluate the potential traffic impacts of the proposed El Monte Mixed-Use project on the surrounding street system. The proposed El Monte Mixed-Use project is situated on the north side of Garvey Avenue east of La Madera Avenue in the City of El Monte, California. The proposed project site and general vicinity are shown in ***Figure 1-1***.

The traffic analysis follows City of El Monte traffic study guidelines and is consistent with traffic impact assessment guidelines set forth in the *Los Angeles County Congestion Management Program*[1]. This traffic analysis evaluates potential project-related impacts at seven (7) key intersections in the vicinity of the proposed project site. The study intersections were determined in consultation with City of El Monte staff. The Intersection Capacity Utilization method was used to determine volume-to-capacity ratios and corresponding Levels of Service at the signalized study intersections, and the Highway Capacity Manual methodology was utilized to evaluate the stop-sign controlled study intersections. A review also was conducted of Los Angeles County Metropolitan Transportation Authority freeway and intersection monitoring stations to determine if a Congestion Management Program transportation impact assessment analysis is required for the proposed project.

This study (i) presents existing traffic volumes, (ii) includes existing traffic volumes with the forecast traffic volumes from the proposed project, (iii) recommends mitigation measures, where necessary, (iv) forecasts future cumulative baseline traffic volumes, (v) forecasts future traffic volumes with the proposed project, (vi) determines future forecast with project-related impacts for each future analysis condition, and (vii) recommends mitigation measures, where necessary.

1.1 Study Area

Upon coordination with City of El Monte staff, seven study intersections were identified for evaluation during the weekday morning and afternoon peak hours. The seven study intersections provide local access to the study area and define the extent of the boundaries for this traffic impact analysis. Further discussion of the existing street system and study area is provided in Section 4.0.

The general location of the project in relation to the study locations and surrounding street system is presented in *Figure 1-1*. The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the proposed project as defined by the Lead Agency.

[1] *2010 Congestion Management Program*, Los Angeles County Metropolitan Transportation Authority, October 2010.

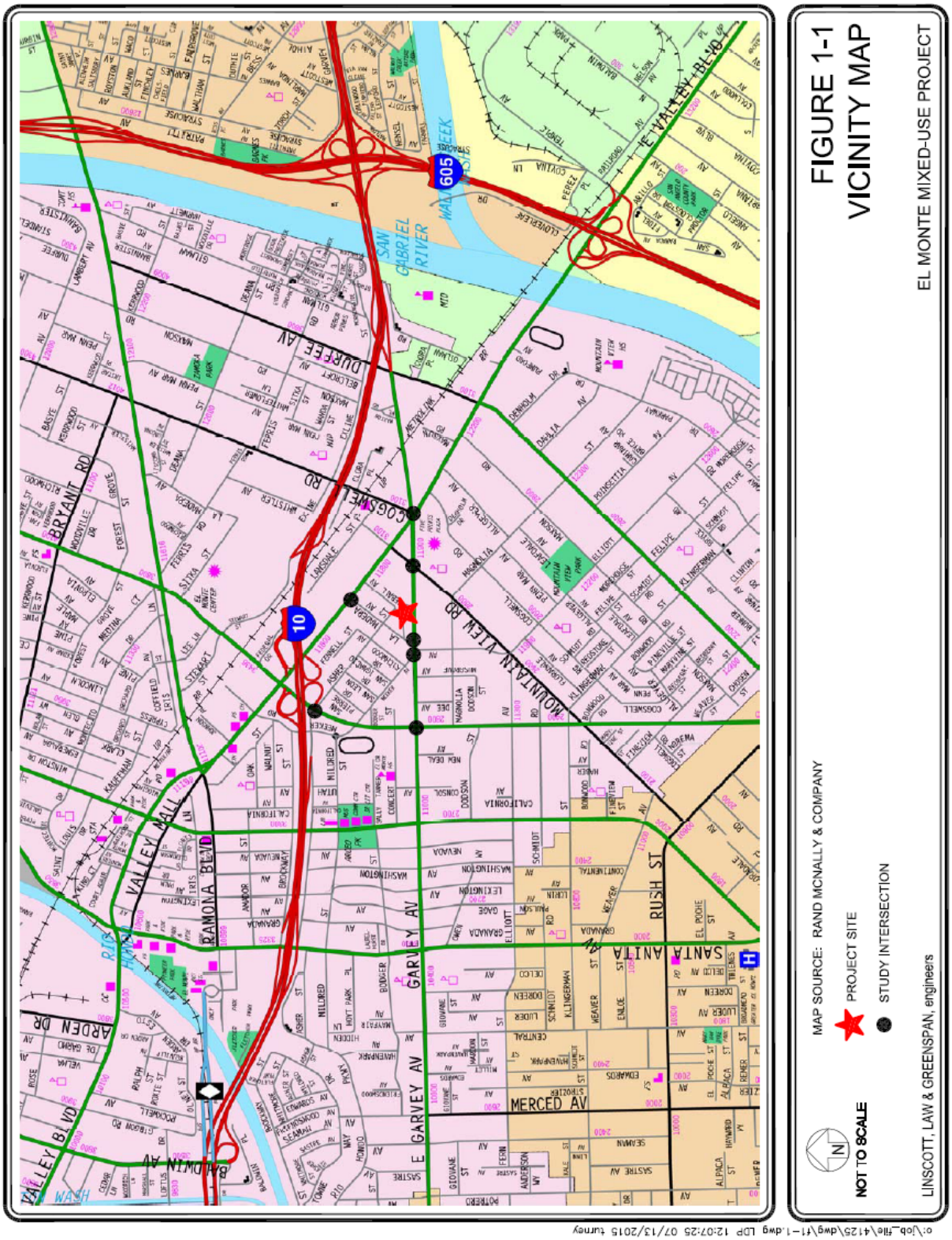
FIGURE 1-1
VICINITY MAP
EL MONTE MIXED-USE PROJECT
MAP SOURCE: RAND MCNALLY & COMPANY
PROJECT SITE
STUDY INTERSECTION
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
605
10
SAN GABRIEL RIVER
RAMONA BLVD
VALLEY MALL
GARVEY AV
E GARVEY AV
MERCED AV
RUSH ST
SANTA ANITA
MOUNTAIN VIEW RD
COGSWELL RD
DURFEE AV
BRYANT RD
E VALLEY BLVD
BALDWIN AV
ARDEN DR
RAILROAD
WASH
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- 2 -

In the traffic engineering practice, the study area generally includes those intersections that are:

a. Immediately adjacent or in close proximity to the project site;

b. In the vicinity of the project site that are documented to have current or projected future adverse operational issues; and

c. In the vicinity of the project site that are forecast to experience a relatively greater percentage of project-related vehicular turning movements (e.g., at freeway ramp intersections).

The locations selected for analysis were based on the above criteria, proposed project peak hour vehicle trip generation, the anticipated distribution of project vehicular trips, and existing intersection/corridor operations.

2.0 PROJECT DESCRIPTION

2.1 Site Location

The project site is located at 11707 Garvey Avenue and 3100 Baseball Avenue just south of the I-10 Freeway in the City of El Monte, California. The proposed El Monte Mixed-Use project is situated on the north side of Garvey Avenue east of La Madera Avenue. The proposed project site and general vicinity is illustrated in *Figure 1-1*.

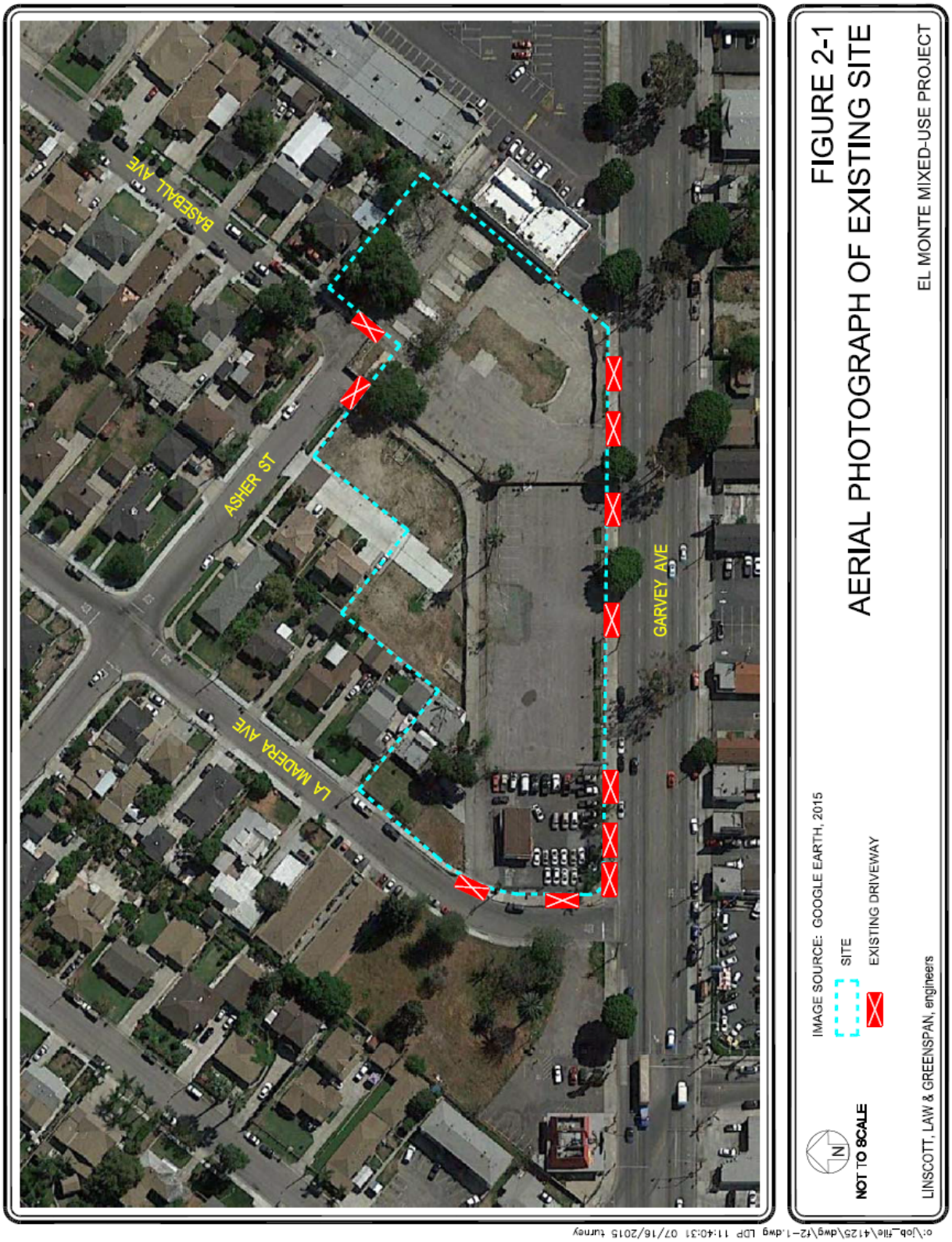
2.2 Existing Setting and Project Site

The existing project site is comprised of approximately 2.98 acres (130,045 square feet) and is predominately unoccupied with the exception of a resale automobile dealership (Valparaiso Motors) located at the southwestern portion of the site. All of the existing buildings will be demolished as part of the proposed project. Vehicular access to the various project parcels is presently provided via a total of seven driveways on Garvey Avenue, an existing alley access and one driveway on La Madera Avenue, an existing alley access on Asher Street, and one driveway on Baseball Avenue. An aerial photograph of the existing project site and adjacent street conditions is presented in ***Figure 2-1***.

2.3 Proposed Project Description

The proposed project is a mixed-use development planned to consist of a mix of senior apartment units, assisted living units, and special needs (memory loss care) units, as well as various ground floor retail and restaurant uses. Two buildings are proposed, with one building fronting Garvey Avenue which would include up to 7,828 gross square feet of ground floor retail space, 8,740 square feet of high-turnover (sit-down) restaurant use, an approximately 1,500 square-foot coffee shop type use, and 1,500 square feet of bagel/donut shop use. The upper levels of this building would also include up to 78 beds for the assisted living component and 28 units for the senior apartments. The second building is situated north of (behind) the first building and is planned to provide up to 40 total beds for the memory loss/special needs component which will be shared in 20 dwelling units. Completion of the building construction and occupancy of the proposed El Monte Mixed-Use project is anticipated in year 2018. The site plan for the proposed project is illustrated in ***Figure 2-2***.

Based on information provided by the Project Applicant, a total of 119 parking spaces (109 standard spaces, 6 handicap accessible spaces, 2 electric vehicle charging station spaces, and 2 loading spaces) is planned to be provided site-wide to accommodate the proposed El Monte Mixed-Use project. For parking facilities that range between 101 and 150 total spaces, the American with Disabilities Act (ADA) requirement is a minimum of five handicap accessible spaces. The project will provide a total of six handicap accessible spaces (three of which are van accessible spaces) which exceeds the ADA requirement. In accordance with the California Green Building Code, the project will also provide two (2) electric vehicle charging station spaces which satisfies the standards identified in Table 17.45.050B of the Municipal Code for parking facilities between 51 to 200 spaces.


BASEBALL AVE
ASHER ST
LA MADERA AVE
GARVEY AVE
FIGURE 2-1
AERIAL PHOTOGRAPH OF EXISTING SITE
EL MONTE MIXED-USE PROJECT
IMAGE SOURCE: GOOGLE EARTH, 2015
SITE
EXISTING DRIVEWAY
N
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
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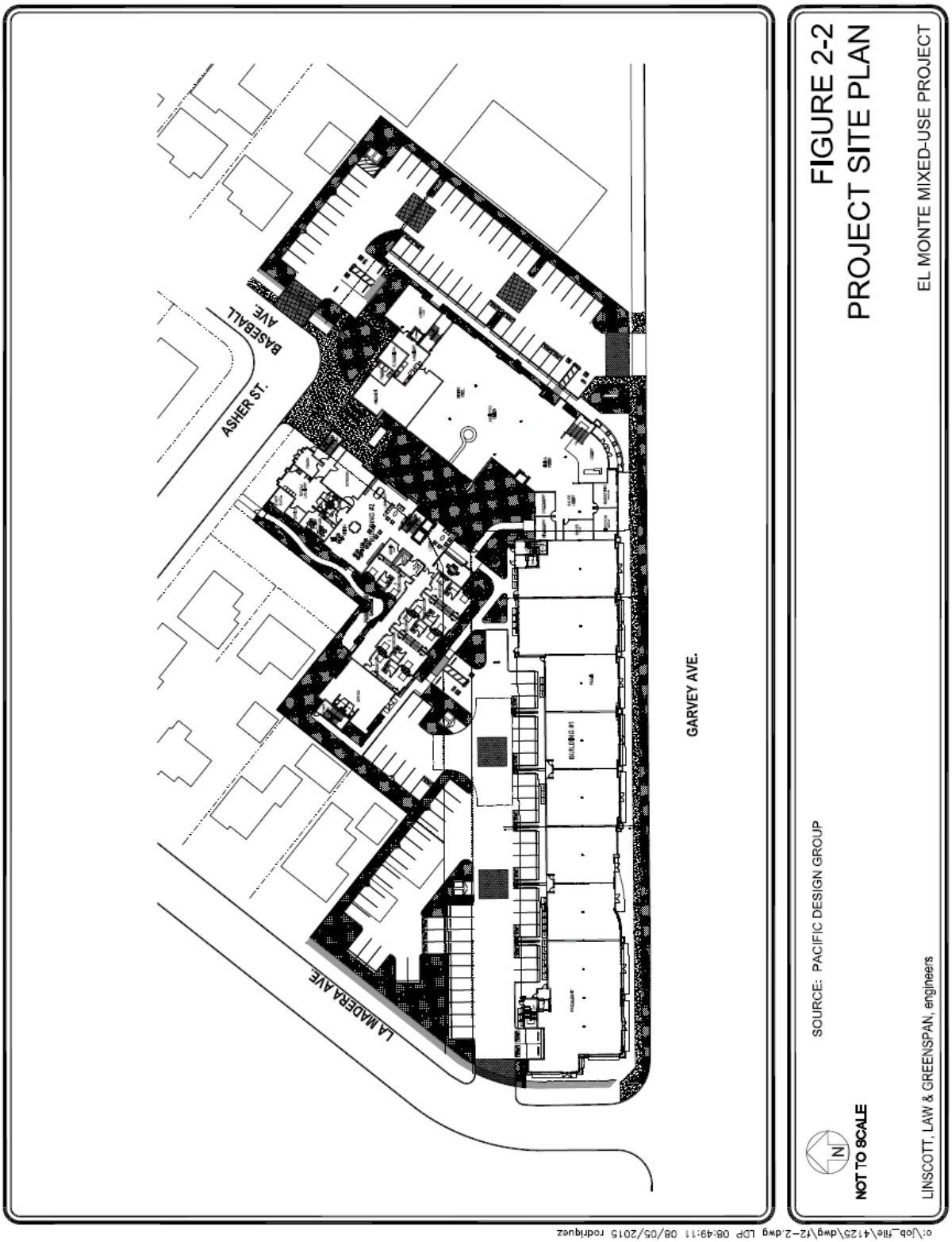

BASEBALL AVE.
ASHER ST.
LA MADERA AVE
GARVEY AVE.
FIGURE 2-2
PROJECT SITE PLAN
EL MONTE MIXED-USE PROJECT
SOURCE: PACIFIC DESIGN GROUP
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
o:\Job_file\4125\dwg\f2-2.dwg LDP 08:49:11 08/05/2015 rodriguez

Based on information provided by the Project Applicant, 17 parking spaces will be gated for the exclusive use by residents of the senior apartments and thus will be separated from the rest of the on-site parking supply. As a result, up to 102 parking spaces (i.e., 119 spaces provided – 17 spaces provided for only the senior housing component = 102 spaces), are expected to be shared between the various other uses on-site.

Vehicular access to the project site will be greatly consolidated when compared to the existing access scheme. A total of three (3) driveways: one on Garvey Avenue, one on La Madera Avenue and one on Baseball Avenue will be provided. Further discussion of the project's site access and circulation scheme is provided in Section 3.0 herein.

3.0 SITE ACCESS AND CIRCULATION

The proposed site access and circulation scheme for the project is displayed in *Figure 2-2*. Descriptions of the existing and proposed site access and circulation schemes are provided in the following subsections.

3.1 Existing Vehicular Site Access

Vehicular access to the various project parcels is presently provided via a total of seven driveways on Garvey Avenue, an existing alley access and one driveway on La Madera Avenue, an existing alley access on Asher Street, and one driveway on Baseball Avenue. The existing alley, which currently provides a connection between La Madera Avenue and Asher Street, will be closed and vacated as part of the proposed El Monte Mixed-Use project since the parcels north of the south of the alley will be consolidated as part of the overall total project site. All of the existing site driveways currently accommodate full access (i.e., left-turn and right-turn ingress and egress turning movements).

3.2 Proposed Project Vehicular Site Access

The site access scheme for the proposed project is displayed in *Figure 2-2*. Vehicular access to the project site will be provided via a total of three (3) driveways: one on Garvey Avenue, one on La Madera Avenue, and one on Baseball Avenue. Brief descriptions of the planned project site access points are provided in the following paragraphs.

- *Garvey Avenue Project Driveway*

  The Garvey Avenue driveway is located near the eastern boundary of the project site and will serve the senior housing/assisted living/memory loss care component of the project as well as the retail and restaurant commercial uses. Access to the easterly surface parking lot (i.e., which will include the 17 parking spaces designated for the senior housing use) will also be provided by this 30-foot wide driveway. The driveway is planned to provide one inbound and one outbound travel lane with full access (i.e., both left-turn and right-turn ingress and egress turning movements). This driveway will be constructed to City of El Monte design standards.

