

E-MEMO

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PM

SUBJECT: Del Mar Highlands Estates Affordable Site

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Project Description

Urban Systems Associates was asked to evaluate the potential traffic impacts related to the addition of 13 affordable residential units to the existing Derby Terraces community within Del Mar Highlands Estates on Old El Camino Real. The existing Derby Terraces community is approved for 37 affordable housing units. Pardee Homes is proposing an additional 13 units to be added to the existing site which is currently graded. Access to the site is provided via an existing loop driveway which connects to Old El Camino Real. **Attachment 1** shows the project location. **Attachment 2** shows the proposed additional 13 units along with the previously approved units.

Impact Analysis

As shown in **Attachment 1** the project site is located on Old El Camino Real which presently exists as a two-lane collector. Thirteen additional units would generate approximately 104 average daily trips (ADT) to Old El Camino Real which is a low volume low speed two lane collector. The existing access to the proposed site is shown on **Attachment 3**.

Due to the very low existing traffic volumes on Old El Camino Real (921 ADT, see **Attachment 4**) and very low traffic generation of 104 ADT we expect no capacity or other traffic problems to result from the proposed project. To confirm a good level of service will continue after the additional 13 units are built, we completed both a street segment analysis and AM/PM peak hour intersection analysis. As shown in the table below, Old El Camino Real presently operates at a level of service A. As also shown, with the addition of 104 ADT related to construction of the new units, Old El Camino Real will continue to operate at a level of service (LOS) A.

Street Segment Level of Service For Old El Camino Real*

Segment	Existing ADT	New Project Trips	Total	LOS
N/O Project Access	921	34	955	A
S/O Project Access	921	70	991	A

*Two lane collector, no fronting property LOS = A less than 4000 ADT

Next, we evaluated the two intersections which connect to Old El Camino Real, namely El Camino Real at Derby Downs and Old El Camino Real at San Dieguito Road. We found that both intersections will continue to operate at acceptable levels of service when project traffic is added to existing. **Attachment 5** shows the very minor change in delay due to the new project traffic. Also, **Attachment 5** includes the calculation of AM and PM traffic, the traffic distribution and highway capacity analysis worksheets.

Conclusion

Overall, we found that the proposed addition of 13 affordable housing units at the Derby Terraces affordable site located on Old El Camino Real will not result in any significant traffic impacts. The street segment will continue to function at a level of service A and the adjacent intersections will continue to operate at acceptable levels of service.

**ATTACHMENT 1
Project Location**

(1 page)