- *La Madera Avenue Project Driveway*

  The La Madera Avenue driveway will also serve the assisted living/memory loss care component of the project as well as the ground floor retail and restaurant commercial uses. This driveway will provide access to the westerly surface parking lot. This driveway is also planned to provide one inbound and one outbound travel lane and is proposed to provide full access (i.e., both left-turn and right-turn ingress and egress turning movements). The driveway will be constructed to City of El Monte design standards.

- *Baseball Avenue Project Driveway (Emergency Access Only Driveway)*

  This driveway is located near the terminus of Asher Street and Baseball Avenue and is planned to be gated and closed to the residents and patrons of the site. This driveway will only be utilized for access by the Fire Department and other emergency vehicles/personnel. The driveway will be constructed to City of El Monte design standards.

3.3 Pedestrian Access

The proposed project should be designed to encourage pedestrian activity and walking as a transportation mode[2]. The proposed project will provide landscaping along the periphery and interior of the project site. As indicated in *Figure 2-2*, the walkways planned within the proposed project will connect to adjacent sidewalks in a manner that promotes walkability. Walkability is a term for the extent to which walking is readily available as a safe, connected, accessible and pleasant mode of transport. There are several criteria that are widely accepted as key aspects of the walkability of urban areas that should be satisfied. The underlying principle is that pedestrians should not be delayed, diverted, or placed in danger. The widely accepted characteristics of walkability are as follows:

- Connectivity: People can walk from one place to another without encountering major obstacles, obstructions, or loss of connectivity.
- Convivial: Pedestrian routes are friendly and attractive, and are perceived as such by pedestrians.
- Conspicuous: Suitable levels of lighting, visibility and surveillance over its entire length, with high quality delineation and signage.
- Comfortable: High quality and well-maintained footpaths of suitable widths, attractive landscaping and architecture, shelter and rest spaces, and a suitable allocation of roadspace to pedestrians.
- Convenient: Walking is a realistic travel choice, partly because of the impact of the other criteria set forth above, but also because walking routes are of a suitable length as a result of land use planning with minimal delays.

A review of the project site plan and pedestrian walkway network indicates that these five primary characteristics are accommodated as part of the proposed project. The project site is adjacent to and accessible from nearby commercial uses and other amenities along adjacent arterial corridors, as well as nearby public bus transit stops. The pedestrian walkways within the site and the adjacent sidewalk reconstruction along the project frontage on Garvey Avenue will be appropriately

[2] For example, refer to http://www.walkscore.com/, which generates a walkability score of approximately 68 (Somewhat Walkable) out of 100 for the project site. Walk Score calculates the walkability of an address by locating nearby stores, restaurants, schools, parks, etc. Walk Score measures how easy it is to live a car-lite lifestyle—not how pretty the area is for walking.

landscaped and designed to provide a friendly walking environment. Additionally, the walkways will be well lit and include appropriate wayfinding signage.

3.4 Bicycle Access

The Federal and State transportation system recognizes three primary bikeway facilities: Bicycle Paths (Class I), Bicycle Lanes (Class II), and Bicycle Routes (Class III). Bicycle Paths (Class I) are exclusive car free facilities that are typically not located within a roadway area. Bicycle Lanes (Class II) are part of the street design that is dedicated only for bicycles and identified by a striped lane separating vehicle lanes from bicycle lanes. Bicycle Routes (Class III) are preferably located on collector and lower volume arterial streets.

Use of bicycles as a transportation mode to and from the project site will be encouraged by the provision of ample and safe parking. As identified in the City Zoning Code (refer to Chapter 5.92, Transportation Demand Management Program, and Chapter 17.45.100, Vertical Mixed-Use Development), the required number of bicycle parking spaces for nonresidential and residential development is listed below:

- "Bicycle racks or other secure bicycle parking shall be provided to accommodate four (4) bicycles per the first 50,000 square feet of nonresidential development and one bicycle per each additional fifty thousand (50,000) square feet of nonresidential development. Calculations which result in a fraction of 0.5 or higher shall be rounded up to the nearest whole number. A bicycle parking facility may also be a fully enclosed space or locker accessible only to the owner or operator of the bicycle, which protects the bike from inclement weather. Specific facilities and location (e.g., provision of racks, lockers, or locked room) shall be to the satisfaction of the city."

- "Bicycle Storage Areas. All vertical mixed use developments shall provide common bicycle storage areas for the residents as follows: two (2) bicycle storage units for every five (5) dwelling units for the first twenty (20) units, and one bicycle storage unit for every five (5) additional dwelling units."

The type of bicycle spaces and dimensions will be provided based on City Code requirements, as well as to meet the needs of a variety of bicycles. A total of five (5) bicycle spaces will be provided in readily accessible locations. The selected locations will encourage use and maintain visibility for personal safety and theft protection. As needed, the project applicant will include site improvements such as planting and trash receptacles wherever bicycle parking is provided. Further, appropriate lighting will be provided to increase safety and provide theft protection during night-time parking.

4.0 EXISTING STREET SYSTEM

4.1 Regional Highway System

Regional access to the project site is provided by I-10 (San Bernardino) Freeway as shown in *Figure 1-1*. I-10 (San Bernardino) Freeway is a major east-west oriented freeway that extends from the City of Santa Monica to the west to San Bernardino and further to the State of Arizona to the east. In the project vicinity, four to five mainline travel lanes and two High Occupancy Toll (HOT) travel lanes are provided in each direction. In the immediate project vicinity, access to I-10 Freeway is provided via Peck Road and Valley Boulevard north of the project site, as well as on Garvey Avenue, east of the project site.

4.2 Local Street System

Immediate access to the project site is planned to be provided via Garvey Avenue and La Madera Avenue. The seven (7) study intersections were determined in consultation with staff from the City of El Monte Departments of Public Works and Economic Development - Planning Division in order to determine potential impacts related to the proposed project:

1. Peck Road/Asher Street [a]
2. Peck Road/Garvey Avenue
3. Meeker Avenue/Garvey Avenue
4. La Madera Avenue/Valley Boulevard [a]
5. La Madera Avenue/Garvey Avenue [a]
6. Mountain View Road/Garvey Avenue
7. Valley Boulevard/Garvey Avenue

[a] Two-way stop-sign controlled intersection.

The study intersections selected for analysis in the traffic study also are noted in *Figure 1-1*. Of the seven existing study intersections, four study intersections are presently controlled by traffic signals and three study intersections are currently stop-sign controlled. The existing lane configurations and intersection controls at the study intersections are displayed in ***Figure 4-1***.

4.3 Roadway Classifications

The City of El Monte utilizes the roadway categories recognized by regional, state and federal transportation agencies. There are four categories in the roadway hierarchy, ranging from freeways with the highest capacity to two-lane undivided roadways with the lowest capacity. The roadway categories are summarized as follows:

- ***Freeways*** are limited-access and high speed travel ways included in the state and federal highway systems. Their purpose is to carry regional through-traffic. Access is provided by

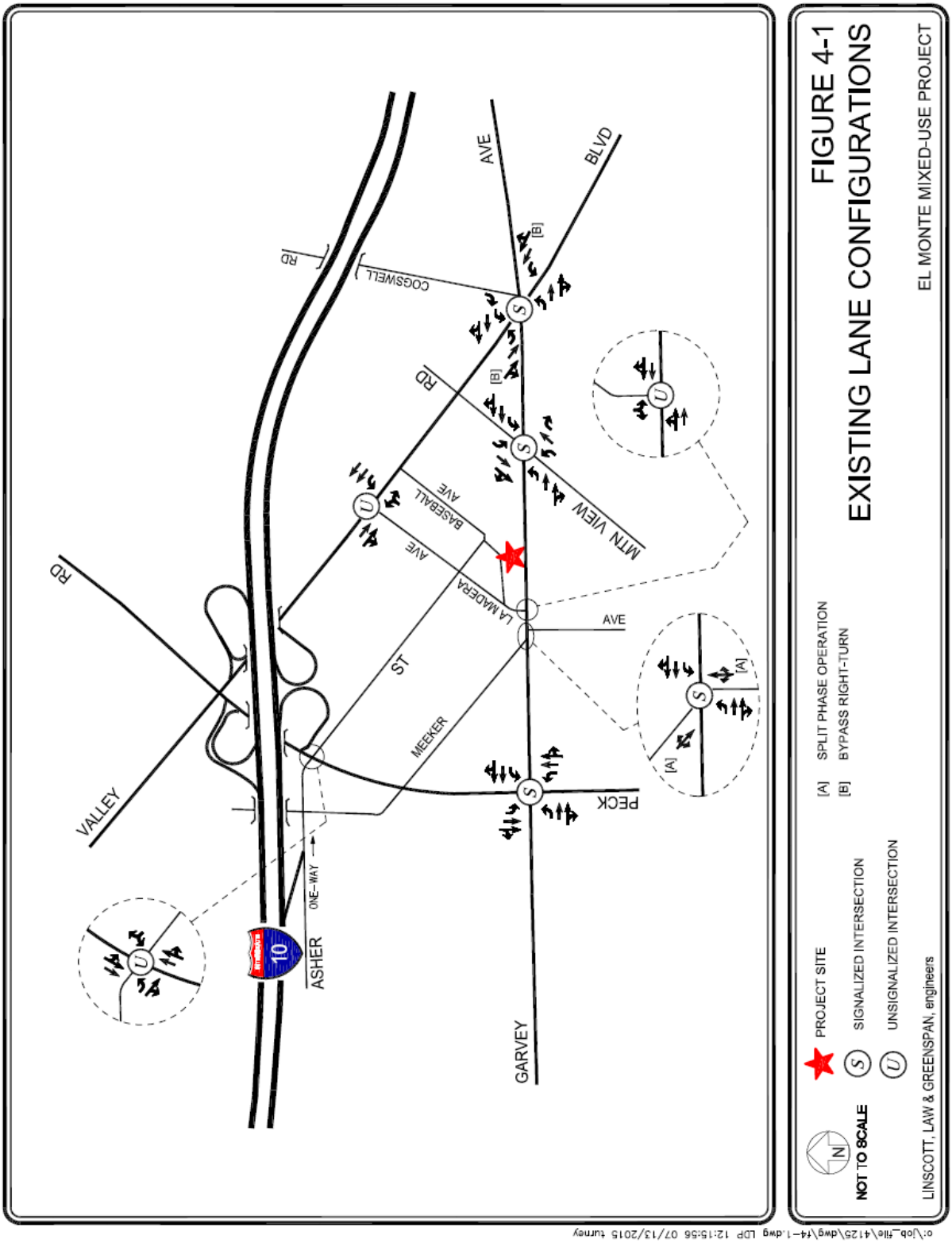


FIGURE 4-1
EXISTING LANE CONFIGURATIONS
EL MONTE MIXED-USE PROJECT
PROJECT SITE
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION
[A] SPLIT PHASE OPERATION
[B] BYPASS RIGHT-TURN
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
VALLEY
RD
ASHER
ONE-WAY
10
GARVEY
MEEKER
ST
PECK
AVE
LA MADERA
BASEBALL
AVE
MTN VIEW
RD
COGSWELL
RD
AVE
BLVD
[A]
[B]

interchanges with typical spacing of one mile or greater. No local access is provided to adjacent land uses.

- ***Arterial*** roadways are major streets that primarily serve through-traffic and provide access to abutting properties as a secondary function. Arterials are generally designed with two to six travel lanes and their major intersections are signalized. This roadway type is divided into two categories: principal and minor arterials. Principal arterials are typically four-or-more lane roadways and serve both local and regional through-traffic. Minor arterials are typically two-to-four lane streets that service local and commute traffic.

  Pursuant to the City of El Monte "Vision El Monte" General Plan June 2011, the following definitions are noted for Arterial Roadways:

  Major Arterials: These streets carry traffic from one part of the City to another and connect to the highway system. Arterials carry the highest volumes of traffic at the highest speeds, with limited interference to traffic flow. Major arterials typically function as truck routes and emergency response routes. However, they are not exclusively auto-dominated streets; they may serve as major transit corridors and need to accommodate convenient and safe pedestrian travel.

  Secondary Arterials: Secondary arterials carry traffic from one part of the community to another and connect to major arterials. Secondary arterials typically carry lower volumes, principally local traffic, and are used for shorter trips to activity centers, jobs, residences, schools, and other local destinations. Secondary arterials are often used for transit, bicyclists, and pedestrians. Depending on the roadway width, trucks may have limited access to secondary arterials.

- ***Collector*** roadways are streets that provide access and traffic circulation within residential and non-residential (e.g., commercial and industrial) areas. Collector roadways connect local streets to arterials and are typically designed with two through travel lanes (i.e., one through travel lane in each direction) that may accommodate on-street parking. They may also provide access to abutting properties.

  Pursuant to the City of El Monte "Vision El Monte" General Plan June 2011, the following definitions are noted for Collector Roadways:

  Collectors: Collector streets are intermediate routes; they connect residential neighborhoods to each another and neighborhoods to commercial and other districts in El Monte. They collect traffic from local streets in residential neighborhoods and channel it onto arterials. Collector streets may also carry local transit service. Finally, collectors often serve as the primary bicycle routes in the community and also accommodate pedestrian travel. Most collector streets have two lanes.

- ***Local*** roadways distribute traffic within a neighborhood, or similar adjacent neighborhoods, and are not intended for use as a through-street or a link between higher capacity facilities

such as collector or arterial roadways. Local streets are fronted by residential uses and do not typically serve commercial uses.

Pursuant to the City of El Monte "Vision El Monte" General Plan June 2011, the following definitions are noted for Local Roadways:

Local Streets: Local streets serve local land uses, typically residential neighborhoods, and provide direct access to individual parcels. Local streets typically carry the lowest volume of traffic, which is nearly exclusively local traffic. Local streets, being the primary means for residents to get around their neighborhood, should also accommodate bicycles and local pedestrian circulation. Speeds on local streets are relatively low, and on-street parking is often permitted. In some cases, however, local streets serve commercial and industrial uses.

4.4 Roadway Descriptions

A review of the important roadways in the project site vicinity and study area is summarized in ***Table 4-1***. As indicated in *Table 4-1*, the important roadways within the project study area were reviewed in terms of the number of lanes provided, posted speed limits, etc. Additionally, the roadway classifications are also presented in *Table 4-1*.

4.5 Public Transit Services

The City of El Monte is home to significant public transit facilities and services. The El Monte Transit Station (EMTS) is a regional bus hub in downtown with direct access to the El Monte Busway, one of the most successful dedicated bus/high occupancy vehicle (HOV) lanes in the country. Both the Los Angeles County Metropolitan Transportation Authority (Metro) and Foothill Transit operate many routes that run through El Monte and converge at the EMTS. The following sections provide an overview of the regional rail service and local transit services provided through and within the City of El Monte.

4.5.1 Regional Rail Transit Network Connections

Los Angeles County and surrounding counties are interconnected by a regional network of rail lines, with Union Station in Downtown Los Angeles functioning as the hub of the rail system. Amtrak, Metro, and the Southern California Regional Rail Authority (SCRRA) operate a system of heavy rail, light rail and subway lines that provide interconnections throughout Los Angeles County and connections between the six county Southern California region including Los Angeles County, Orange County, Riverside County, San Bernardino County, San Diego County and Ventura County. An illustration of the regional rail network serving the greater Los Angeles region and Southern California is presented in ***Figure 4-2***.

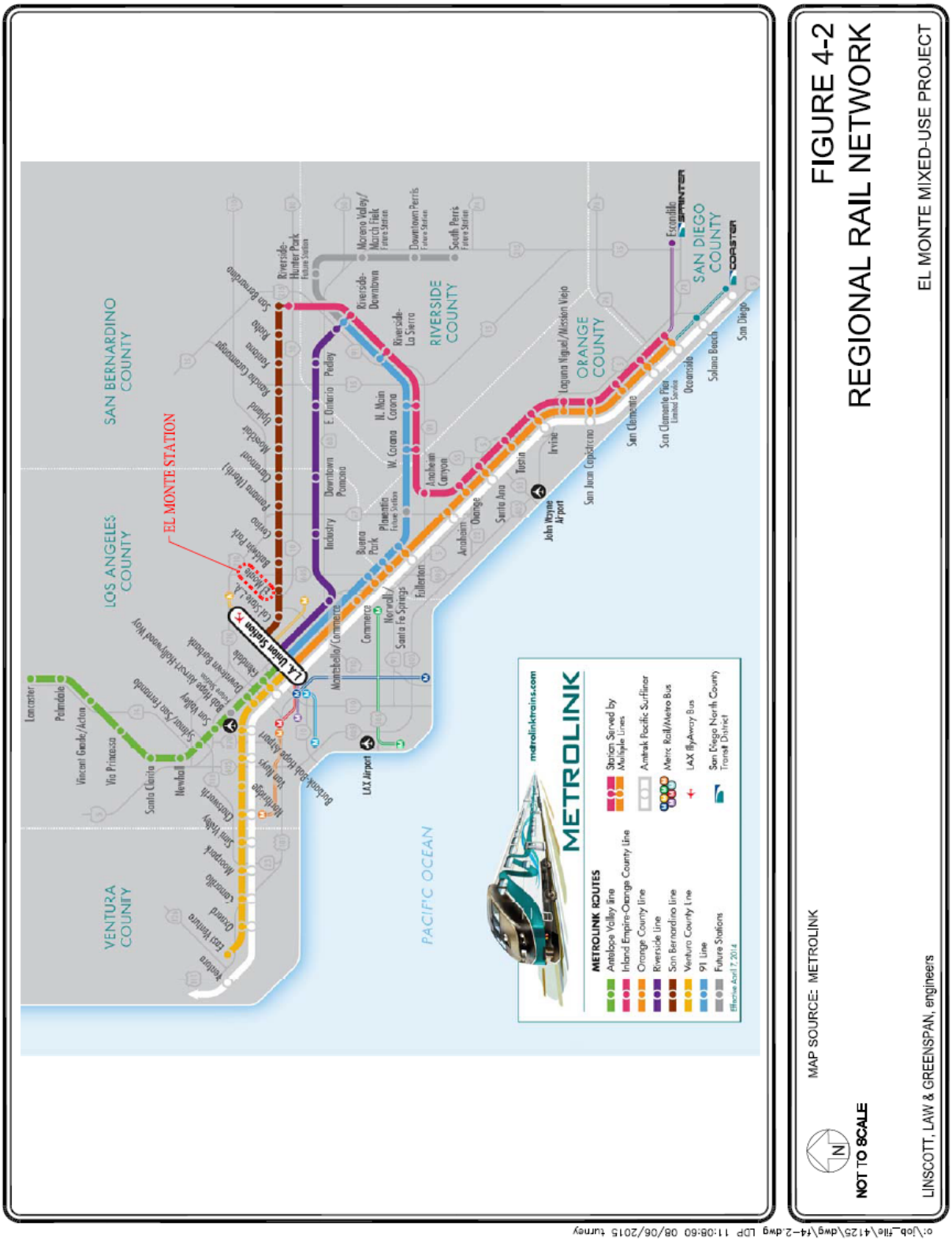
Metro currently operates four light rail lines and two rapid transit subway lines, altogether totaling roughly 87 miles of rail, 80 stations, and approximately 348,200 daily weekday boardings.[3] Metro is

[3] Source: Metro Facts at a Glance (http://www.metro.net/news/facts-glance/); as of August 2015.