Pardee Affordable Housing

Legend

- 2 hour AM?PM count
- Old El Camino Real 24 hour count bi directional

San Dieguito Road at Old El Camino Real 2 hour AM?PM count

North City

Old El Camino Real 24 hour count bi directional

The Villas At Stallions Crossing

Seabreeze At Old El Camino Real

El Camino Real at Durby Downs Road 2 hour AM?PM peak count

Google Earth

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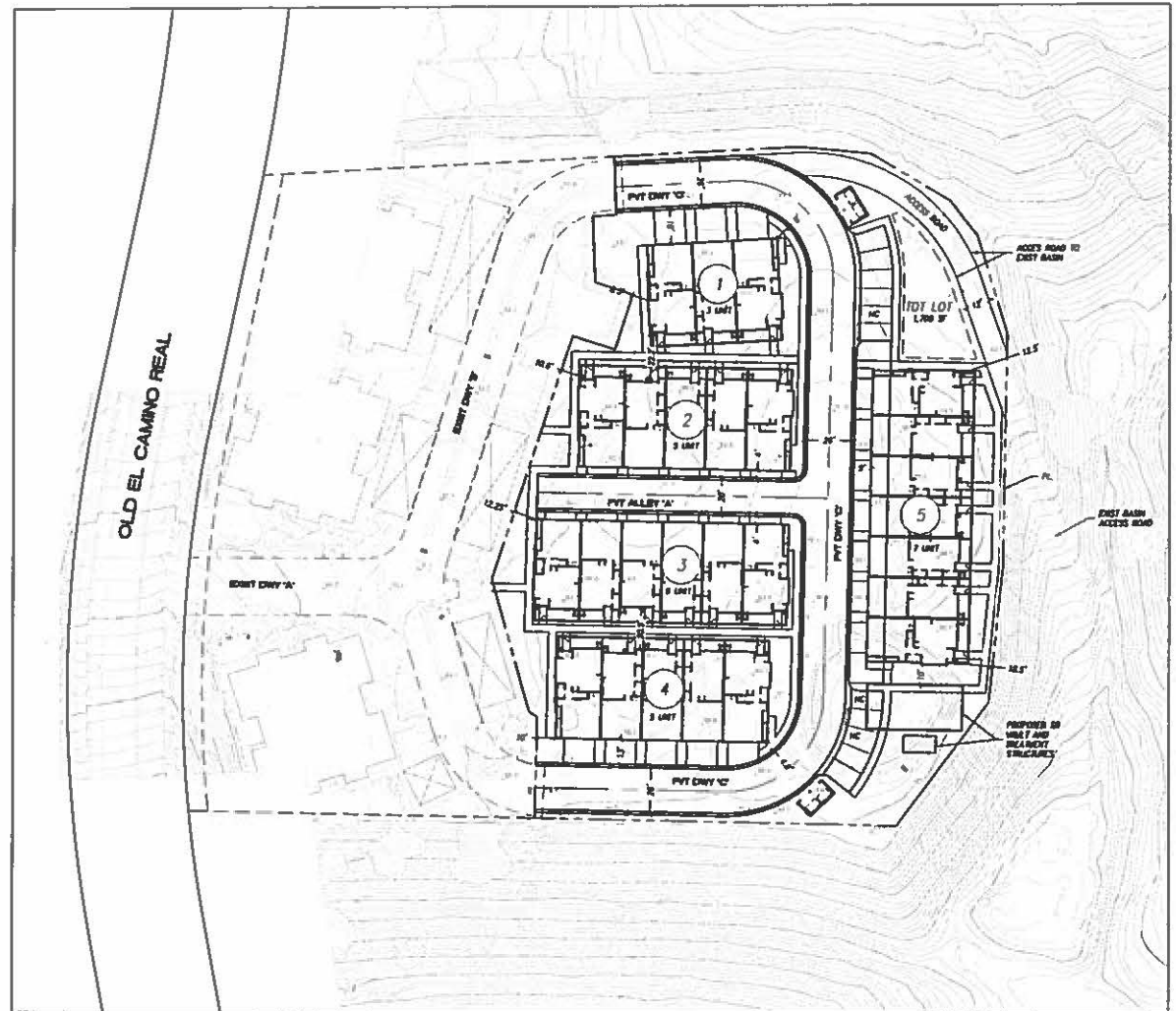
2000 ft



**ATTACHMENT 2
Existing Plus Proposed and Additional Units**

(1 page)

NET SITE AREA: 1.8 AC
TOTAL UNITS: 26 DU
NET DENSITY: 14.4 DU/AC



DEL MAR HIGHLANDS ESTATE
CONCEPT DESIGN – MEADOWOOD PRODUCT
DECEMBER 5, 2019



Attachment 3
Project Site Access

(1 page)

Google Maps

Development Site



Imagery ©2016 DigitalGlobe, U.S. Geological Survey, Map data ©2016 Google 50 ft

Attachment 4
Existing Average Daily Traffic (ADT) on Old Camino Real
Count Date: 01/16/2020

(1 page)