Table 4-1
EXISTING ROADWAY DESCRIPTIONS

ROADWAY	CLASSIFICATION [a]	TRAVEL LANES		MEDIAN TYPE [d]	SPEED LIMIT
		Direction [b]	No. Lanes [c]		
Peck Road	Major Arterial	NB-SB	4	RMI	35
La Madera Avenue	Local	NB-SB	2	N/A	25
Baseball Avenue	Local	NB-SB	2	N/A	25
Mountain View Road	Collector	NB-SB	4	N/A	25
Cogswell Road	Collector	NB-SB	2	N/A	25
Valley Boulevard	Major Arterial	EB-WB	4	2WLT	35
Asher Street	Local	EB-WB	2	N/A	25
Meeker Avenue	Local	EB-WB	2	N/A	25
Garvey Avenue	Major Arterial	EB-WB	4	2WLT	35

Notes:
[a] Classification based on City of El Monte General Plan, June 2011.
[b] NB = Northbound; SB = Southbound; EB = Eastbound; WB =Westbound; NW= Northwest; and SE = Southeast
[c] Number of lanes in both directions on the roadway
[d] RMI = Raised Median Island; 2WLT = 2-Way Left-Turn Lane; N/A = Not Applicable


EL MONTE STATION
L.A. Union Station
SAN BERNARDINO COUNTY
LOS ANGELES COUNTY
VENTURA COUNTY
RIVERSIDE COUNTY
ORANGE COUNTY
SAN DIEGO COUNTY
PACIFIC OCEAN
LAX Airport
John Wayne Airport
METROLINK
METROLINK ROUTES
Antelope Valley line
Inland Empire-Orange County Line
Orange County line
Riverside Line
San Bernardino line
Ventura County Line
91 Line
Future Stations
Station Served by Multiple Lines
Amtrak Pacific Surfliner
Metro Rail/Metro Bus
LAX FlyAway Bus
San Diego North County Transit District
metrolinktrains.com
FIGURE 4-2
REGIONAL RAIL NETWORK
EL MONTE MIXED-USE PROJECT
MAP SOURCE: METROLINK
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
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currently adding the Crenshaw Line, which is currently under construction, and extending the Expo Line to Santa Monica and the Gold Line to Claremont. SCRRA operates Metrolink which provides rail service for Los Angeles County, Orange County, Riverside County, San Bernardino County and Ventura County. Metrolink presently operates seven lines of service, 55 stations, and approximately 44,000 daily weekday boardings all over a 512 route-mile network.[4] Near the project site, Metrolink provides a rail stop for the San Bernardino route corridor which extends between Union Station in downtown Los Angeles and the City of San Bernardino. This Metrolink stop provides connectivity opportunities for El Monte and the proposed project to the regional network of rail lines operated by Amtrak, Metro and SCRRA.

Metrolink is a regional commuter train system that provides service within Los Angeles, Ventura, Orange, Riverside, and San Bernardino counties. The Metrolink San Bernardino Line provides services between San Bernardino and the Los Angeles Union Station. The El Monte transit station is located at 10925 Railroad Street, north of Valley Boulevard and west of Tyler Avenue, northwest of the project site. The El Monte transit station connects with several bus lines that are operated by the Metro, El Monte Transit, Rosemead Explorer, and Metrolink services.

4.5.2 Public Bus Transit Services

Public bus transit service within the project study area is currently provided by Los Angeles County Metropolitan Transit Authority (Metro), Foothill Transit, and El Monte Transit. A summary of the existing transit service, including the transit route, destinations and peak hour headways is presented in ***Table 4-2***. The existing public transit routes in the project site vicinity are illustrated in ***Figure 4-3***.

Metro operates two bus transit routes along major roadways within the traffic analysis study area, including routes on Garvey Avenue and Valley Boulevard, among many others. Foothill Transit serves the San Gabriel and Pomona Valleys and it provides bus transit service along major roadways within the traffic analysis study area including Valley Boulevard, Garvey Avenue, La Madera Avenue, Meeker Avenue, among others. Foothill Transit operates three transit routes in the immediate vicinity of the project site. With the addition of bus transit routes operated by El Monte Transit, there are a total of eight routes provided on most major corridors within the traffic analysis study area.

4.5.3 El Monte Transit and Commuter Shuttle[5]

The City of El Monte operates its own in-town transit system including routes that provide service in the project vicinity. El Monte Transit (Trolley) operates ultra-low floor transit buses on five fixed-routes that provide transportation to residents to most major shopping areas, recreation facilities and most schools within the City. Hours of operation are Monday through Friday from 6:00 AM to 7:00 PM and Saturdays from 9:40 AM to 7:00 PM. All buses leave from the El Monte Bus Station located at 3650 Center Avenue approximately every 40 minutes.

[4] Source: SCCRA (http://www.metrolinktrains.com/about/).
[5] Source: http://www.ci.el-monte.ca.us/Government/PublicWorks/Transportation.aspx

Table 4-2
EXISTING TRANSIT ROUTES [1]

ROUTE	DESTINATIONS	ROADWAY(S) NEAR SITE	NO. OF BUSES/TRAINS DURING PEAK HOUR		
			DIR	AM	PM
Metro 194	El Monte to Cal Poly Pomona via Baldwin Park, Covina, West Covina, La Puente, Walnut, Mount San Antonio College	Valley Boulevard, Garvey Avenue, La Madera Avenue	EB WB	3 5	4 3
Metro 270	Norwalk to Monrovia via Santa Fe Springs, Whittier, Rio Hondo College, El Monte	Peck Road, Garvey Avenue	NB SB	2 3	2 1
F.T. 178	Puente Hills Mall to El Monte Station, Walnut, La Puente, West Covina, Baldwin Park	Valley Boulevard, La Madera Avenue, Garvey Avenue, Cogswell Road	EB WB	2 2	2 2
F.T. 282	El Monte to Puente Hills Mall via Industry, La Puente	Valley Boulevard, La Madera Avenue, Garvey Avenue	EB WB	2 2	2 2
F.T. 486	Pomona to El Monte via Walnut, La Puente, Baldwin Park	Peck Road, Garvey Avenue, Meeker Avenue, Mountain View Road, Valley Boulevard	EB WB	5 5	5 5
Trolley Green Route Circular	El Monte Trolley Station via Valley Boulevard, Elliott Avenue, Merced Avenue, Tyler Avene, Ramona Boulevard	Valley Boulevard, Mountain View Road, Garvey Avenue	NB SB	0 2	0 2
Trolley Yellow Route Circular	El Monte Trolley Station via Tyler Avenue, Elliott Avenue, Peck Road, Parkway, Mountain View Road, Valley Boulevard	Valley Boulevard, Mountain View Road, Garvey Avenue	NB SB	0 2	0 2
Trolley Orange Route Circular	El Monte Trolley Station via Valley Boulevard, Ferris Road, Durfee Avenue, Parkway Drive, Peck Road, Garvey Avene, Tyler Avenue	Peck Road, Garvey Avenue	EB WB	2 0	2 0
			Total	37	34

[1] Sources: Los Angeles County Metropolitan Transportation Authority (Metro), Foothill Transit (F.T.), City of El Monte (Trolley) websites, 2015.

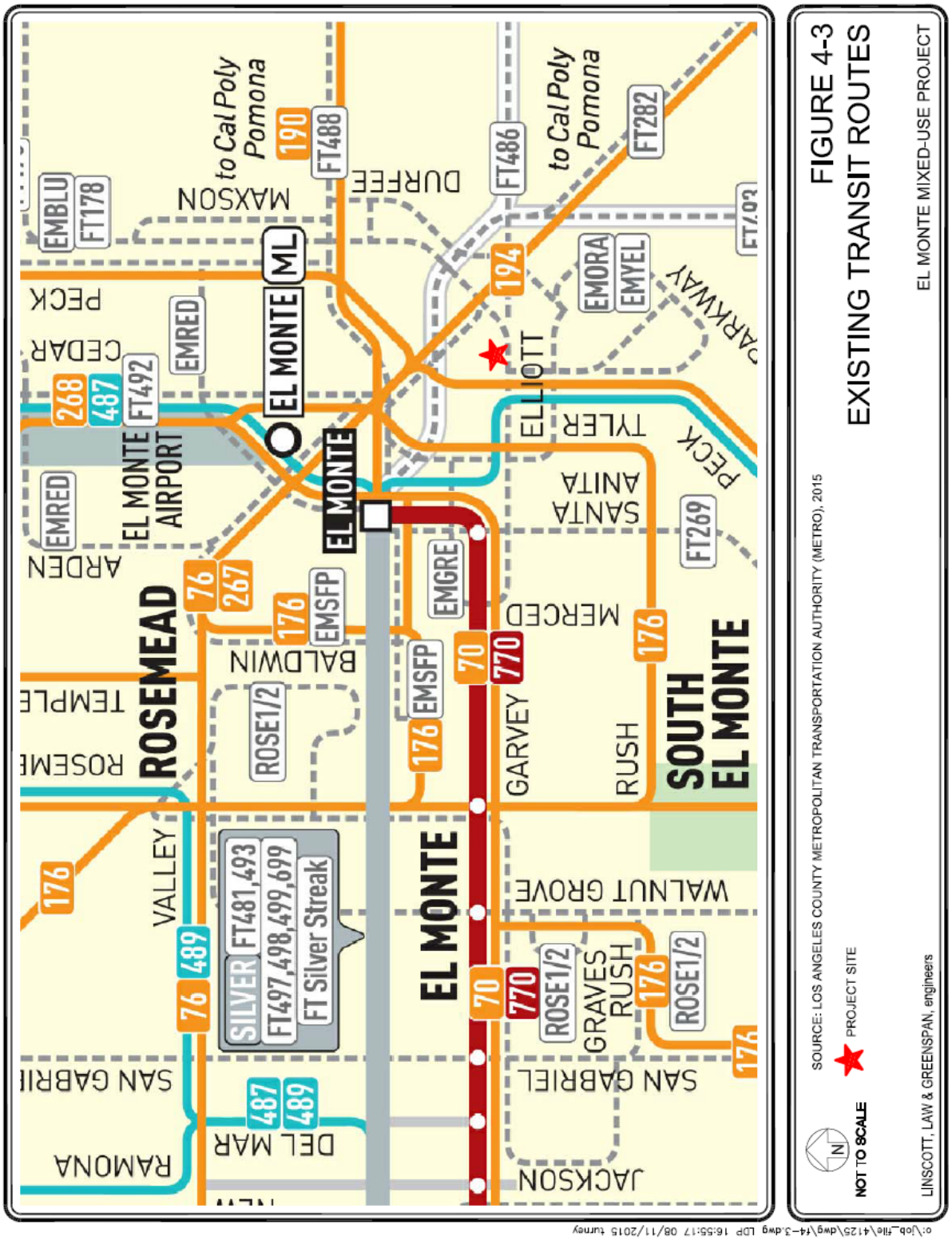
FIGURE 4-3
EXISTING TRANSIT ROUTES
EL MONTE MIXED-USE PROJECT
SOURCE: LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (METRO), 2015
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
EL MONTE
ROSEMEAD
SOUTH EL MONTE
VALLEY
GARVEY
RUSH
WALNUT GROVE
GRAVES
JACKSON
SAN GABRIEL
RAMONA
DEL MAR
BALDWIN
MERCED
SANTA ANITA
ELLIOTT
TYLER
PECK
PARKWAY
DURFEE
MAXSON
ARDEN
CEDAR
TEMPLE
to Cal Poly Pomona
EL MONTE AIRPORT
SILVER
FT Silver Streak
FT481,493
FT497,498,499,699
ROSE1/2
EMSFP
EMGRE
EMRED
EMBLU
EMORA
EMYEL
FT178
FT488
FT486
FT282
FT492
FT269
190
194
268
487
489
76
267
176
70
770

4.6 Designated Transit Corridors

In the project vicinity, both Garvey Avenue and Valley Boulevard are designated transit streets in the City of El Monte "Vision El Monte" General Plan 2011. Peck Road and Cogswell Road are both designated as Secondary Transit Streets. Pursuant to the City of El Monte General Plan, the following definition is noted for "Transit Corridors":

Transit corridors refer to streets that are designated for transit (bus) use. Primary transit corridors are expected to carry the highest levels of transit service, particularly regional bus service, with the highest number of bus routes and the highest frequency of service. As an alternative, a secondary transit street is expected to carry lower but still significant levels of transit service, probably with a greater orientation to local rather than regional bus routes.

4.7 Designated Truck Routes

In the immediate project vicinity, Garvey Avenue, Peck Road, and Valley Boulevard all are designated Truck routes in the City of El Monte "Vision El Monte" General Plan 2011. Pursuant to the City of El Monte General Plan, the following definition is noted for Truck Routes:

Truck routes are the primary routes for truck traffic. Truck routes are focused onto Principal travel corridors that support commercial and industrial activities. Controlling and limiting trucks help prevent them from intruding into neighborhoods and traveling on streets not designed to accommodate them, reduce diesel and particulate emissions near sensitive land uses, control noise and vibration, and improve quality of life in the community.

5.0 TRAFFIC COUNTS

Manual counts of vehicular turning movements were conducted at each of the seven (7) study intersections during the weekday morning (AM) and afternoon (PM) commute periods to determine the peak hour traffic volumes. The manual counts were conducted by an independent traffic count subconsultant at the study intersections from 7:00 to 9:00 AM to determine the weekday AM peak commute hour and from 4:00 to 6:00 PM to determine the weekday PM peak commute hour. It is noted that all of the traffic counts were conducted when local schools were in regular session. Traffic volumes at the study intersections show the morning and afternoon peak periods typically associated with peak commute hours in the metropolitan area.

The weekday AM and PM peak hours manual counts of vehicle movements at the study intersections are summarized in ***Table 5-1***. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are shown in ***Figures 5-1*** and ***5-2***, respectively. Summary data worksheets of the manual traffic counts at the study intersections are contained in ***Appendix A***.

Table 5-1
EXISTING TRAFFIC VOLUMES [1]
WEEKDAY AM AND PM PEAK HOURS

NO.	INTERSECTION	DATE	DIR	AM PEAK HOUR		PM PEAK HOUR	
				BEGAN	VOLUME	BEGAN	VOLUME
1	Peck Road/ Asher Street	05/13/2015	NB	7:30	607	4:45	848
			SB		972		806
			EB		73		190
			WB		40		20
2	Peck Road/ Garvey Avenue	05/13/2015	NB	7:15	662	5:00	782
			SB		997		1,152
			EB		654		1,154
			WB		817		567
3	Meeker Avenue/ Garvey Avenue	05/13/2015	NB	7:15	186	5:00	129
			SB		107		276
			EB		494		889
			WB		826		608
4	La Madera Avenue/ Valley Boulevard	05/13/2015	NB	7:15	58	5:00	43
			SB		0		0
			EB		731		1,119
			WB		1,250		1,056
5	La Madera Avenue/ Garvey Avenue	05/13/2015	NB	7:15	0	5:00	0
			SB		24		37
			EB		530		964
			WB		836		607
6	Mountain View Road/ Garvey Avenue	05/13/2015	NB	7:15	353	5:00	480
			SB		326		273
			EB		504		937
			WB		776		590
7	Valley Boulevard Garvey Avenue	05/13/2015	NB	7:15	1,186	5:00	980
			SB		679		971
			EB		500		909
			WB		820		514

[1] Counts conducted by City Traffic Counters

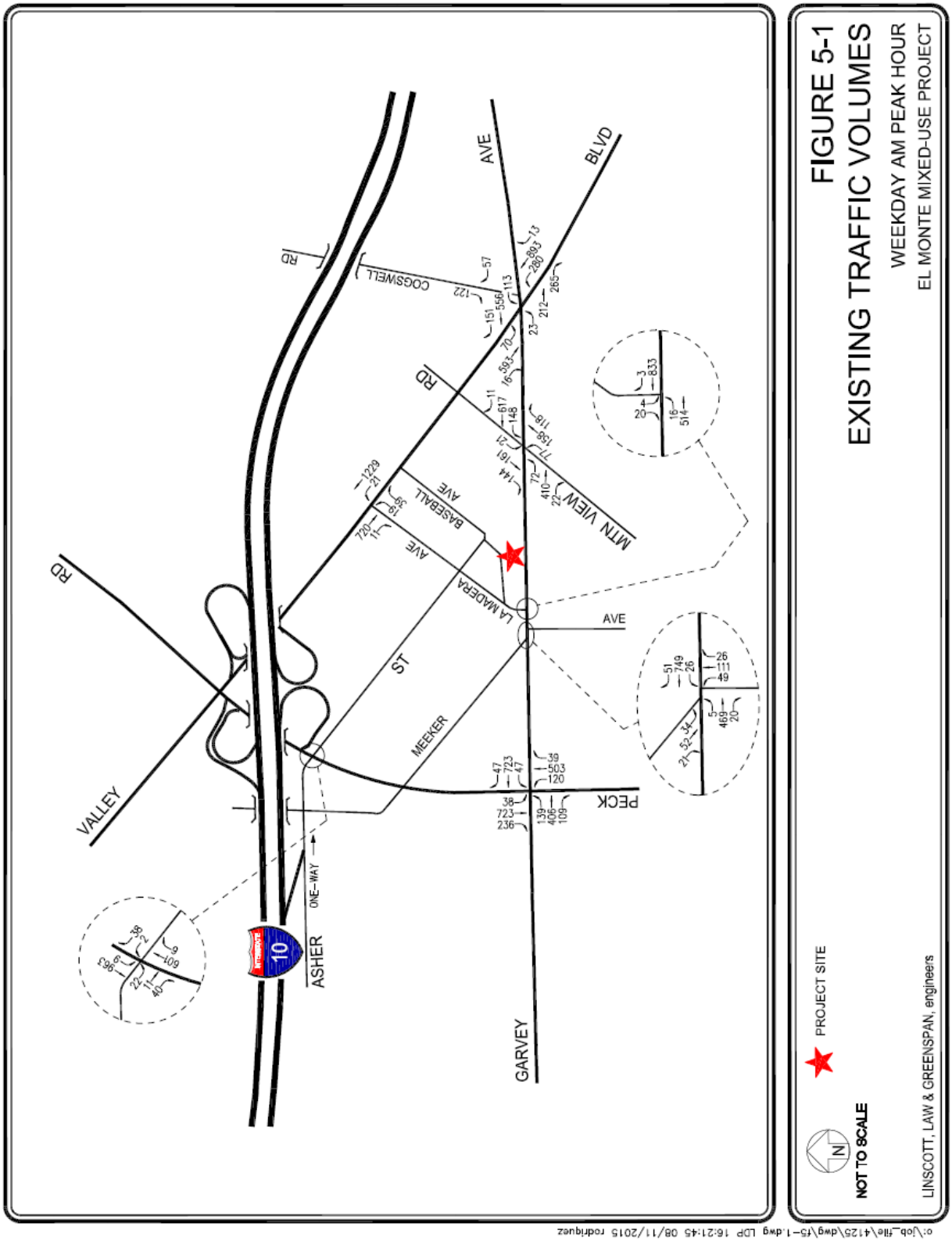
FIGURE 5-1
EXISTING TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
o:\job_file\4125\dwg\f5-1.dwg LDP 16:21:45 08/11/2015 rodriguez
GARVEY
PECK
MEERKER
ST
VALLEY
RD
ASHER
ONE-WAY
10
LA MADERA
AVE
BASEBALL
MTN VIEW
COGSWELL
BLVD

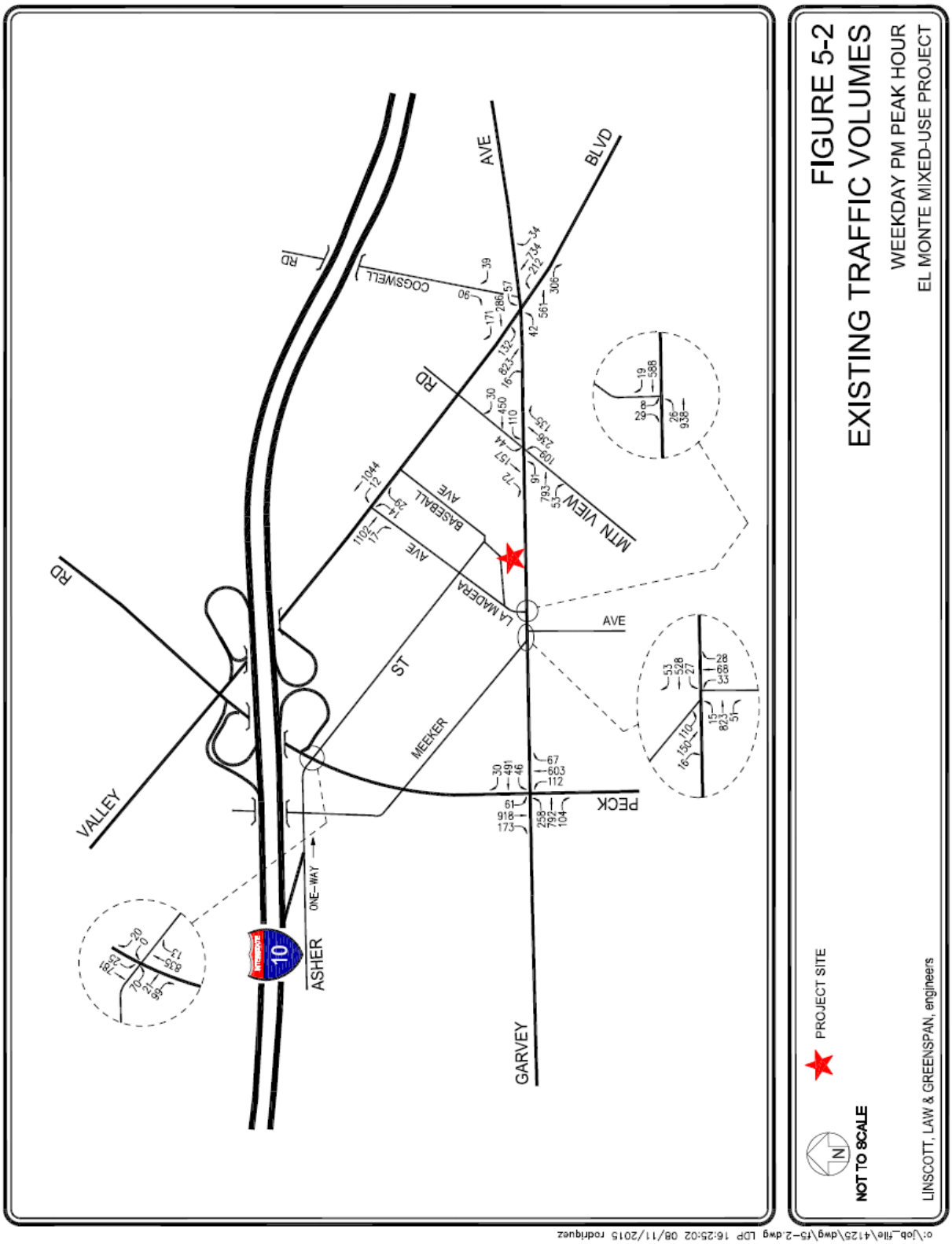
FIGURE 5-2
EXISTING TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
GARVEY AVE
PECK RD
MEEKER AVE
VALLEY ST
ASHER AVE
ONE-WAY
LA MADERA AVE
BASEBALL AVE
MTN VIEW RD
COGSWELL RD
10

6.0 CUMULATIVE DEVELOPMENT PROJECTS

The forecast of future pre-project conditions was prepared in accordance to procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provide two options for developing the future traffic volume forecast:

> "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
>
> (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency."

Accordingly, the traffic analysis provides a highly conservative estimate of future pre-project traffic volumes as it incorporates both the "A" and "B" options outlined in the CEQA Guidelines for purposes of developing the forecast.

6.1 Related Projects

A forecast of on-street traffic conditions prior to occupancy of the proposed project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area. With this information, the potential impact of the proposed project can be evaluated within the context of the cumulative impact of all ongoing development. The related projects research was based on information on file at the City of El Monte Department of Economic Development – Planning Division. The list of related projects in the project vicinity is presented in ***Table 6-1***. The location of the related projects is shown in ***Figure 6-1***.

Traffic volumes expected to be generated by the related projects were calculated using rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*[6]. The related projects' respective traffic generation for the weekday AM and PM peak hours, as well as on a daily basis for a typical weekday, is summarized in *Table 6-1*. The distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours are displayed in ***Figures 6-2*** and ***6-3***, respectively.

[6] Institute of Transportation Engineers *Trip Generation Manual*, 9th Edition, Washington, D.C., 2012.

Table 6-1
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP NO.	PROJECT STATUS	PROJECT NAME/NUMBER ADDRESS/LOCATION	LAND USE DATA: LAND-USE	LAND USE DATA: SIZE	PROJECT DATA SOURCE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]: IN	AM: OUT	AM: TOTAL	PM PEAK HOUR VOLUMES [2]: IN	PM: OUT	PM: TOTAL
1	Proposed	11605 Garvey Avenue	Senior Condominium	30 DU	[3]	103	2	4	6	4	4	8
			Retail	25,147 GLSF	[4]	1,074	15	9	24	45	48	93
2	Proposed	12228 Chosen Street	Manufacturing	31,409 GSF	[5]	120	18	5	23	8	15	23
3	Proposed	3708 Cypress Avenue	Single-Family Residential	12 DU	[6]	114	2	7	9	8	4	12
4	Approved	12417-12467 Denholm Drive	Single-Family Residential	62 DU	[6]	590	12	35	47	39	23	62
5	Proposed	2728 Durfee Avenue	Office	1,625 GSF	[7]	18	3	0	3	0	2	2
6	Approved	11022-11048 Garvey Avenue	Condominium	67 DU	[8]	389	5	24	29	23	12	35
			Live/Work	3 DU	[8]	17	0	1	1	1	1	2
			Retail	2,150 GLSF	[4]	92	1	1	2	4	4	8
7	Approved	11301-11401 Garvey Avenue	Residential	114 DU	[9]	758	12	46	58	46	25	71
			Retail	5,400 GLSF	[4]	231	3	2	5	10	10	20
8	Under Construction	Gateway TOD 3527 Santa Anita Avenue	Residential	485 DU	[9]	3,225	49	198	247	196	105	301
			Retail	25,000 GLSF	[4]	1,068	15	9	24	45	48	93
9	Proposed	11830-11842 Lambert Avenue	Single-Family Residential	6 DU	[6]	57	1	4	5	4	2	6
10	Approved	Santa Fe Trail Project NEC Valley Boulevard/Santa Anita Avenue	Retail	115,000 GLSF	[4]	4,911	68	42	110	205	222	427
11	Proposed	3454 Tyler Avenue	Residential	32 DU	[9]	213	3	13	16	13	7	20
12	Approved	10525 Valley Boulevard	Warehouse Addition	10,000 GSF	[10]	36	2	1	3	1	2	3
13	Proposed	Norm's Restaurant 10606 Valley Boulevard	Restaurant	7,600 GSF	[11]	966	45	37	82	45	30	75
14	Proposed	12300 Valley Boulevard	Hotel	50 Rooms	[12]	409	16	11	27	15	15	30
			Retail	6,000 GLSF	[4]	256	4	2	6	11	11	22
15	Proposed	11640-11770 Valley Boulevard	Residential	76 DU	[9]	505	8	31	39	31	16	47
			Commercial	30,000 GLSF	[4]	1,281	18	11	29	53	58	111
16	Approved	2231 Parkway Drive	Single-Family Residential	9 DU	[6]	86	2	5	7	6	3	9
17	Proposed	11127 Ramona Boulevard	Condominium	58 DU	[8]	337	4	22	26	20	10	30
			Live/Work	4 DU	[8]	23	0	2	2	1	1	2

LINSCOTT, LAW & GREENSPAN, *engineers*

LLG Ref. 1-15-4125-1
El Monte Mixed-Use Project

Table 6-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP NO.	PROJECT STATUS	PROJECT NAME/NUMBER ADDRESS/LOCATION	LAND USE DATA		PROJECT DATA SOURCE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			LAND-USE	SIZE			IN	OUT	TOTAL	IN	OUT	TOTAL
18	Proposed	11174 Garvey Avenue	Residential Commercial	24 DU 3,500 GLSF	[9] [4]	160 149	2 2	10 1	12 3	10 6	5 7	15 13
19	Approved	Flair Spectrum - Phase I 9600 Flair Drive	Hotel Factory Outlet Center Quality Restaurant	250 Rooms 640,000 GSF 50,000 GSF	[13]	18,354	339	162	501	579	571	1,150
20	Proposed	4000 Arden Drive	Free-standing Discount Superstore	182,429 GSF	[14]	7,595	155	122	277	280	292	572
21	Proposed	4422-4436 Bannister Street	Single-Family Residential	23 DU	[6]	219	4	13	17	14	9	23
22	Proposed	10620 Hickson Street	Industrial	65,000 GSF	[15]	454	53	7	60	8	55	63
23	Approved	4610 Peck Road	Residential	23 DU	[9]	153	2	10	12	9	5	14
24	Proposed	4707-4716 Peck Road	Affordable Housing	49 DU	[9]	326	5	20	25	20	10	30
TOTAL						44,289	870	867	1,737	1,760	1,632	3,392

[1] Source: City of El Monte Economic Development Department, Planning Division, 2015. Trip generation for the related projects are based on ITE "Trip Generation Manual", 9th Edition, 2012 (as referenced in the Project Data Source column), except as noted.
[2] Trips are one-way traffic movements, entering or leaving.
[3] ITE Land Use Code 252 (Senior Adult Housing-Attached) trip generation average rates.
[4] ITE Land Use Code 820 (Shopping Center) trip generation average rates.
[5] ITE Land Use Code 140 (Manufacturing) trip generation average rates.
[6] ITE Land Use Code 210 (Single-Family Detached Housing) trip generation average rates.
[7] ITE Land Use Code 710 (General Office Building) trip generation average rates.
[8] ITE Land Use Code 230 (Residential Condominium/Townhouse) trip generation average rates.
[9] ITE Land Use Code 220 (Apartment) trip generation average rates.
[10] ITE Land Use Code 150 (Warehousing) trip generation average rates.
[11] ITE Land Use Code 932 (High-Turnover [Sit-Down] Restaurant) trip generation average rates.
[12] ITE Land Use Code 310 (Hotel) trip generation average rates.
[13] Source: "Flair Spectrum Specific Plan Traffic Impact Study", prepared by LLG Engineers, October 22, 2014.
[14] Source: "Traffic Impact Analysis for the Wal-Mart on Arden Drive", prepared by Mountain Pacific, Inc., April 2014.
[15] ITE Land Use Code 110 (General Light Industrial) trip generation average rates.


FIGURE 6-1
LOCATION OF RELATED PROJECTS
EL MONTE MIXED-USE PROJECT
MAP SOURCE: RAND MCNALLY & COMPANY
PROJECT SITE
RELATED PROJECT
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
605
10
SAN GABRIEL RIVER
RUSH ST
SANTA ANITA
GARVEY AV
E GARVEY AV
MERCED AV
VALLEY BLVD
RAMONA BLVD
BRYANT RD
COGSWELL RD
MOUNTAIN VIEW RD
DURFEE AV
ARDEN DR
N VALLEY BL NB
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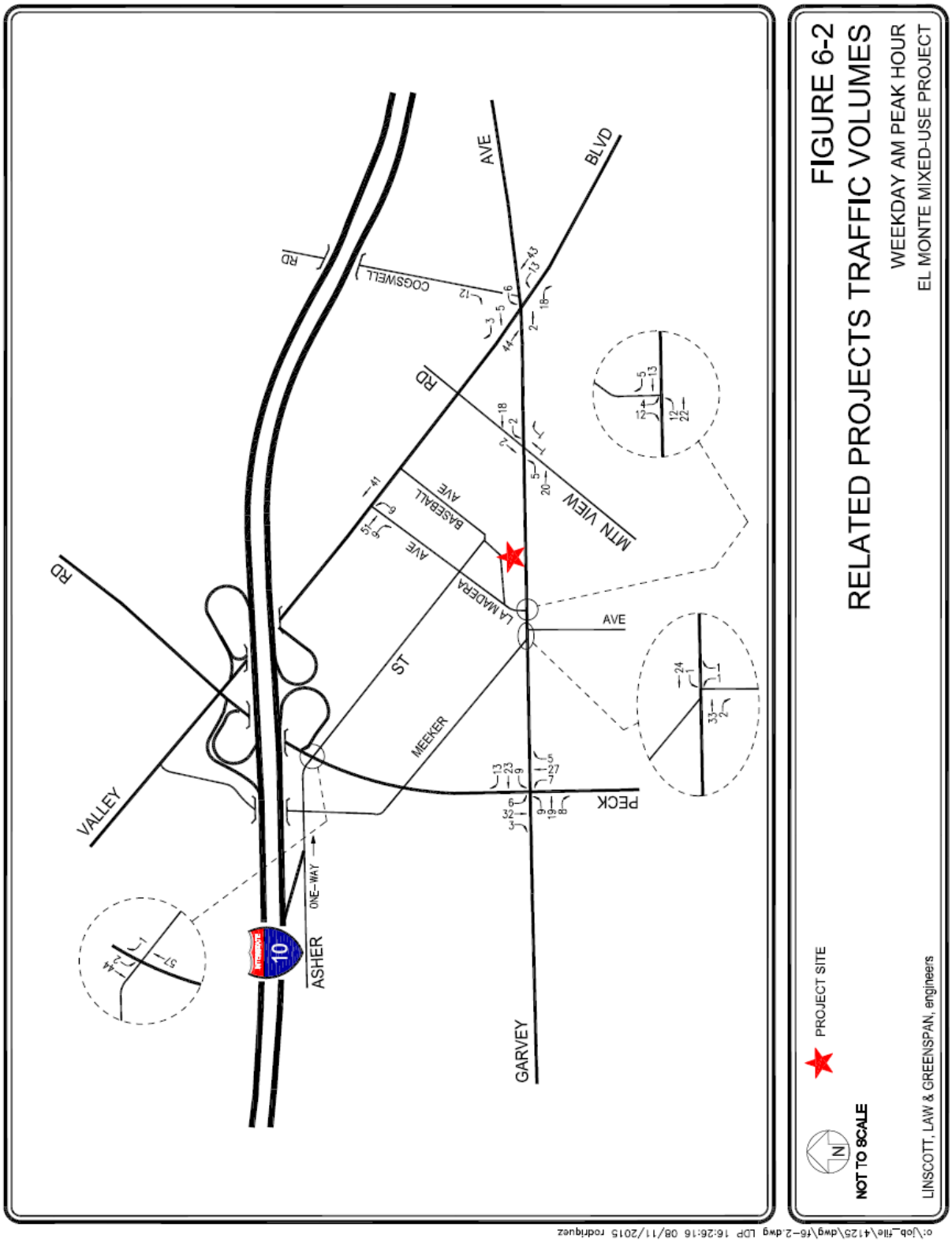
FIGURE 6-2
RELATED PROJECTS TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
GARVEY
ASHER
ONE-WAY
VALLEY
MEEKER
ST
PECK
AVE
LA MADERA
BASEBALL
AVE
MTN VIEW
RD
COGSWELL
RD
AVE
BLVD
10

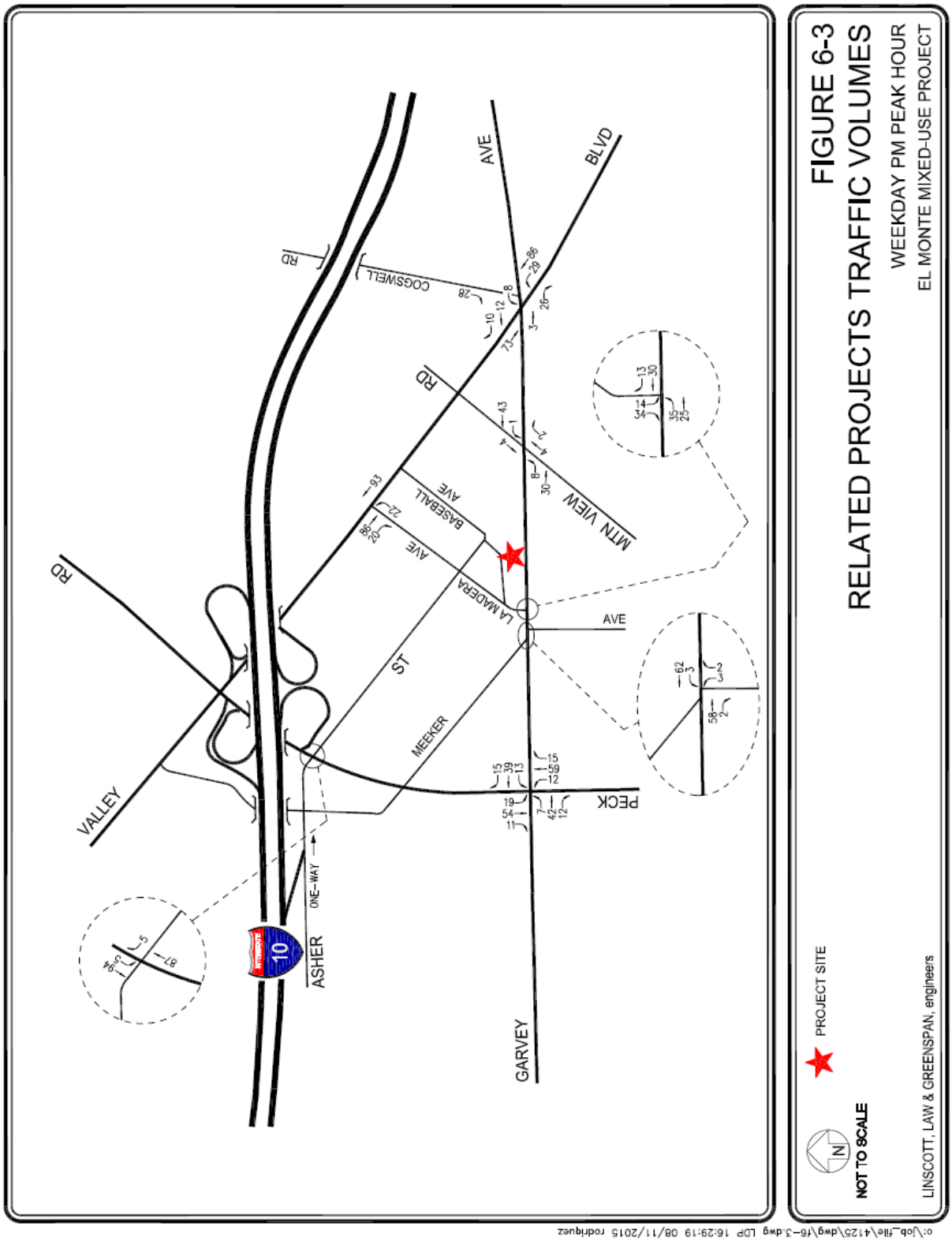
FIGURE 6-3
RELATED PROJECTS TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
GARVEY
PECK
MEEKER
ASHER
ONE-WAY
VALLEY
LA MADERA
BASEBALL
MTN VIEW
COGSWELL
AVE
BLVD
RD
ST
10

6.2 Ambient Traffic Growth Factor

In order to account for area-wide regional growth not included in this analysis, the existing traffic volumes were increased at an annual rate of 1.0 percent (1.0%) to the forecast year 2018 (i.e., the anticipated project build-out year). It is noted that based on review of the general traffic growth factors provided in the CMP manual for the project study area (i.e., RSA 25, Pasadena), it is anticipated that the existing traffic volumes are expected to increase at an annual rate of 0.82% per year between the years 2010 and 2020. For the forecast year 2018 (i.e., assuming project build-out), the existing traffic volumes were increased at an annual rate of 1.0 percent (1.0%). The ambient growth factor was based on general traffic growth factors provided in the *2010 Congestion Management Program for Los Angeles County* (the "CMP manual") and determined in consultation with City staff. Thus, application of this annual growth factor allows for a conservative, worst case forecast of future traffic volumes in the area. Further, it is noted that the CMP manual's traffic growth rate is intended to anticipate future traffic generated by development projects in the project vicinity. Thus, the inclusion in this traffic analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor based on CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

7.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the project, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound project traffic volumes. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the proposed project is isolated by comparing operational (i.e., Levels of Service) conditions at the selected key intersections using existing and expected future traffic volumes without and with forecast project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the project's impacts identified.