VOLUME

Old El Camino Real 475' S/O Rancho Las Brisas Tr

Day: Thursday

City: San Diego

Date: 1/16/2020

Project #: CA19_4481_001

DAILY TOTALS					NB	SB	EB	WB	Total		
					536	385	0	0	921		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	0	2			2	12:00	9	4			13
00:15	0	0			0	12:15	6	4			10
00:30	1	0			1	12:30	6	9			15
00:45	0	1	0	2	0	12:45	8	29	4	21	12
01:00	0	0			0	13:00	9	7			16
01:15	1	2			3	13:15	6	7			13
01:30	0	0			0	13:30	6	11			17
01:45	0	1	0	2	0	13:45	1	22	7	32	8
02:00	0	0			0	14:00	3	4			7
02:15	0	0			0	14:15	9	4			13
02:30	0	0			0	14:30	10	5			15
02:45	0	0			0	14:45	12	34	12	25	24
03:00	0	0			0	15:00	15	15			30
03:15	0	0			0	15:15	18	15			33
03:30	0	0			0	15:30	20	9			29
03:45	0	0			0	15:45	20	73	10	49	30
04:00	1	0			1	16:00	22	11			33
04:15	0	0			0	16:15	27	8			35
04:30	1	1			2	16:30	23	4			27
04:45	1	3	1	2	2	16:45	39	111	3	26	42
05:00	0	0			0	17:00	25	7			32
05:15	0	1			1	17:15	23	10			33
05:30	0	1			1	17:30	20	4			24
05:45	2	2	2	4	4	17:45	18	86	3	24	21
06:00	3	2			5	18:00	8	7			15
06:15	0	4			4	18:15	8	1			9
06:30	3	5			8	18:30	7	1			8
06:45	1	7	1	12	2	18:45	5	28	5	14	10
07:00	3	5			8	19:00	4	3			7
07:15	4	4			8	19:15	1	4			5
07:30	5	4			9	19:30	2	0			2
07:45	5	17	5	18	10	19:45	3	10	1	8	4
08:00	2	5			7	20:00	2	3			5
08:15	9	4			13	20:15	4	2			6
08:30	1	5			6	20:30	1	1			2
08:45	6	18	11	25	17	20:45	1	8	1	7	2
09:00	2	14			16	21:00	0	4			4
09:15	7	9			16	21:15	0	6			6
09:30	5	5			10	21:30	1	4			5
09:45	2	16	7	35	9	21:45	1	2	0	14	1
10:00	7	9			16	22:00	1	1			2
10:15	6	3			9	22:15	1	4			5
10:30	5	7			12	22:30	1	1			2
10:45	6	24	4	23	10	22:45	0	3	0	6	0
11:00	7	12			19	23:00	0	0			0
11:15	11	9			20	23:15	1	0			1
11:30	11	8			19	23:30	2	0			2
11:45	8	37	7	36	15	23:45	1	4	0		1
TOTALS	126	159			285	TOTALS	410	226			636
SPLIT %	44.2%	55.8%			30.9%	SPLIT %	64.5%	35.5%			69.1%

DAILY TOTALS					NB	SB	EB	WB	Total
					536	385	0	0	921
AM Peak Hour	11:15	08:30			11:00	PM Peak Hour	16:15	14:45	16:00
AM Pk Volume	39	39			73	PM Pk Volume	114	51	137
Pk Hr Factor	0.886	0.696			0.913	Pk Hr Factor	0.731	0.850	0.815
7 - 9 Volume	35	43	0	0	78	4 - 6 Volume	197	50	247
7 - 9 Peak Hour	07:30	08:00			08:00	4 - 6 Peak Hour	16:15	16:00	16:00
7 - 9 Pk Volume	21	25	0	0	43	4 - 6 Pk Volume	114	26	137
Pk Hr Factor	0.583	0.568	0.000	0.000	0.632	Pk Hr Factor	0.731	0.591	0.000

Attachment 5
Intersection LOS, Counts, AM/PM Peak, Distribution for:
1. El Camino Real at Derby Downs
2. Old El Camino Real at San Dieguito

(12 pages)

Existing Intersection Analysis

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Derby Downs Road	Signalized	7.1	A	6.1	A
2	Old El Camino Real / San Dieguito Road	Unsignalized	32.0	D	33.6	D

Notes:

LOS = Level of Service

Existing Plus Project Intersection Analysis

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Derby Downs Road	Signalized	8.9	A	7.5	A
2	Old El Camino Real / San Dieguito Road	Unsignalized	32.6	D	34.8	D

Notes:

Delay = seconds per vehicle

LOS = Level of Service

Existing and Existing Plus Project Intersection Comparison

#	Intersection	Existing				Existing + Project (Buildout)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Derby Downs Road	7.1	A	6.1	A	8.9	A	1.8	No	7.5	A	1.4	No
2	Old El Camino Real / San Dieguito Road	32	D	33.6	D	32.6	D	0.6	No	34.8	D	1.2	No

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

HCM Signalized Intersection Capacity Analysis
1: El Camino Real & Derby Downs Rd.