7.1 Project Traffic Generation

Traffic volumes expected to be generated by the proposed project during the weekday AM and PM peak hours as well as on a daily basis, were estimated using rates published in the ITE *Trip Generation Manual*, 9th Edition publication. Traffic volumes expected to be generated by the assisted living/memory loss and senior apartment components of the proposed project were based upon rates per number of occupied beds and number of dwelling units, respectively. Traffic volumes expected to be generated by the commercial components of the proposed project (i.e., restaurants, retail, etc.) were based upon rates per 1,000 square feet of floor area. Trip generation average rates for the following uses were used to forecast the traffic volumes expected to be generated by the individual components of the proposed project:

- ITE Land Use Code 252: Senior Adult Housing - Attached
- ITE Land Use Code 254: Assisted Living
- ITE Land Use Code 820: Shopping Center
- ITE Land Use Code 932: High-Turnover [Sit-Down] Restaurant
- ITE Land Use Code 936: Coffee/Donut Shop without Drive-Through Window
- ITE Land Use Code 939: Bread/Donut/Bagel Shop without Drive-Through Window

In addition to the above project trip generation forecasts, a forecast was made of likely pass-by trips that could be anticipated at the site for the proposed uses. Pass-by trips are intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site. The pass-by traffic forecast has been estimated and reviewed by City staff for use pursuant to the recommended practice in Appendix F of the ITE *Trip Generation Handbook*[7]. Pass-by adjustments have been applied to the weekday AM and PM peak hour traffic volume forecasts, as well as to the daily traffic volume forecasts, for the commercial components only.

As discussed previously, the resale automobile dealership that still operates on a portion of the project site will be vacated for the proposed development. However, in order to provide a conservative assessment of potential project-related impacts, no existing trip generation credit has been applied in this analysis.

The trip generation forecast for the proposed project is summarized in ***Table 7-1***. The trip generation forecast for the proposed project was submitted for review and approval by City staff. As presented in *Table 7-1*, the proposed project is forecast to generate 253 vehicle trips (131 inbound trips and 122 outbound trips) during the weekday AM peak hour and 181 vehicle trips (97 inbound trips and 84 outbound trips) during the weekday PM peak hour. Over a 24-hour period, the proposed project is forecast to generate 3,002 daily trip ends during a typical weekday (1,501 inbound trips and 1,501 outbound trips).

7.2 Project Traffic Distribution and Assignment

Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- The site's proximity to major traffic corridors (i.e., Valley Boulevard, Garvey Avenue, Peck Road, etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Ingress/egress scheme planned for the proposed project; and
- Nearby population and employment centers.

[7] Institute of Transportation Engineers *Trip Generation Handbook*, 3rd Edition, Washington, D.C., August 2014.

Table 7-1
PROJECT TRIP GENERATION [1]

	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2] IN	AM PEAK HOUR VOLUMES [2] OUT	AM PEAK HOUR VOLUMES [2] TOTAL	PM PEAK HOUR VOLUMES [2] IN	PM PEAK HOUR VOLUMES [2] OUT	PM PEAK HOUR VOLUMES [2] TOTAL
Proposed Uses:								
Assisted Living/Memory Loss [3]	118 Occ. Beds	324	14	7	21	17	17	34
Senior Apartment [4]	28 DU	96	2	4	6	4	3	7
Retail [5]	7,828 GLSF	334	5	3	8	14	15	29
Less Pass-by Trips (34%) [6], [7]		(114)	(2)	(2)	(4)	(4)	(6)	(10)
Subtotal		220	3	1	4	10	9	19
High-Turnover (Sit-Down) Restaurant [8]	8,740 GSF	1,112	52	42	94	52	34	86
Less Pass-by Trips (25%) [6], [9]		(278)	(14)	(10)	(24)	(14)	(8)	(22)
Subtotal		834	38	32	70	38	26	64
Bread/Donut/Bagel Shop without Drive-Through [10]	1,500 GSF	1,050	49	56	105	21	21	42
Less Pass-by Trips (43%) [6], [11]		(452)	(22)	(24)	(46)	(10)	(10)	(20)
Subtotal		598	27	32	59	11	11	22
Coffee/Donut Shop without Drive-Through [12]	1,500 GSF	1,630	83	80	163	31	30	61
Less Pass-by Trips (43%) [6], [13]		(700)	(36)	(34)	(70)	(14)	(12)	(26)
Subtotal		930	47	46	93	17	18	35
Project Total		3,002	131	122	253	97	84	181

[1] Source: ITE "Trip Generation Manual", 9th Edition, 2012.
[2] Trips are one-way traffic movements, entering or leaving.
[3] ITE Land Use Code 254 (Assisted Living) trip generation average rates.
- Daily Trip Rate: 2.74 trips/occupied beds; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.18 trips/occupied beds; 68% inbound/32% outbound
- PM Peak Hour Trip Rate: 0.29 trips/occupied beds; 50% inbound/50% outbound
[4] ITE Land Use Code 252 (Senior Adult Housing-Attached) trip generation average rates.
- Daily Trip Rate: 3.44 trips/dwelling unit; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.20 trips/dwelling unit; 34% inbound/66% outbound
- PM Peak Hour Trip Rate: 0.25 trips/dwelling unit; 54% inbound/46% outbound
[5] ITE Land Use Code 820 (Shopping Center) trip generation average rates.
- Daily Trip Rate: 42.7 trips/1,000 SF of leasable floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.96 trips/1,000 SF of leasable floor area; 62% inbound/38% outbound
- PM Peak Hour Trip Rate: 3.71 trips/1,000 SF of leasable floor area; 48% inbound/52% outbound
[6] Pass-by trip reduction adjustment factors were derived based on a review of data provided in Appendix F of the ITE "Trip Generation Handbook", 3rd Edition, August 2014, ITE and in consultation with City staff. Pass-by trips are made as intermediate stops on the way from an origin to a primary destination without a route diversion. Pass-by trips are attracted from the traffic passing the site on an adjacent street or roadway that offers direct access to the site.
[7] A pass-by trip adjustment factor of 34% was applied to the retail land use component for the weekday daily, AM peak hour and PM peak hour trip generation.
[8] ITE Land Use Code 932 (High-Turnover [Sit-Down] Restaurant) trip generation average rates.
- Daily Trip Rate: 127.15 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 10.81 trips/1,000 SF of floor area; 55% inbound/45% outbound
- PM Peak Hour Trip Rate: 9.85 trips/1,000 SF of floor area; 60% inbound/40% outbound
[9] A pass-by trip adjustment factor of 25% was applied to the high-turnover [sit-down] restaurant land use component for the weekday daily, AM peak hour and PM peak hour trip generation.
[10] ITE Land Use Code 939 (Bread/Donut/Bagel Shop without Drive-Through Window) trip generation average rates.
- Daily Trip Rate: Not Provided. Assume AM peak hour trips represent 10% of the daily traffic volumes; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 70.22 trips/1,000 SF of floor area; 47% inbound/53% outbound
- PM Peak Hour Trip Rate: 28.00 trips/1,000 SF of floor area; 50% inbound/50% outbound
[11] A pass-by trip adjustment factor of 43% was applied to the bread/donut/bagel shop land use component for the weekday daily, AM peak hour and PM peak hour trip generation.
[12] ITE Land Use Code 936 (Coffee/Donut Shop without Drive-Through Window) trip generation average rates.
- Daily Trip Rate: Not Provided. Assume AM peak hour trips represent 10% of the daily traffic volumes; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 108.38 trips/1,000 SF of floor area; 51% inbound/49% outbound
- PM Peak Hour Trip Rate: 40.75 trips/1,000 SF of floor area; 50% inbound/50% outbound
[13] A pass-by trip adjustment factor of 43% was applied to the coffee/donut shop land use component for the weekday daily, AM peak hour and PM peak hour trip generation.

The project traffic distribution percentages during the weekday AM and PM peak hours at the study intersections are illustrated in ***Figure 7-1***. The forecast weekday AM and PM peak hours project traffic volumes at the study intersections for the proposed project are presented in ***Figures 7-2*** and ***7-3***, respectively.

The traffic volume assignments presented in the project traffic volumes figures (*Figures 7-2* and *7-3*) reflect the traffic distribution characteristics shown in *Figure 7-1* and the proposed project traffic generation forecast presented in *Table 7-1*.

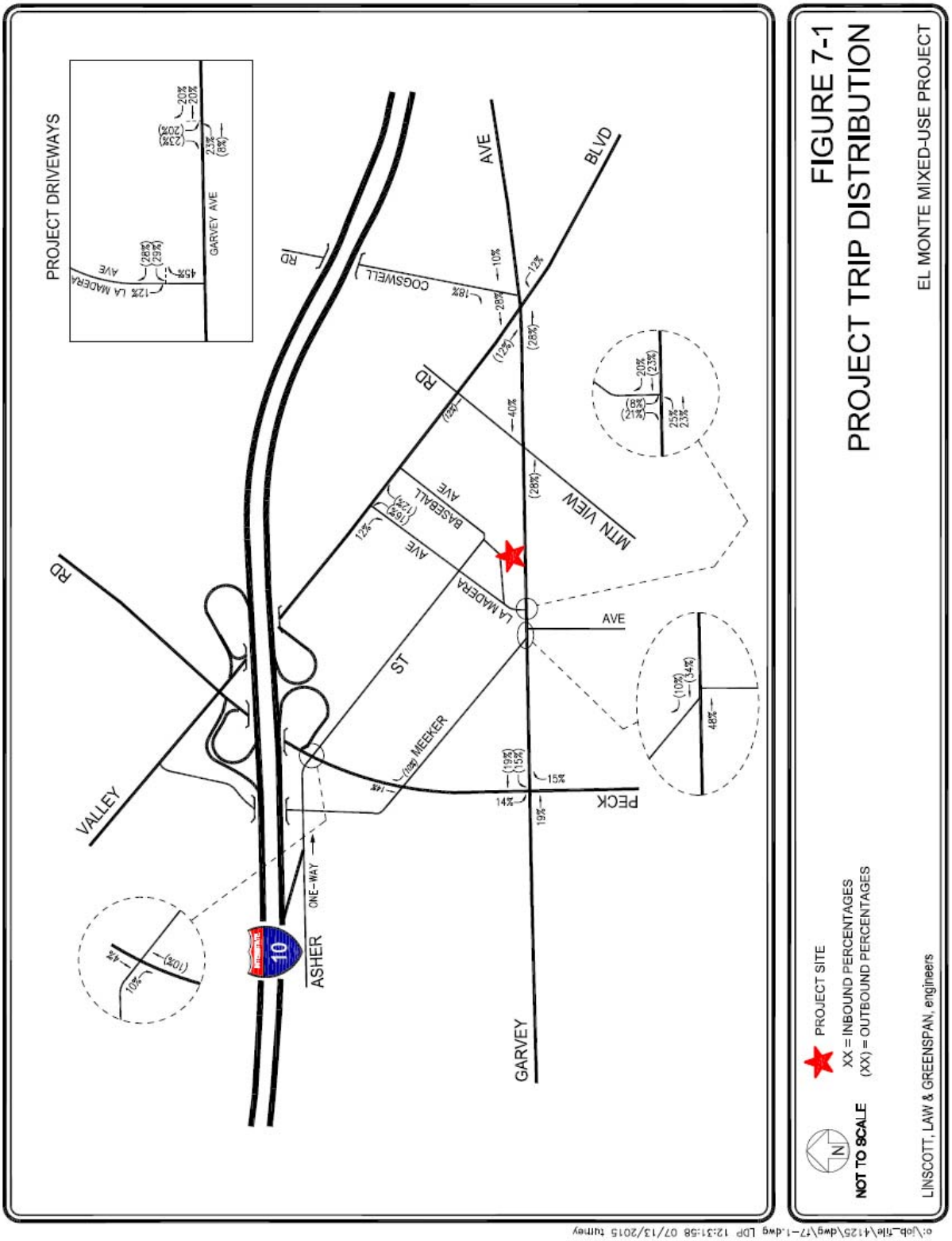
FIGURE 7-1
PROJECT TRIP DISTRIBUTION
EL MONTE MIXED-USE PROJECT
PROJECT SITE
XX = INBOUND PERCENTAGES
(XX) = OUTBOUND PERCENTAGES
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
PROJECT DRIVEWAYS
GARVEY AVE
LA MADERA AVE
VALLEY RD
ASHER ST
ONE-WAY
MEEKER AVE
BASEBALL AVE
MTN VIEW RD
COGSWELL RD
PECK RD
GARVEY AVE
LA MADERA AVE
BLVD
10

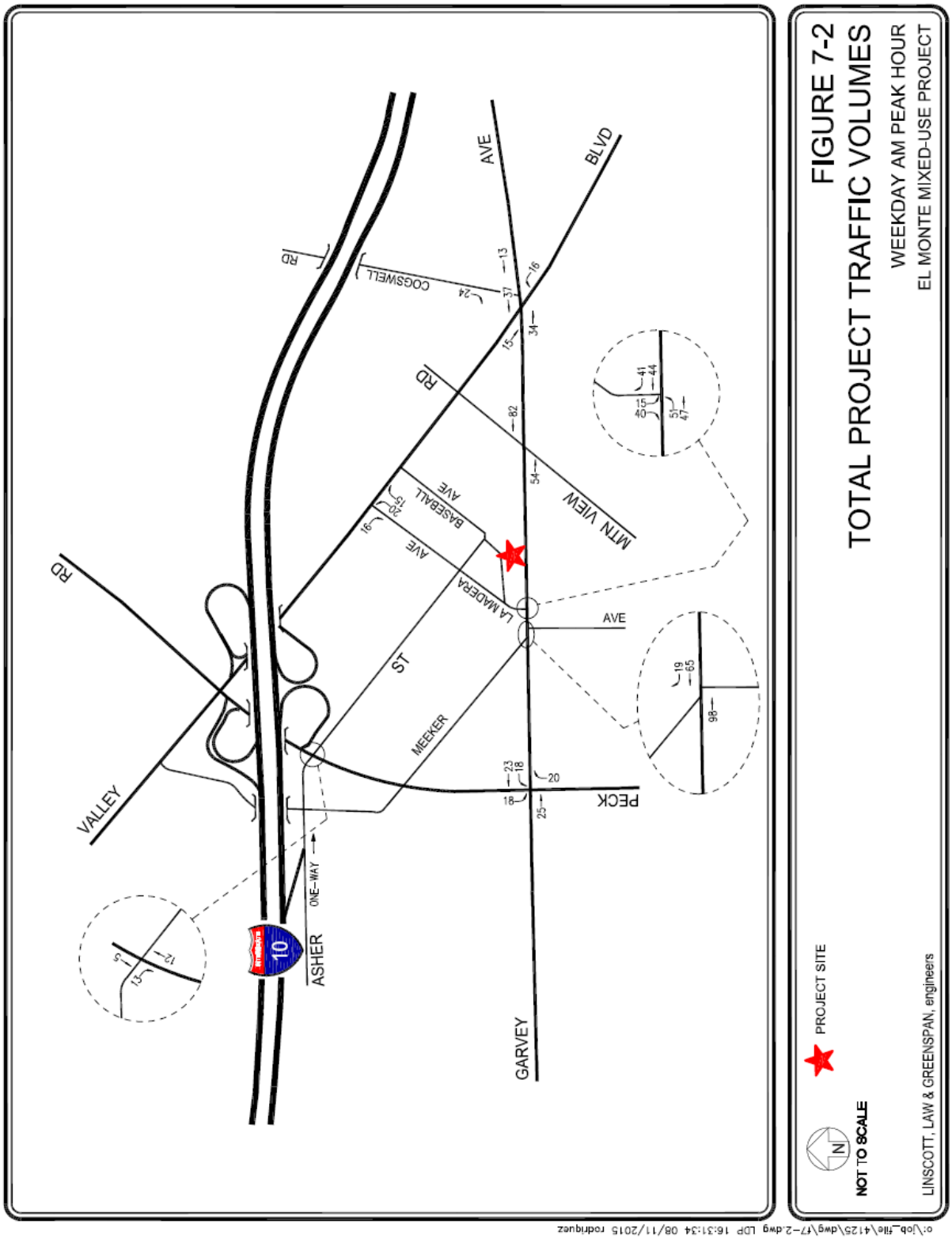
FIGURE 7-2
TOTAL PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
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GARVEY
PECK
MEEKER
ASHER
ONE-WAY
VALLEY
MTN VIEW
LA MADERA
BASEBALL AVE
COGSWELL
10

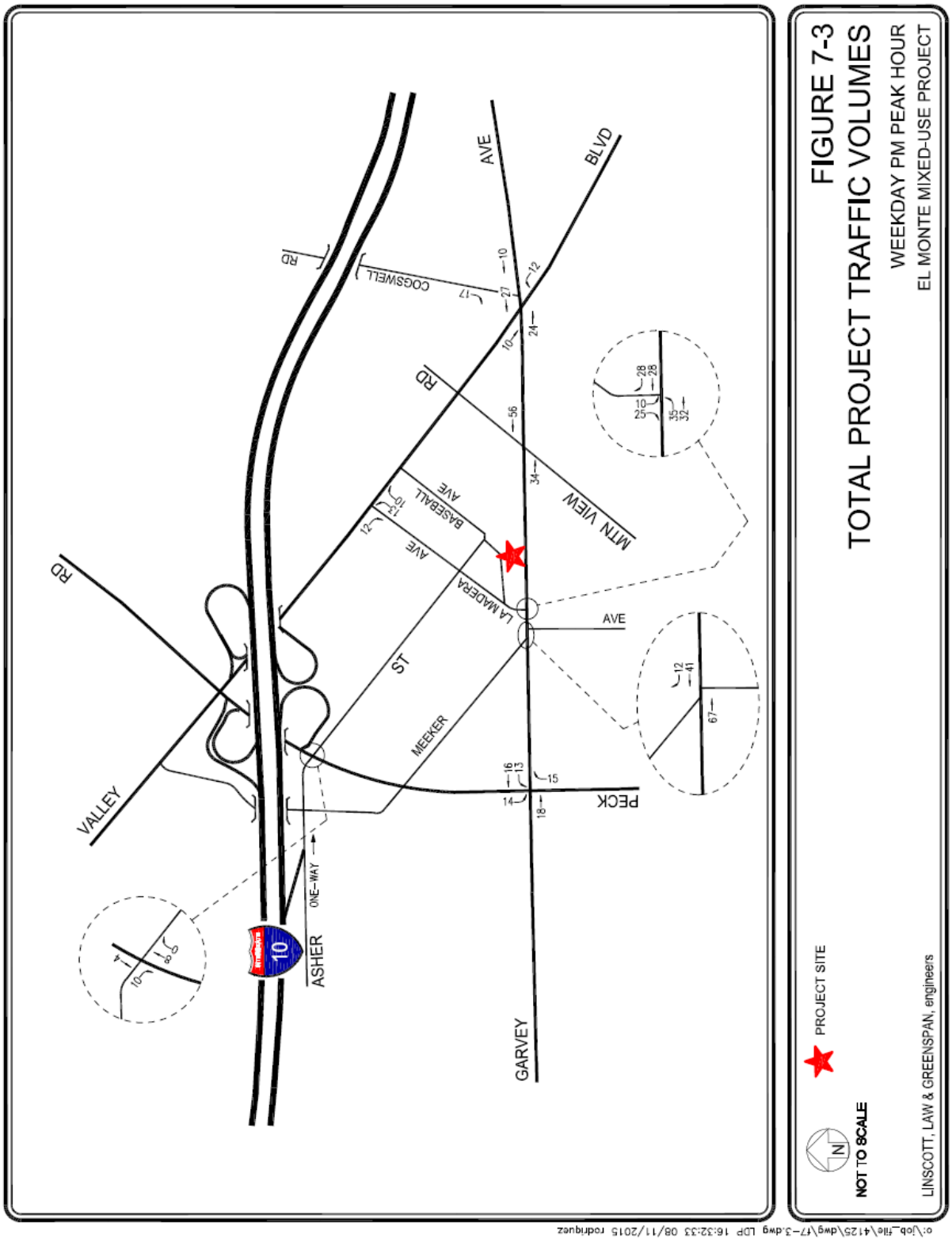
FIGURE 7-3
TOTAL PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
RD
VALLEY
ASHER
ONE-WAY
10
MEEKER
ST
LA MADERA
AVE
BASEBALL
AVE
MTN VIEW
RD
COGSWELL
RD
AVE
BLVD
PECK
AVE
GARVEY
o:\job_file\4125\dwg\f7-3.dwg LDP 16:32:33 08/11/2015 rodriguez

8.0 TRAFFIC IMPACT ANALYSIS METHODOLOGY

The relative impact of the added project traffic volumes generated by the proposed project during the weekday AM and PM peak hours was evaluated based on analysis of existing and future operating conditions at the study intersections, without and with the proposed project. In conformance with the City of El Monte and Los Angeles County Congestion Management Program requirements, existing weekday AM and PM peak hour operating conditions for the signalized study intersections were evaluated using the Intersection Capacity Utilization (ICU) method. The ICU methodology is intended for signalized intersection analyses and estimates the volume-to-capacity (*v/c*) relationship for an intersection based on the individual *v/c* ratios for key conflicting traffic movements.

The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing. The overall intersection *v/c* ratio is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition). The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range and are shown in ***Table 8-1***. A description of the ICU method and corresponding Level of Service is provided in ***Appendix B***.

TABLE 8-1
CITY OF EL MONTE
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
A	≤ 0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601 – 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 – 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 – 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 – 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

The *Highway Capacity Manual 2010* (HCM2010) methodology outlined in Chapter 19 for unsignalized/two-way stop-controlled (TWSC) study intersections was utilized for the analysis of the unsignalized intersections. The TWSC methodology estimates the average control delay for each minor-street movement (or shared movement) as well as major-street left-turns and determines the LOS for each constrained movement. It should be noted that LOS is not defined for the overall TWSC intersection because major-street movements with no delays typically result in a weighted average delay that is extremely low. Average control delay for any particular movement is a function of the capacity of the approach and the degree of saturation. The average control delay is measured in seconds per vehicle, and includes delay due to deceleration to a stop at the back of the queue from free-flow speed, move-up time within the queue, stopped delay at the front of the queue, and delay due to acceleration back to free-flow speed. A description of the HCM method and corresponding Level of Service is also provided in *Appendix B*. The six qualitative categories of Level of Service have been defined along with the corresponding HCM2010 control delay value range, as shown in ***Table 8-2***.

TABLE 8-2
CITY OF EL MONTE
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Level of Service (LOS)	Control Delay Value (sec/veh)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

8.1 Impact Criteria and Thresholds

The relative impact of the site-related traffic volumes to be generated by the proposed project during the weekday AM and PM peak hours was evaluated based on analysis of existing and future operating conditions at the study intersections, without and with the proposed project. The previously discussed capacity analysis procedures were utilized to evaluate the future *v/c* relationships and service level characteristics at each study intersection.

The City of El Monte utilizes the following threshold of significance for signalized intersections:

- A significant impact occurs when a proposed project increases traffic demand at a signalized study intersection by two percent or more of capacity (V/C ≥ 0.02), causing or worsening

LOS F (V/C ≥ 1.00) for all intersections on major corridors, truck routes, commercial corridors at, or adjacent to freeway ramps.

- A significant impact occurs when a proposed project increases traffic demand at a signalized study intersection by two percent or more of capacity (V/C ≥ 0.02), causing or worsening LOS E (V/C ≥ 0.90) for all intersections which are not on major corridors, truck routes, commercial corridors at or adjacent to freeway ramps.

The City of El Monte does not have established thresholds of significance for unsignalized intersections. However, based on prior coordination with City of El Monte staff, the following threshold of significance has been employed in the City's General Plan Traffic Impact Study and other traffic studies conducted in the City of El Monte:

- A significant impact occurs when a proposed Project increases traffic delay at an unsignalized intersection by two (2) percent or more of capacity, causing or worsening LOS E (control delay > 35 seconds) for those intersections.

8.2 Traffic Impact Analysis Scenarios

Traffic impacts at the study intersections were analyzed for the following conditions as required by the City of El Monte:

[a] Existing conditions.

[b] Existing with project conditions.

[c] Condition [a] plus 1.0 percent (1.0%) annual ambient traffic growth through year 2018 and with completion and occupancy of the related projects (i.e., future year 2018 without project conditions).

[d] Condition [c] with completion and occupancy of the project (i.e., future year 2018 with project conditions).

[e] Condition [d] with implementation of project mitigation measures, where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

9.0 TRAFFIC ANALYSIS

The traffic impact analysis prepared for the study intersections using the ICU and HCM methodologies with application of the City of El Monte significant traffic impact criteria is summarized in ***Table 9-1***. The ICU and HCM data worksheets for the analyzed intersections are contained in *Appendix B*.

9.1 Existing Conditions

9.1.1 Existing Conditions

As indicated in column [1] of *Table 9-1*, six of the seven study intersections are operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. The remaining study intersection (Intersection No. 1: Peck Road/Asher Street) is operating at LOS E during the weekday PM peak hour under existing conditions as shown in *Table 9-1*. As mentioned previously, the existing traffic volumes at the study intersections during the weekday AM and PM peak hours are provided in *Figures 5-1* and *5-2*, respectively.

9.1.2 Existing With Project Build-out Conditions

As shown in column [2] of *Table 9-1*, application of the City of El Monte's threshold criteria to the "Existing With Project" scenario indicates that the proposed project could be expected to result in a significant traffic impact at one of the seven study intersections during the weekday PM peak hour (i.e., at the La Madera Avenue/Valley Boulevard intersection) as shown below:

- Intersection No. 4: La Madera Avenue/Valley Boulevard
  PM peak hour increase of 10.7 seconds of delay [to 38.1 seconds of delay (LOS E)]

Incremental but not significant impacts are noted at the remaining study intersections. The existing with project build-out traffic volumes at the study intersections during the weekday AM and PM peak hours are provided in ***Figures 9-1*** and ***9-2***, respectively.

9.2 Future Conditions

9.2.1 Future Without Project Conditions

The future without project conditions were forecast based on the addition of traffic generated by the completion and occupancy of related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth to year 2018). The *v/c* ratios and delay values at all of the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in *Table 6-1*. As presented in column [3] of *Table 9-1*, four of the seven study intersections are expected to operate at LOS D or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic and related projects traffic under the future without project conditions. The remaining study intersections are expected to operate at LOS E or F during the weekday PM peak hour under the future year 2018 without project conditions as shown in *Table 9-1*. The future year 2018 without project (existing, ambient growth, and related projects) traffic

Table 9-1
SUMMARY OF VOLUME TO CAPACITY RATIOS/DELAY AND LEVELS OF SERVICE AM AND PM PEAK HOURS

			[1]		[2]				[3]		[4]				[5]			
			YEAR 2015 EXISTING		YEAR 2015 EXISTING WITH PROJECT				YEAR 2018 FUTURE PRE-PROJECT W/ AG & REL. PROJECTS		YEAR 2018 FUTURE WITH PROPOSED PROJECT				YEAR 2018 FUTURE WITH PROPOSED PROJECT + MITIGATION			
NO.	INTERSECTION	PEAK HOUR	V/C or DELAY	LOS [a]	V/C or DELAY	LOS [a]	CHANGE V/C or DELAY [(2)-(1)]	SIGNIF. IMPACT [c]	V/C or DELAY	LOS [a]	V/C or DELAY	LOS [a]	CHANGE V/C or DELAY [(4)-(3)]	SIGNIF. IMPACT [c]	V/C	LOS	CHANGE V/C or DELAY [(5)-(3)]	MITIGATED
1	Peck Road/ Asher Street [b]	AM	26.4	D	25.0	C	-1.4	No	31.9	D	30.0	D	-1.9	No	30.0	D	-1.9	---
		PM	38.5	E	38.4	E	-0.1	No	>50.0	F	>50.0	F	-0.6	No	>50.0	F	-0.6	---
2	Peck Road/ Garvey Avenue	AM	0.802	D	0.809	D	0.007	No	0.855	D	0.863	D	0.008	No	0.863	D	0.008	---
		PM	0.835	D	0.840	D	0.005	No	0.906	E	0.911	E	0.005	No	0.911	E	0.005	---
3	Meeker Avenue/ Garvey Avenue	AM	0.536	A	0.563	A	0.027	No	0.558	A	0.584	A	0.026	No	0.584	A	0.026	---
		PM	0.643	B	0.664	B	0.021	No	0.683	B	0.704	C	0.021	No	0.704	C	0.021	---
4	La Madera Avenue/ Valley Boulevard [b]	AM	20.4	C	27.8	D	7.4	No	27.5	D	39.4	E	11.9	Yes	18.4	C	-21.0	Yes
		PM	27.4	D	38.1	E	10.7	Yes	>50.0	F	>50.0	F	--	Yes	28.1	D	--	Yes
5	La Madera Avenue/ Garvey Avenue [b]	AM	13.1	B	19.1	C	6.0	No	14.7	B	22.4	C	7.7	No	22.4	C	7.7	---
		PM	13.4	B	16.8	C	3.4	No	17.9	C	24.5	C	6.6	No	24.5	C	6.6	---
6	Mountain View Road/ Garvey Avenue	AM	0.485	A	0.510	A	0.025	No	0.506	A	0.531	A	0.025	No	0.531	A	0.025	---
		PM	0.608	B	0.619	B	0.011	No	0.636	B	0.646	B	0.010	No	0.646	B	0.010	---
7	Valley Boulevard/ Garvey Avenue	AM	0.701	C	0.727	C	0.026	No	0.743	C	0.769	C	0.026	No	0.769	C	0.026	---
		PM	0.801	D	0.819	D	0.018	No	0.877	D	0.895	D	0.018	No	0.895	D	0.018	---

[a] Level of Service (LOS) is based on the reported ICU value for signalized intersections and on the delay for unsignalized intersections. When LOS F is reached for an unsignalized intersection, the intersection becomes unstable and the calculated delay values become unreliable/unrealistic. Small increases in traffic volumes may result in very large increases in the calculated delay values which is not representative of actual conditions. Therefore, where calculated delay values are over 50.0 seconds (i.e., LOS F conditions by HCM definition), over-saturated conditions are expected and delay values of "> 50.0" seconds are reported in this table.

[b] Two-Way Stop-Controlled Intersection. Reported values represent the delays associated with the most constrained approach of the intersection.

[c] The City of El Monte intersection impact threshold criteria for signalized and unsignalized intersections are as follows:
For signalized intersections:
- Change in v/c >= 0.02 and causing or worsening LOS F (v/c >= 1.00) for intersections along major corridors, truck routes, commercial corridors or, at or adjacent to, freeway ramps
- Change in v/c >= 0.02 and causing or worsening LOS E (v/c >= 0.90) at all other intersections
For unsignalized intersections:
- Increase in traffic delay by two (2) percent or more of capacity, causing or worsening LOS E (control delay > 35 seconds)

LINSCOTT, LAW & GREENSPAN, *engineers*

LLG Ref. 1-15-4125-1
El Monte Mixed-Use Project

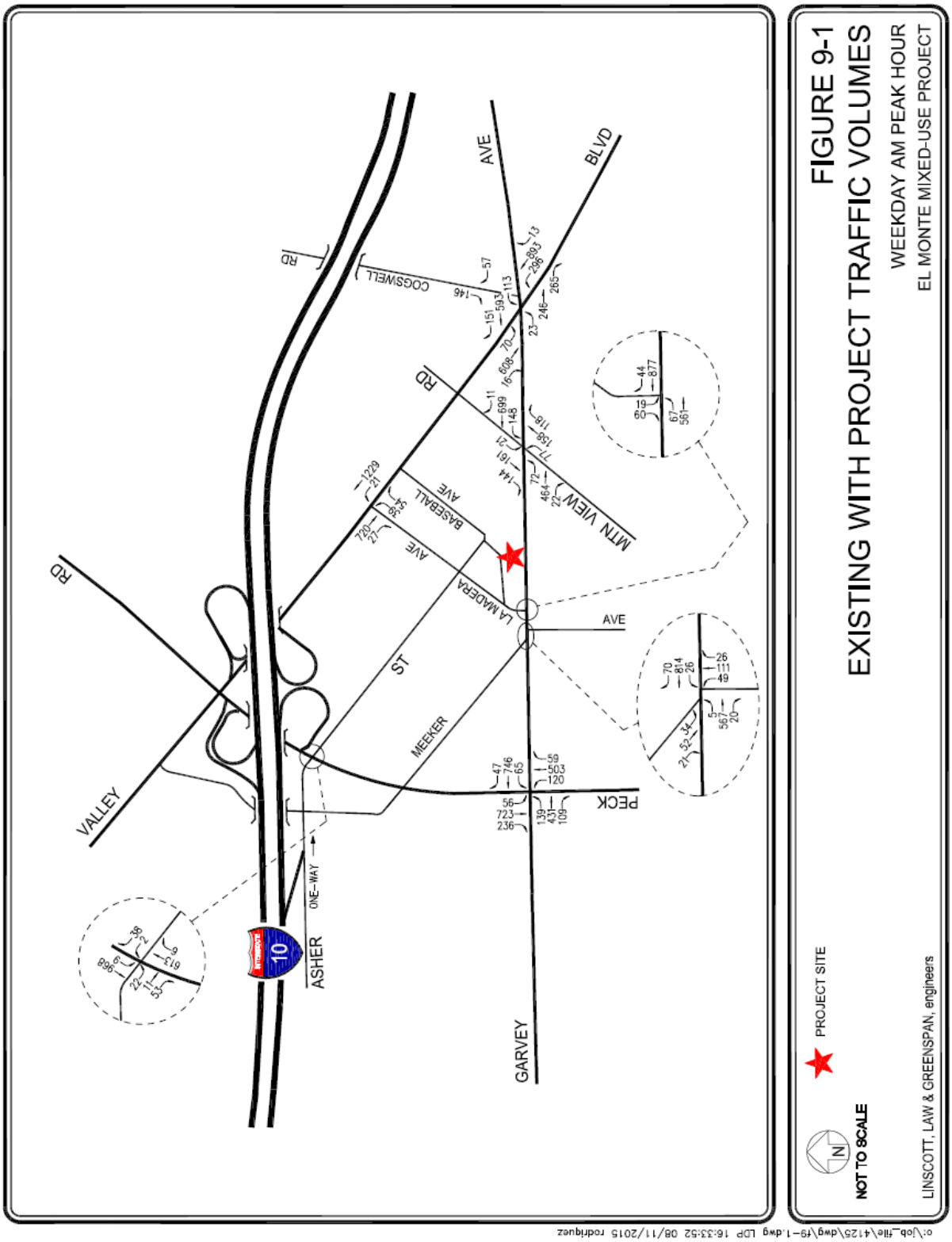
FIGURE 9-1
EXISTING WITH PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
VALLEY
RD
ASHER
ONE-WAY
MEEKER
ST
LA MADERA
AVE
BASEBALL
AVE
MTN VIEW
RD
COGSWELL
RD
AVE
BLVD
GARVEY
AVE
PECK
10

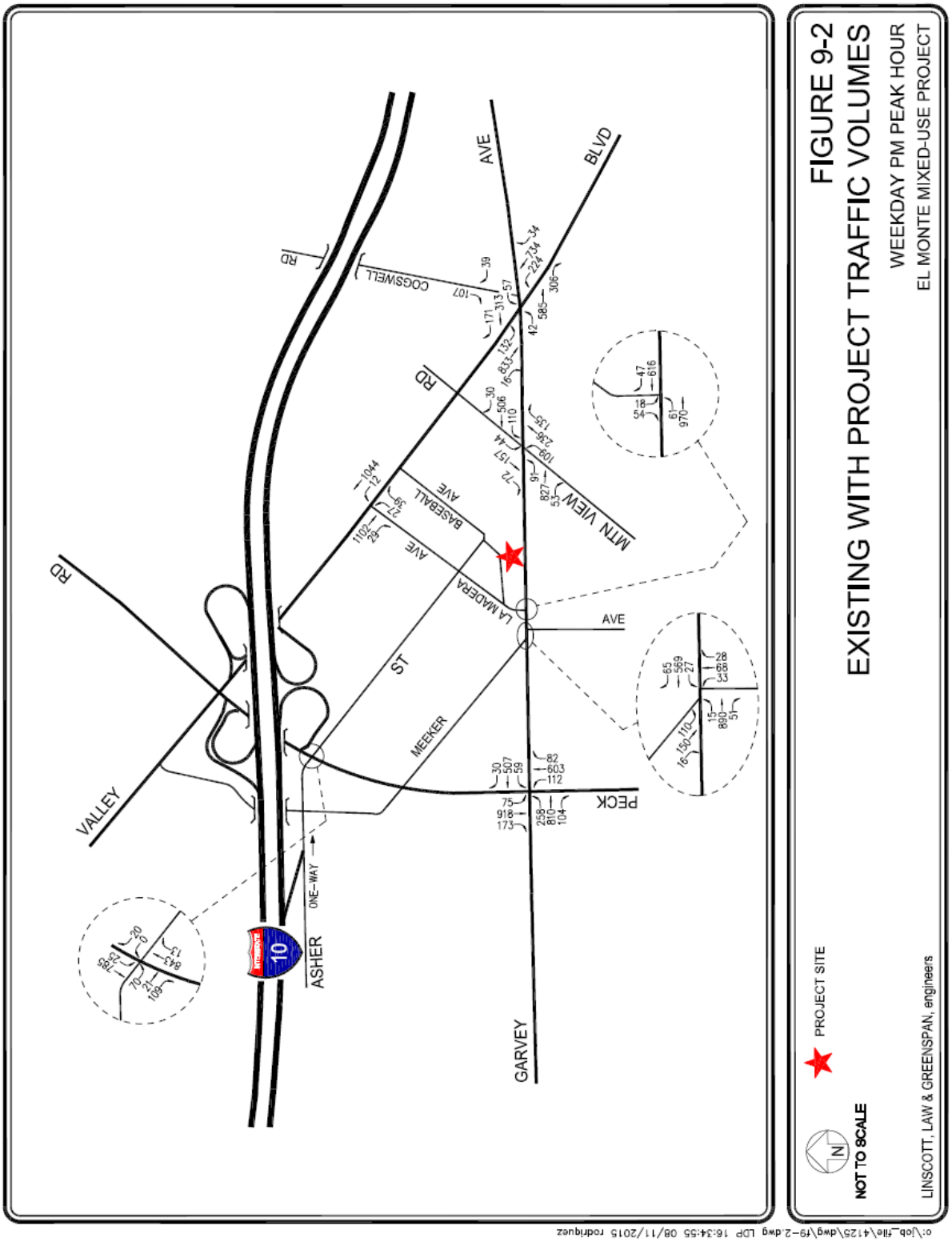
FIGURE 9-2
EXISTING WITH PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
o:\job_file\4125\dwg\f9-2.dwg LDP 16:34:55 08/11/2015 rodriguez
RD
VALLEY
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BASEBALL
AVE
MTN VIEW
RD
COGSWELL
RD
AVE
BLVD

volumes at the study intersections during the weekday AM and PM peak hours are provided in ***Figures 9-3*** and ***9-4***, respectively.