Existing AM
01/24/2020

																
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT	WBL	WBR	NBU	NBT	NBR	SBL	SBT	WBL	SBT
Lane Configurations	TT		T	TT		T	TT									
Traffic Volume (vph)	91	4	1	405	31	3	1095									
Future Volume (vph)	91	4	1	405	31	3	1095									
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900									
Total Lost time (s)	4.5		4.5	4.5		4.5	4.5									
Lane Util. Factor	0.97		1.00	0.95		1.00	0.95									
Frt	0.99		1.00	0.99		1.00	1.00									
Flt Protected	0.95		0.95	1.00		0.95	1.00									
Satd. Flow (prot)	3428		1770	3501		1770	3539									
Flt Permitted	0.95		0.95	1.00		0.95	1.00									
Satd. Flow (perm)	3428		1770	3501		1770	3539									
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92									
Adj. Flow (vph)	99	4	1	440	34	3	1190									
RTOR Reduction (vph)	4	0	0	6	0	0	0									
Lane Group Flow (vph)	99	0	1	468	0	3	1190									
Turn Type	Prot		Prot	NA		Prot	NA									
Protected Phases	8		5	2		1	6									
Permitted Phases																
Actuated Green, G (s)	5.6		1.0	32.8		1.0	32.8									
Effective Green, g (s)	5.6		1.0	32.8		1.0	32.8									
Actuated g/C Ratio	0.11		0.02	0.62		0.02	0.62									
Clearance Time (s)	4.5		4.5	4.5		4.5	4.5									
Vehicle Extension (s)	3.0		3.0	3.0		3.0	3.0									
Lane Grp Cap (vph)	362		33	2170		33	2194									
v/s Ratio Prot	c0.03		0.00	0.13		c0.00	c0.34									
v/s Ratio Perm																
v/c Ratio	0.27		0.03	0.22		0.09	0.54									
Uniform Delay, d1	21.8		25.5	4.4		25.5	5.8									
Progression Factor	1.00		1.00	1.00		1.00	1.00									
Incremental Delay, d2	0.4		0.4	0.2		1.2	1.0									
Delay (s)	22.2		25.8	4.6		26.7	6.7									
Level of Service	C		C	A		C	A									
Approach Delay (s)	22.2			4.7			6.8									
Approach LOS	C			A			A									
Intersection Summary																
HCM 2000 Control Delay			7.1		HCM 2000 Level of Service		A									
HCM 2000 Volume to Capacity ratio			0.49													
Actuated Cycle Length (s)			52.9		Sum of lost time (s)		13.5									
Intersection Capacity Utilization			41.9%		ICU Level of Service		A									
Analysis Period (min)			15													

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	402	13	5	1045	13	5
Future Vol, veh/h	402	13	5	1045	13	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	437	14	5	1136	14	5

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	451
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1109
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1109
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	32
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	153	-	-	1109	-
HCM Lane V/C Ratio	0.128	-	-	0.005	-
HCM Control Delay (s)	32	-	-	8.3	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

HCM Signalized Intersection Capacity Analysis
1: El Camino Real & Derby Downs Rd.

Existing PM
01/24/2020

							
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	⇐⇐		⇐	⇐⇐		⇐	⇐⇐
Traffic Volume (vph)	51	8	2	1281	133	5	473
Future Volume (vph)	51	8	2	1281	133	5	473
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5		4.5	4.5
Lane Util. Factor	0.97		1.00	0.95		1.00	0.95
Frt	0.98		1.00	0.99		1.00	1.00
Flt Protected	0.96		0.95	1.00		0.95	1.00
Satd. Flow (prot)	3392		1770	3489		1770	3539
Flt Permitted	0.96		0.95	1.00		0.95	1.00
Satd. Flow (perm)	3392		1770	3489		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	9	2	1392	145	5	514
RTOR Reduction (vph)	8	0	0	6	0	0	0
Lane Group Flow (vph)	56	0	2	1531	0	5	514
Turn Type	Prot		Prot	NA		Prot	NA
Protected Phases	8		5	2		1	6
Permitted Phases							
Actuated Green, G (s)	4.0		1.0	44.8		1.0	44.8
Effective Green, g (s)	4.0		1.0	44.8		1.0	44.8
Actuated g/C Ratio	0.06		0.02	0.71		0.02	0.71
Clearance Time (s)	4.5		4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	214		27	2469		27	2504
v/s Ratio Prot	c0.02		0.00	c0.44		c0.00	0.15
v/s Ratio Perm							
v/c Ratio	0.26		0.07	0.62		0.19	0.21
Uniform Delay, d1	28.2		30.7	4.8		30.7	3.2
Progression Factor	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	0.6		1.2	1.2		3.3	0.2
Delay (s)	28.9		31.9	6.0		34.1	3.3
Level of Service	C		C	A		C	A
Approach Delay (s)	28.9			6.0			3.6
Approach LOS	C			A			A
Intersection Summary							
HCM 2000 Control Delay			6.1		HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.58				
Actuated Cycle Length (s)			63.3		Sum of lost time (s)		13.5
Intersection Capacity Utilization			51.3%		ICU Level of Service		A
Analysis Period (min)			15				
c Critical Lane Group							