9.2.2 Future With Project Conditions

As shown in column [4] of *Table 9-1*, application of the City of El Monte's threshold criteria to the "Year 2018 Future With Proposed Project" scenario indicates that the proposed project is expected to result in a significant impact at one of the seven study intersections during the peak hours as shown below:

- Intersection No. 4: La Madera Avenue/Valley Boulevard – AM and PM Peak Hours

Incremental but not significant impacts are noted at the remaining study intersections. The future with project (existing, ambient growth, related projects, and project) traffic volumes at the study intersections during the weekday AM and PM peak hours are provided in ***Figures 9-5*** and ***9-6***, respectively.

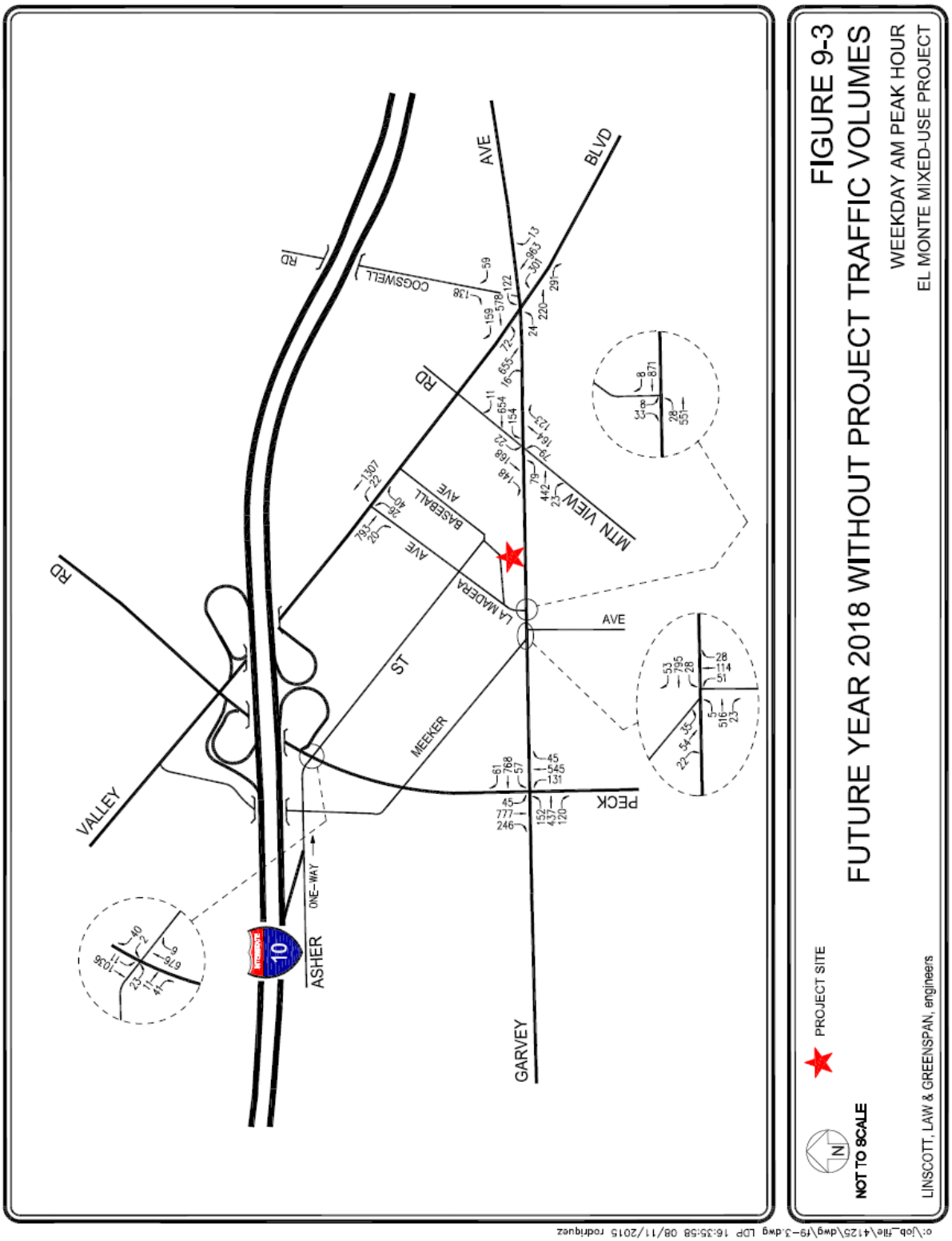
FIGURE 9-3
FUTURE YEAR 2018 WITHOUT PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
VALLEY
RD
ASHER
ONE-WAY
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MEEKER
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LA MADERA
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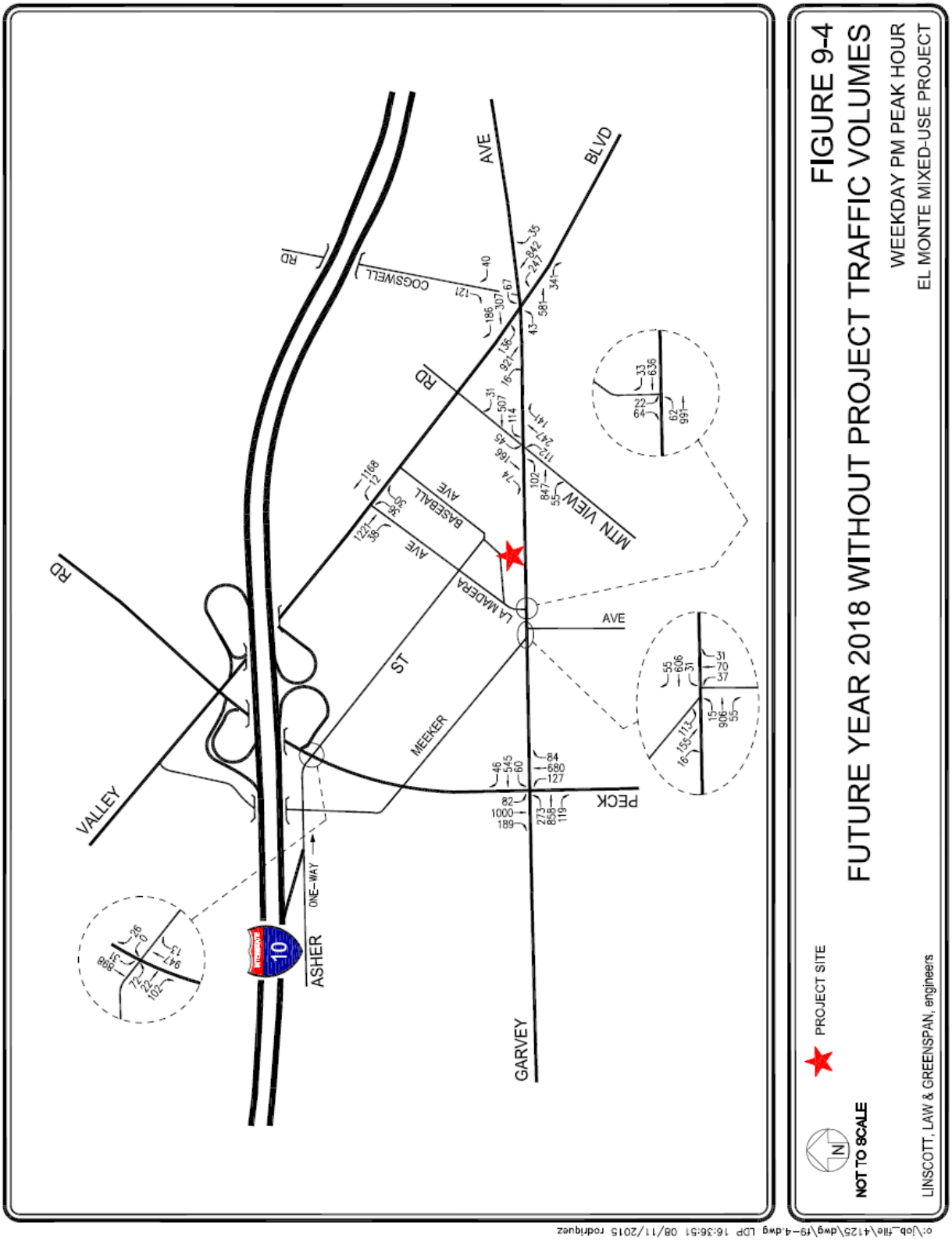
FIGURE 9-4
FUTURE YEAR 2018 WITHOUT PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
o:\job_file\4125\dwg\f9-4.dwg LDP 16:36:51 08/11/2015 rodriguez
GARVEY AVE
PECK
MEEKER ST
VALLEY
ASHER
ONE-WAY
LA MADERA AVE
BASEBALL AVE
MTN VIEW
COGSWELL RD
RD
BLVD
10

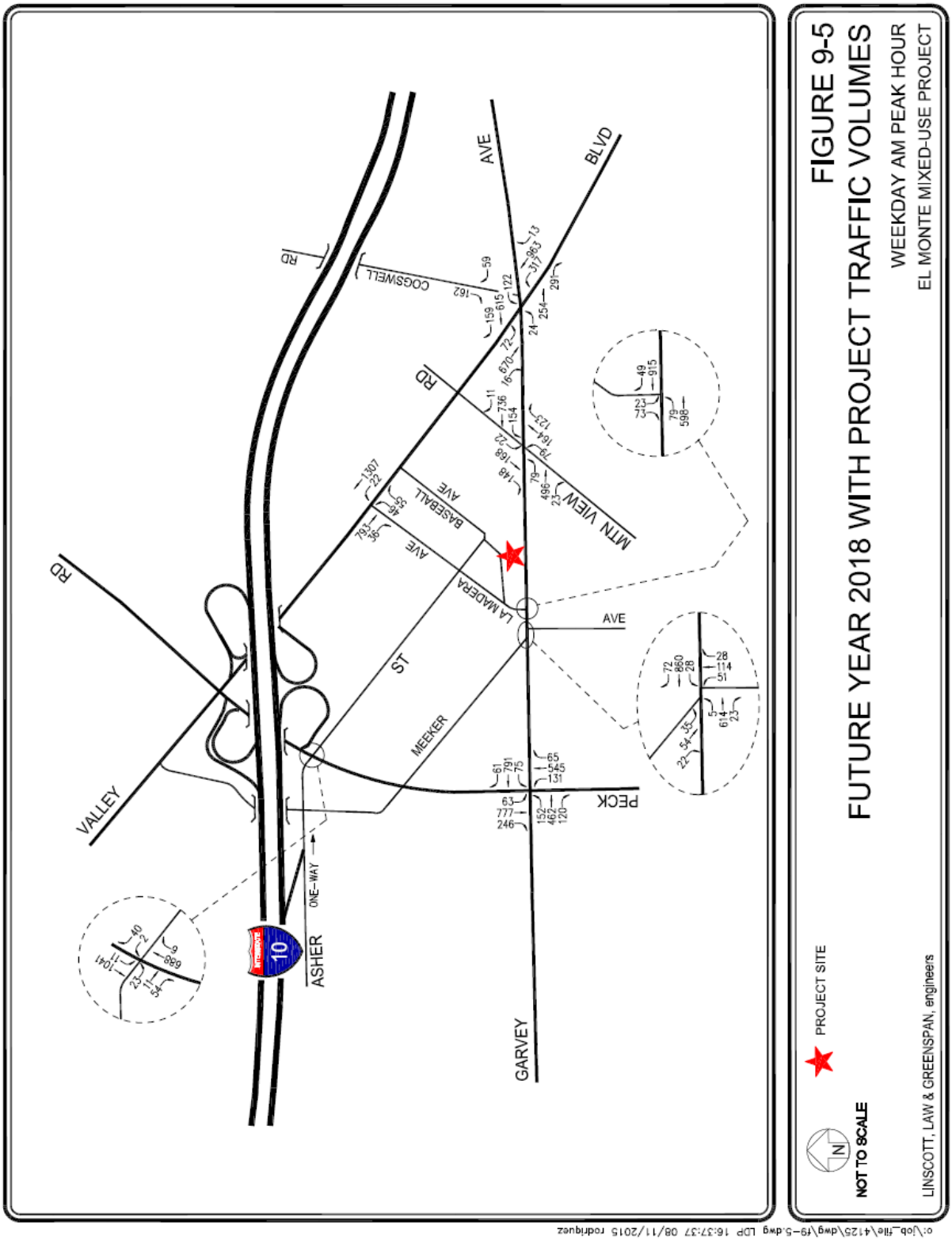
FIGURE 9-5
FUTURE YEAR 2018 WITH PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
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GARVEY AVE
PECK
MEEKER ST
LA MADERA AVE
BASEBALL AVE
MTN VIEW
COGSWELL RD
VALLEY RD
ASHER
ONE-WAY
BLVD
10

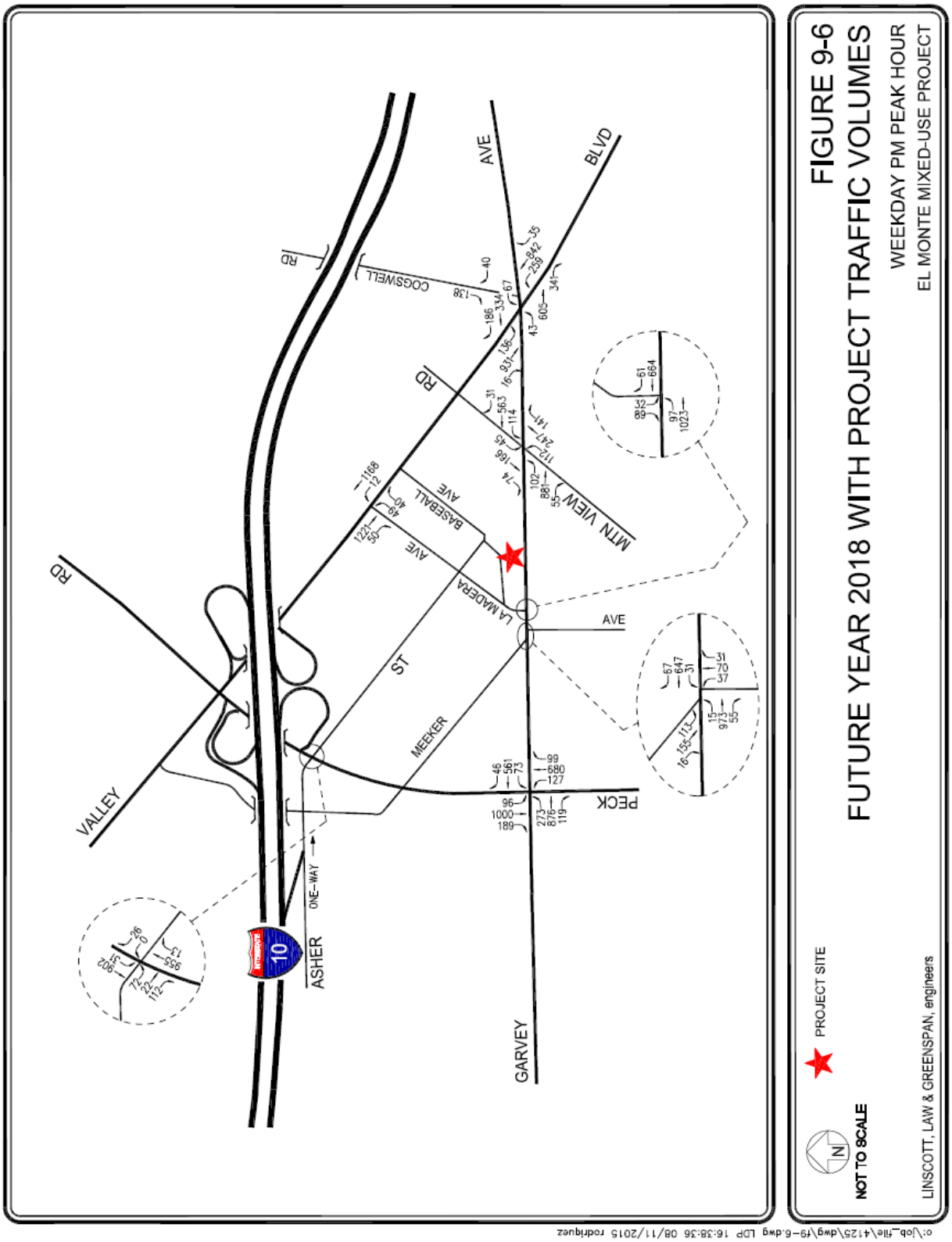
FIGURE 9-6
FUTURE YEAR 2018 WITH PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
EL MONTE MIXED-USE PROJECT
PROJECT SITE
NOT TO SCALE
LINSCOTT, LAW & GREENSPAN, engineers
GARVEY
PECK
MEEKER
ASHER
ONE-WAY
VALLEY
RD
ST
AVE
BLVD
COGSWELL
MTN VIEW
BASEBALL
LA MADERA
10

10.0 TRANSPORTATION MITIGATION PROGRAM

The following section provides an overview of the transportation improvement measure that is anticipated to address impacts to the local roadway network associated with the proposed project. It is important to note that the traffic analysis has been based on a conservative approach with respect to the analysis of potential project-related impacts.

10.1 Study Intersection

As summarized in Subsections 9.1.2 (Existing With Project Conditions) and 9.2.2 (Future With Project Conditions), application of the City's threshold criteria to the with project scenarios indicates that the proposed project is anticipated to result in a significant traffic impact at one of the seven study intersections. Incremental but not significant impacts are noted at the remaining study intersections. The recommended project traffic mitigation program includes physical roadway improvements. The following paragraph summarizes the recommended transportation mitigation measures.

- Intersection No. 4: La Madera Avenue/Valley Boulevard

  The recommended mitigation measure consists of a minor restriping of the existing two-way left-turn area on Valley Boulevard, west of La Madera Avenue. The existing two-way left-turn lane on Valley Boulevard currently is not striped to allow direct entry of northbound left-turning La Madera Avenue motorists. Thus, a northbound left-turning vehicle (i.e., a motorist destined to westbound Valley Boulevard) must wait for an acceptable gap in both the opposing eastbound and westbound through traffic volumes. By restriping the eastern end of the two-way left-turn lane (just west of La Madera Avenue) to allow legal entry for northbound left-turning motorists, a formal two-stage gap acceptance can be provided, thus decreasing significantly the northbound approach vehicle delays. In other words, through this minor roadway restriping, a northbound left-turning motorist on La Madera Avenue can legally turn left into the two-way left-turn lane west of the intersection and correspondingly only require an acceptable gap in the opposing eastbound through traffic flow, and not in both the opposing eastbound and westbound traffic flows. As shown in *Table 9-1*, this improvement is expected to reduce the project's significant traffic impact to a less than significant level.

11.0 CONGESTION MANAGEMENT PROGRAM TRAFFIC IMPACT ASSESSMENT

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system.

As required by the 2010 Congestion Management Program, a Traffic Impact Assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The analysis has been prepared in accordance with procedures outlined in the *2010 Congestion Management Program*, Los Angeles County Metropolitan Transportation Authority, October 2010.

According to Section D.9.1 (Appendix D, page D-6) of the 2010 CMP manual, the criteria for determining a significant transportation impact is listed below:

> "A significant transportation impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C $\geq$ 0.02), causing or worsening LOS F (V/C > 1.00); if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C $\geq$ 0.02)."

The CMP impact criteria apply for analysis of both intersection and freeway monitoring locations.

11.1 Intersections

The following CMP intersection monitoring locations in the project vicinity have been identified:

No. 131	Rosemead Boulevard/Valley Boulevard
No. 142	Rosemead Boulevard/Garvey Avenue

The CMP TIA guidelines require that intersection monitoring locations must be examined if the proposed project will add 50 or more trips during either the weekday AM or PM peak hours. The proposed project will not add 50 or more trips during either the weekday AM or PM peak hours (i.e., of adjacent street traffic) at CMP monitoring intersections, as stated in the CMP manual as the threshold criteria for a traffic impact assessment. The project is anticipated to contribute at most nine (9) vehicle trips during the AM peak hour and six (6) vehicle trips during the PM peak hour to the Rosemead Boulevard/Garvey Avenue intersection. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

11.2 Freeways

The following CMP freeway monitoring locations in the project vicinity have been identified:

CMP Station	Location
Seg. No. 1017	Interstate 10 east of Peck Road
Seg. No. 1076	Interstate 605 north of Junction Route 60

The CMP TIA guidelines require that freeway monitoring locations must be examined if the proposed project will add 150 or more trips (in either direction) during either the weekday AM or PM peak periods. The proposed project will not add 150 or more trips (in either direction) during either the weekday AM or PM peak hours to CMP freeway monitoring locations which is the threshold for preparing a traffic impact assessment, as stated in the CMP manual. As summarized in *Table 7-1,* the project is anticipated to generate at most a total of 131 inbound vehicle trips during the AM peak hour and a total of 97 inbound vehicle trips during the PM peak hour, which is well below the 150 trips threshold. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

11.3 Transit Impact Review

As required by the *2010 Congestion Management Program*, a review has been made of the potential impacts of the project on transit service. As discussed in Subsection 4.5 herein, existing transit service is provided in the vicinity of the proposed project.

The project trip generation, as shown in *Table 7-1*, was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 3.5 percent of the total person trips) to estimate transit trip generation. Pursuant to the CMP guidelines, the proposed project is forecast to generate demand for 12 transit trips during the weekday AM peak hour and 9 transit trips during the weekday PM peak hour. Over a 24-hour period, the proposed project is forecast to generate demand for 147 weekday daily transit trips The calculations are as follows:

- Weekday AM Peak Hour = 253 × 1.4 × 0.035 = 12 Transit Trips
- Weekday PM Peak Hour = 181 × 1.4 × 0.035 = 9 Transit Trips
- Weekday Daily Trips = 3,002 × 1.4 × 0.035 = 147 Transit Trips

As shown in *Table 4-2*, eight bus lines and routes are provided adjacent to or in close proximity the project site. As outlined in *Table 4-2*, under the "No. of Buses/Trains During Peak Hour" column, these transit lines provide services for an average of (i.e., average of the directional number of buses/trains during the peak hours) roughly 37 and 34 buses during the weekday AM and PM peak hours, respectively. Therefore, based on the above calculated weekday AM and PM peak hour transit trips, this would correspond to less than one additional transit rider per bus. Thus, given the number of project-generated transit trips per bus, no project impacts on existing or future transit services in the project area are expected to occur as a result of the proposed project.

12.0 CONCLUSIONS

This traffic impact study has been prepared to identify and evaluate the potential impacts of traffic generated by the proposed mixed-use project located at 11707 Garvey Avenue and 3100 Baseball Avenue in the City of El Monte, California. The proposed project consists of a mix of senior apartment units, assisted living units, and special needs (memory loss care) units, as well as various ground floor retail and restaurant uses. A total of 119 parking spaces (109 standard spaces, 6 handicap accessible spaces, 2 electric vehicle charging station spaces, and 2 loading spaces) is planned to be provided site-wide to accommodate the proposed El Monte Mixed-Use project. Completion of the building construction and occupancy of the proposed El Monte Mixed-Use project is anticipated in year 2018.

The proposed project is forecast to generate 253 vehicle trips (131 inbound trips and 122 outbound trips) during the weekday AM peak hour and 181 vehicle trips (97 inbound trips and 84 outbound trips) during the weekday PM peak hour. Over a 24-hour period, the proposed project is forecast to generate 3,002 daily trip ends during a typical weekday (1,501 inbound trips and 1,501 outbound trips).

In order to evaluate the potential impacts due to the proposed project, seven intersections were identified for evaluation in consultation with the City of El Monte staff to determine changes in operations following occupancy and utilization of the proposed project. It is concluded that the proposed project is expected to result in a significant traffic impact at one of the study intersections (i.e., La Madera Avenue/Valley Boulevard) for existing with project and future with project conditions. Incremental, but less than significant impacts are noted at the remaining study intersections and locations outside of the study area. The recommended transportation mitigation measure consists of a minor restriping of the existing two-way left-turn area on Valley Boulevard, west of La Madera Avenue. By restriping the eastern end of the two-way left-turn lane (just west of La Madera Avenue) to allow legal entry for northbound left-turning motorists, a formal two-stage gap acceptance can be provided, thus decreasing significantly the northbound approach vehicle delays. Through this minor roadway restriping, a northbound left-turning motorist on La Madera Avenue can legally turn left into the two-way left-turn lane west of the intersection and correspondingly only require an acceptable gap in the opposing eastbound through traffic flow, and not in both the opposing eastbound and westbound traffic flows. This improvement is expected to reduce the project's significant traffic impact to a less than significant level.

Two CMP monitoring intersections and two freeway monitoring locations were identified based on the 2010 Congestion Management Program for Los Angeles County. The CMP TIA guidelines require that intersection monitoring locations be examined if the proposed project will add 50 or more trips during either the weekday AM or PM peak hours. In addition, freeway monitoring locations must be examined if the proposed project will add 150 or more trips (in either direction) during either the weekday AM or PM peak hours. Based on the project trip generation forecasts, further review of potential impacts to the intersection and freeway monitoring locations that are part of the CMP highway system is not required.

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INTRODUCTION TO UTILITY SCREENING TABLES

The following worksheets are used to evaluated the potential impacts of a project.

Table 1 Definition of Project

This Table is used to establish the proposed development parameters that are used the calculation of utilities usage. The independent variable to be entered is identified by shading. For residential development, the number of housing units should be entered in the shaded area. For non-residential development, the total floor area of development should be entered in the shaded area.

Tables 2 Summary of Project Impacts

Consumption/Generation Rates. This table indicates the development's projected electrical consumption, natural gas consumption, water consumption, effluent generation, and solid waste generation. No modifications should be made to this table.

Tables 3 through 7 Calculation of Project Impacts

Tables 3 through 7 indicate the results of the analysis.

Table 3 Electrical Consumption - This Table calculates the projected electrical consumption for new development. Default generation rates provided in the shaded areas may be changed.

Table 4 Natural Gas Consumption - This Table calculates the projected natural gas useagefor new development. Default generation rates provided in the shaded areas may be changed.

Table 5 Water Consumption - This Table calculates the projected water consumption ratesfor new development. Default generation rates provided in the shaded areas may be changed.

Table 6 Sewage Generation - This Table calculates the projected effluent generation rates for new development. Default generation rates provided in the shaded areas may be changed.

Table 7 Solid Waste Generation - This Table calculates the projected waste generation for new development. Default generation rates provided in the shaded areas may be changed.

Table 1 Project Name: El Monte Mixed Use Development

Definition of Project Parameters - Enter independent variable (no. of units or floor area) in the shaded area. The independent variable to be entered is the number of units (for residential development) or the gross floor area (for non-residential development).

Land Use	Independent	Factor
Residential Uses	**Variable**	**Total Units**
Single-Family Residential	No. of Units	0
Medium Density Residential	No. of Units	0
Senior Units	No. of Units	28
Assisted Living/Memory Loss Rooms	No. of Rooms	96
Office Uses	**Variable**	**Total Floor Area**
Office	Sq. Ft.	0
Medical Office Building	Sq. Ft.	0
Office Park	Sq. Ft.	0
Bank/Financial Services	Sq. Ft.	0
Commercial Uses	**Variable**	**Floor Area/Rooms**
Specialty Retail Commercial	Sq. Ft.	14,882
Convenience Store	Sq. Ft.	0
Movie Theater	Sq. Ft.	0
Shopping Center	Sq. Ft.	0
Sit-Down Restaurant	Sq. Ft.	4,685
Fast-Food Restaurant	Sq. Ft.	0
Hotel	Rooms	0
Manufacturing Uses	**Variable**	**Total Floor Area**
Industrial Park	Sq. Ft.	0
Manufacturing	Sq. Ft.	0
General Light Industry	Sq. Ft.	0
Warehouse	Sq. Ft.	0
Public/Institutional	**Variable**	**Total Floor Area**
Public/Institutional	Sq. Ft.	0
Open Space	Sq. Ft.	0

Table 2: Projected Utility Consumption and Generation

Summary of Project Impacts - Results of analysis identified below. No modifications should be made to this Table.

Utilities Consumption and Generation	Factor	Rates
Electrical Consumption	kWh/day	2,936
Natural Gas Consumption	cubic feet/day	1,518
Water Consumption	gallons/day	28,177
Sewage Generation	gallons/day	23,248
Solid Waste Generation	pounds/day	1,149

Table 3: Electrical Consumption

Project Component	Units of Measure	Consumption Factor		Projected Consumption
Residential Uses	**No. of Units**	**kWh**	**Variable**	**kWh/Unit/Day**
Single-Family Residential	0	5,625.00	kWh/Unit/Year	0.0
Medium Density Residential	0	5,625.00	kWh/Unit/Year	0.0
Senior Units	28	5,625.00	kWh/Unit/Year	431.5
Assisted Living/Memory Loss Rooms	96	4,644.00	kWh/Unit/Year	1,221.4
Office Uses	**Sq. Ft.**	**kWh**	**Variable**	**kWh/Sq. Ft./Day**
Office	0	20.80	kWh/Sq. Ft./Year	0.0
Medical Office Building	0	14.20	kWh/Sq. Ft./Year	0.0
Office Park	0	20.80	kWh/Sq. Ft./Year	0.0
Bank/Financial Services	0	20.80	kWh/Sq. Ft./Year	0.0
Commercial Uses	**Sq. Ft./Rooms**	**kWh**	**Variable**	**kWh/Sq. Ft./Day**
Specialty Retail Commercial	14,882	16.00	kWh/Sq. Ft./Year	652.4
Convenience Store	0	16.00	kWh/Sq. Ft./Year	0.0
Movie Theater	0	16.00	kWh/Sq. Ft./Year	0.0
Shopping Center	0	35.90	kWh/Sq. Ft./Year	0
Sit-Down Restaurant	4,685	49.10	kWh/Sq. Ft./Year	630.2
Fast-Food Restaurant	0	49.10	kWh/Sq. Ft./Year	0.0
Hotel	0	8,955.00	kWh/Sq. Ft./Year	0.0
Manufacturing Uses	**Sq. Ft.**	**kWh**	**Variable**	**kWh/Sq. Ft./Day**
Industrial Park	0	4.80	kWh/Sq. Ft./Year	0.0
Manufacturing	0	4.80	kWh/Sq. Ft./Year	0.0
General Light Industry	0	4.80	kWh/Sq. Ft./Year	0.0
Warehouse	0	4.80	kWh/Sq. Ft./Year	0.0
Public/Institutional	**Sq. Ft.**	**kWh**	**Variable**	**kWh/Sq. Ft./Day**
Public/Institutional	0	4.80	kWh/Sq. Ft./Year	0.0
Open Space	0	0.00	kWh/Sq. Ft./Year	0.0
Total Daily Electrical Consumption (kWh/day)				2,935.5

Sources:
Residential rates were derived from the SCAQMD's CEQA Air Quality Handbook (April 1993).
All other rates are from Common Forecasting Methodology VII Demand Forms, 1989

Table 4: Natural Gas Consumption

Project Component	Units of Measure	Consumption Factor		Projected Consumption
Residential Uses	**No. of Units**	**Cu. Ft. of Nat. Gas**	**Variable**	**Cu. Ft./Day**
Single-Family Residential	0	6,665.00	Cu. Ft./Mo./Unit	0.0
Medium Density Residential	0	4,011.50	Cu. Ft./Mo./Unit	0.0
Senior Units	28	4,011.50	Cu. Ft./Mo./Unit	307.7
Assisted Living/Memory Loss Rooms	96	4,011.50	Cu. Ft./Mo./Unit	1,055.1
Office Uses	**Sq. Ft.**	**Cu. Ft. of Nat. Gas**	**Variable**	**Cu. Ft./Day**
Office	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Medical Office Building	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Office Park	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Bank/Financial Services	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Commercial Uses	**Sq. Ft./Rooms**	**Cu. Ft. of Nat. Gas**	**Variable**	**Cu. Ft./Day**
Specialty Retail Commercial	14,882	2.90	Cu. Ft./Mo./Sq. Ft.	118.2
Convenience Store	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Movie Theater	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Shopping Center	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Sit-Down Restaurant	4,685	2.90	Cu. Ft./Mo./Sq. Ft.	37.2
Fast-Food Restaurant	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Hotel	0		Cu. Ft./Mo./Room	0.0
Manufacturing Uses	**Sq. Ft.**	**Cu. Ft. of Nat. Gas**	**Variable**	**Cu. Ft./Day**
Industrial Park	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
Manufacturing	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
General Light Industry	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
Warehouse	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
Public/Institutional Use	**Sq. Ft.**	**Cu. Ft. of Nat. Gas**	**Variable**	**Cu. Ft./Day**
Public/Institutional	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Open Space	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Total Daily Natural Gas Consumption (cubic feet/day)				1,518.3

Sources:
South Coast Air Quality Management District, CEQA Air Quality Handbook. April 1993

Table 5: Water Consumption

Project Component	Units of Measure	Consumption Factor		Projected Consumption
Residential Uses	**No. of Units**	**Gals. of Water**	**Variable**	**Gals./Day**
Single-Family Residential	0	250.00	Gals./Day/Unit	0.0
Medium Density Residential	0	200.00	Gals./Day/Unit	0.0
Senior Units	28	200.00	Gals./Day/Unit	5,600.0
Assisted Living/Memory Loss Rooms	96	200.00	Gals./Day/Unit	19,200.0
Office Uses	**Sq. Ft.**	**Gals. of Water**	**Variable**	**Gals./Day**
Office	0	0.14	Gals./Day/Sq. Ft.	0.0
Medical Office Building	0	0.14	Gals./Day/Sq. Ft.	0.0
Office Park	0	0.14	Gals./Day/Sq. Ft.	0.0
Bank/Financial Services	0	0.14	Gals./Day/Sq. Ft.	0.0
Commercial Uses	**Sq. Ft./Room**	**Gals. of Water**	**Variable**	**Gals./Day**
Specialty Retail Commercial	14,882	0.10	Gals./Day/Sq. Ft.	1,503.1
Convenience Store	0	0.10	Gals./Day/Sq. Ft.	0.0
Movie Theater	0	0.10	Gals./Day/Sq. Ft.	0.0
Shopping Center	0	0.10	Gals./Day/Sq. Ft.	0.0
Sit-Down Restaurant	4,685	0.40	Gals./Day/Sq. Ft.	1,874.0
Fast-Food Restaurant	0	0.11	Gals./Day/Sq. Ft.	0.0
Hotel	0	130.00	Gals./Day/Room.	0.0
Manufacturing Uses	**Sq. Ft.**	**Gals. of Water**	**Variable**	**Gals./Day**
Industrial Park	0	0.14	Gals./Day/Sq. Ft.	0.0
Manufacturing	0	0.14	Gals./Day/Sq. Ft.	0.0
General Light Industry	0	0.14	Gals./Day/Sq. Ft.	0.0
Warehouse	0	0.01	Gals./Day/Sq. Ft.	0.0
Public/Institutional Use	**Sq. Ft.**	**Gals. of Water**	**Variable**	**Gals./Day**
Public/Institutional	0	0.10	Gals./Day/Sq. Ft.	0.0
Open Space	0	0.10	Gals./Day/Sq. Ft.	0.0
Total Daily Water Consumption (gallons/day)				28,177.1

Sources:

Source: Derived from Orange County Sanitation District rates (150% of effluent generation).

Table 6: Sewage Generation

Project Component	Units of Measure	Generation Factor		Projected Consumption
Residential Uses	**No. of Units**	**Gals. of Effluent**	**Variable**	**Gals./Day**
Single-Family Residential	0	230.00	Gals./Day/Unit	0.0
Medium Density Residential	0	200.00	Gals./Day/Unit	0.0
Senior Units	28	120.00	Gals./Day/Unit	3,360.0
Assisted Living/Memory Loss Rooms	96	180.00	Gals./Day/Unit	17,280.0
Office Uses	**Sq. Ft.**	**Gals. of Effluent**	**Variable**	**Gals./Day**
Office	0	0.11	Gals./Day/Sq. Ft.	0.0
Medical Office Building	0	0.11	Gals./Day/Sq. Ft.	0.0
Office Park	0	0.11	Gals./Day/Sq. Ft.	0.0
Bank/Financial Services	0	0.11	Gals./Day/Sq. Ft.	0.0
Commercial Uses	**Sq. Ft./Rooms**	**Gals. of Effluent**	**Variable**	**Gals./Day**
Specialty Retail Commercial	14,882	0.08	Gals./Day/Sq. Ft.	1,202.5
Convenience Store	0	0.08	Gals./Day/Sq. Ft.	0.0
Movie Theater	0	0.08	Gals./Day/Sq. Ft.	0.0
Shopping Center	0	0.08	Gals./Day/Sq. Ft.	0.0
Sit-Down Restaurant	4,685	0.30	Gals./Day/Sq. Ft.	1,405.5
Fast-Food Restaurant	0	0.08	Gals./Day/Sq. Ft.	0.0
Hotel	0	105	Gals./Day/Room.	0.0
Manufacturing Uses	**Sq. Ft.**	**Gals. of Effluent**	**Variable**	**Gals./Day**
Industrial Park	0	0.11	Gals./Day/Sq. Ft.	0.0
Manufacturing	0	0.11	Gals./Day/Sq. Ft.	0.0
General Light Industry	0	0.11	Gals./Day/Sq. Ft.	0.0
Warehouse	0	0.01	Gals./Day/Sq. Ft.	0.0
Public/Institutional Use	**Sq. Ft.**	**Gals. of Effluent**	**Variable**	**Gals./Day**
Public/Institutional	0	0.08	Gals./Day/Sq. Ft.	0.0
Open Space	0	0.08	Gals./Day/Sq. Ft.	0.0
Total Daily Sewage Generation (gallons/day)				23,248.0

Source: Orange County Sanitation Districts.

Table 7: Solid Waste Generation

Project Component	Units of Measure	Generation Factor		Projected Generation
Residential Uses	**No. of Units**	**Lbs.of Waste**	**Variable**	**Lbs./Day**
Single-Family Residential	0	4.00	Lbs./Day/Unit	0.0
Medium Density Residential	0	4.00	Lbs./Day/Unit	0.0
Senior Units	28	4.00	Lbs./Day/Unit	112.0
Assisted Living/Memory Loss Rooms	96	4.00	Lbs./Day/Unit	384.0
Office Uses	**Sq. Ft.**	**Lbs.of Waste**	**Variable**	**Lbs./Day**
Office	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Medical Office Building	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Office Park	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Bank/Financial Services	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Commercial Uses	**Sq. Ft./Rooms**	**Lbs.of Waste**	**Variable**	**Lbs./Day**
Specialty Retail Commercial	14,882	42.00	Lbs./Day/1,000 Sq. Ft.	625.0
Convenience Store	0	42.00	Lbs./Day/1,000 Sq. Ft.	0.0
Movie Theater	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Shopping Center	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Sit-Down Restaurant	4,685	6.00	Lbs./Day/1,000 Sq. Ft.	28.1
Fast-Food Restaurant	0	42.00	Lbs./Day/1,000 Sq. Ft.	0.0
Hotel	0		Lbs./Day/Room	0.0
Manufacturing Uses	**Sq. Ft.**	**Lbs.of Waste**	**Variable**	**Lbs./Day**
Industrial Park	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Manufacturing	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
General Light Industry	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Warehouse	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Public/Institutional Use	**Sq. Ft.**	**Lbs.of Waste**	**Variable**	**Lbs./Day**
Public/Institutional	0	4.00	Lbs./Day/1,000 Sq. Ft.	0.0
Open Space	0	3.00	Lbs./Day/1,000 Sq. Ft.	0.0
Total Daily Solid Waste Generation				1,149.2

Source: City of Los Angeles Average Solid Waste Generation Rates, April 1981

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