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	845	14	11	420	38	52
Future Vol, veh/h	845	14	11	420	38	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	918	15	12	457	41	57

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	933	0	1399 918
Stage 1	-	-	-	-	918 -
Stage 2	-	-	-	-	481 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	734	-	155 329
Stage 1	-	-	-	-	389 -
Stage 2	-	-	-	-	622 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	734	-	152 329
Mov Cap-2 Maneuver	-	-	-	-	152 -
Stage 1	-	-	-	-	380 -
Stage 2	-	-	-	-	622 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	33.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	221	-	-	734	-
HCM Lane V/C Ratio	0.443	-	-	0.016	-
HCM Control Delay (s)	33.6	-	-	10	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	2.1	-	-	0.1	-

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Derby Downs Rd.

Existing + Project AM
01/24/2020

																
Movement	WBL	WBR	NBL	NBR	NBL	NBR	SBL	SBT	SBL	SBT	SBL	SBT	SBL	SBT	SBL	SBT
Lane Configurations	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT
Traffic Volume (vph)	91	93	1	405	32	3	1095									
Future Volume (vph)	91	93	1	405	32	3	1095									
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900								
Total Lost time (s)	4.5		4.5	4.5			4.5	4.5								
Lane Util. Factor	0.97		1.00	0.95			1.00	0.95								
Frt	0.92		1.00	0.99			1.00	1.00								
Flt Protected	0.98		0.95	1.00			0.95	1.00								
Satd. Flow (prot)	3259		1770	3500			1770	3539								
Flt Permitted	0.98		0.95	1.00			0.95	1.00								
Satd. Flow (perm)	3259		1770	3500			1770	3539								
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92								
Adj. Flow (vph)	99	101	1	440	35	3	1190									
RTOR Reduction (vph)	87	0	0	7	0	0	0	0								
Lane Group Flow (vph)	113	0	1	468	0	3	1190									
Turn Type	Prot		Prot	NA			Prot	NA								
Protected Phases	8		5	2			1	6								
Permitted Phases																
Actuated Green, G (s)	7.0		0.9	27.6			0.9	27.6								
Effective Green, g (s)	7.0		0.9	27.6			0.9	27.6								
Actuated g/C Ratio	0.14		0.02	0.56			0.02	0.56								
Clearance Time (s)	4.5		4.5	4.5			4.5	4.5								
Vehicle Extension (s)	3.0		3.0	3.0			3.0	3.0								
Lane Grp Cap (vph)	465		32	1971			32	1993								
v/s Ratio Prot	c0.03		0.00	0.13			c0.00	c0.34								
v/s Ratio Perm																
v/c Ratio	0.24		0.03	0.24			0.09	0.60								
Uniform Delay, d1	18.6		23.6	5.4			23.6	7.0								
Progression Factor	1.00		1.00	1.00			1.00	1.00								
Incremental Delay, d2	0.3		0.4	0.3			1.3	1.3								
Delay (s)	18.9		24.0	5.7			24.9	8.4								
Level of Service	B		C	A			C	A								
Approach Delay (s)	18.9			5.7				8.4								
Approach LOS	B			A				A								
Intersection Summary																
HCM 2000 Control Delay			8.9				HCM 2000 Level of Service								A	
HCM 2000 Volume to Capacity ratio			0.51													
Actuated Cycle Length (s)			49.0				Sum of lost time (s)								13.5	
Intersection Capacity Utilization			43.3%				ICU Level of Service								A	
Analysis Period (min)			15													
c Critical Lane Group																

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	402	15	5	1045	14	5
Future Vol, veh/h	402	15	5	1045	14	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	437	16	5	1136	15	5

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	453
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1108
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1108
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	32.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	151	-	-	1108	-
HCM Lane V/C Ratio	0.137	-	-	0.005	-
HCM Control Delay (s)	32.6	-	-	8.3	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

HCM Signalized Intersection Capacity Analysis
1: El Camino Real & Derby Downs Rd.

Existing Plus Project PM
01/24/2020

																
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT									
Lane Configurations																
Traffic Volume (vph)	51	53	2	1281	138	5	473									
Future Volume (vph)	51	53	2	1281	138	5	473									
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900									
Total Lost time (s)	4.5		4.5	4.5		4.5	4.5									
Lane Util. Factor	0.97		1.00	0.95		1.00	0.95									
Frt	0.92		1.00	0.99		1.00	1.00									
Flt Protected	0.98		0.95	1.00		0.95	1.00									
Satd. Flow (prot)	3256		1770	3488		1770	3539									
Flt Permitted	0.98		0.95	1.00		0.95	1.00									
Satd. Flow (perm)	3256		1770	3488		1770	3539									
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92									
Adj. Flow (vph)	55	58	2	1392	150	5	514									
RTOR Reduction (vph)	53	0	0	7	0	0	0									
Lane Group Flow (vph)	60	0	2	1535	0	5	514									
Turn Type	Prot		Prot	NA		Prot	NA									
Protected Phases	8		5	2		1	6									
Permitted Phases																
Actuated Green, G (s)	5.4		1.0	41.8		1.0	41.8									
Effective Green, g (s)	5.4		1.0	41.8		1.0	41.8									
Actuated g/C Ratio	0.09		0.02	0.68		0.02	0.68									
Clearance Time (s)	4.5		4.5	4.5		4.5	4.5									
Vehicle Extension (s)	3.0		3.0	3.0		3.0	3.0									
Lane Grp Cap (vph)	284		28	2363		28	2397									
v/s Ratio Prot	c0.02		0.00	c0.44		c0.00	0.15									
v/s Ratio Perm																
v/c Ratio	0.21		0.07	0.65		0.18	0.21									
Uniform Delay, d1	26.2		29.9	5.7		29.9	3.8									
Progression Factor	1.00		1.00	1.00		1.00	1.00									
Incremental Delay, d2	0.4		1.1	1.4		3.0	0.2									
Delay (s)	26.5		31.0	7.1		33.0	4.0									
Level of Service	C		C	A		C	A									
Approach Delay (s)	26.5			7.2			4.2									
Approach LOS	C			A			A									
Intersection Summary																
HCM 2000 Control Delay			7.5		HCM 2000 Level of Service		A									
HCM 2000 Volume to Capacity ratio			0.59													
Actuated Cycle Length (s)			61.7		Sum of lost time (s)		13.5									
Intersection Capacity Utilization			51.5%		ICU Level of Service		A									
Analysis Period (min)			15													

c Critical Lane Group

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	845	15	11	420	40	52
Future Vol, veh/h	845	15	11	420	40	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	918	16	12	457	43	57

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	934
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	733
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	733
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	34.8
HCM LOS			D

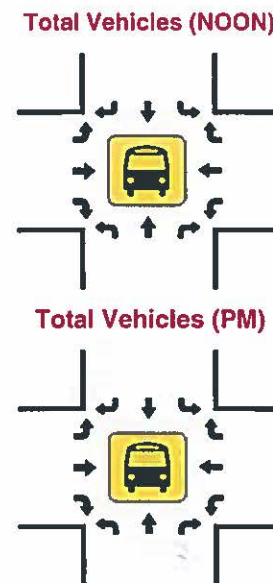
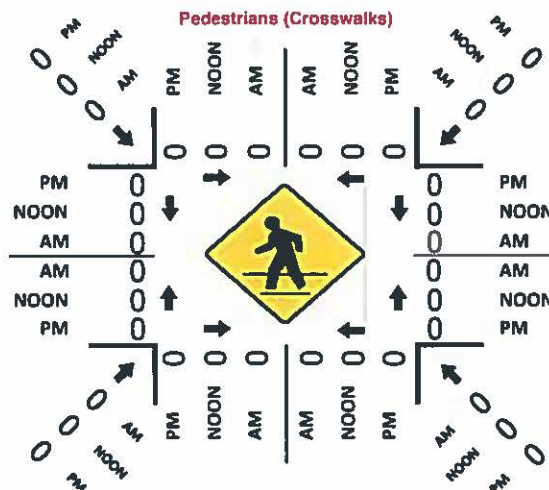
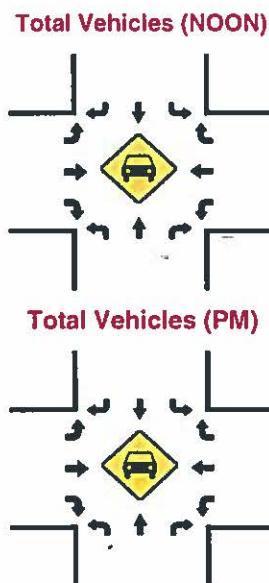
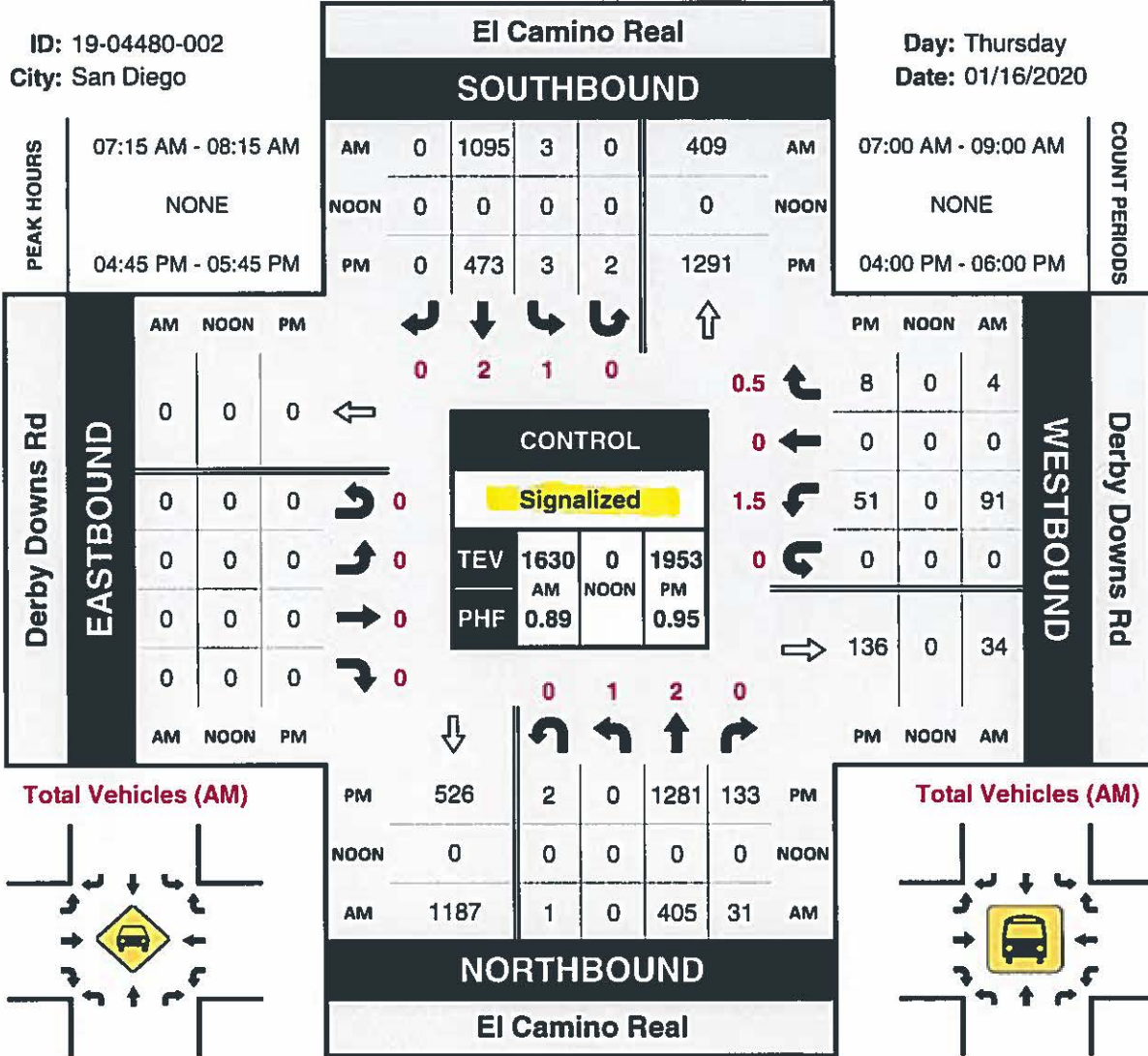
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	218	-	-	733	-
HCM Lane V/C Ratio	0.459	-	-	0.016	-
HCM Control Delay (s)	34.8	-	-	10	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	2.2	-	-	0.1	-

El Camino Real & Derby Downs Rd

Peak Hour Turning Movement Count

ID: 19-04480-002
City: San Diego

Day: Thursday
Date: 01/16/2020



Old El Camino Real & San Dieguito Rd

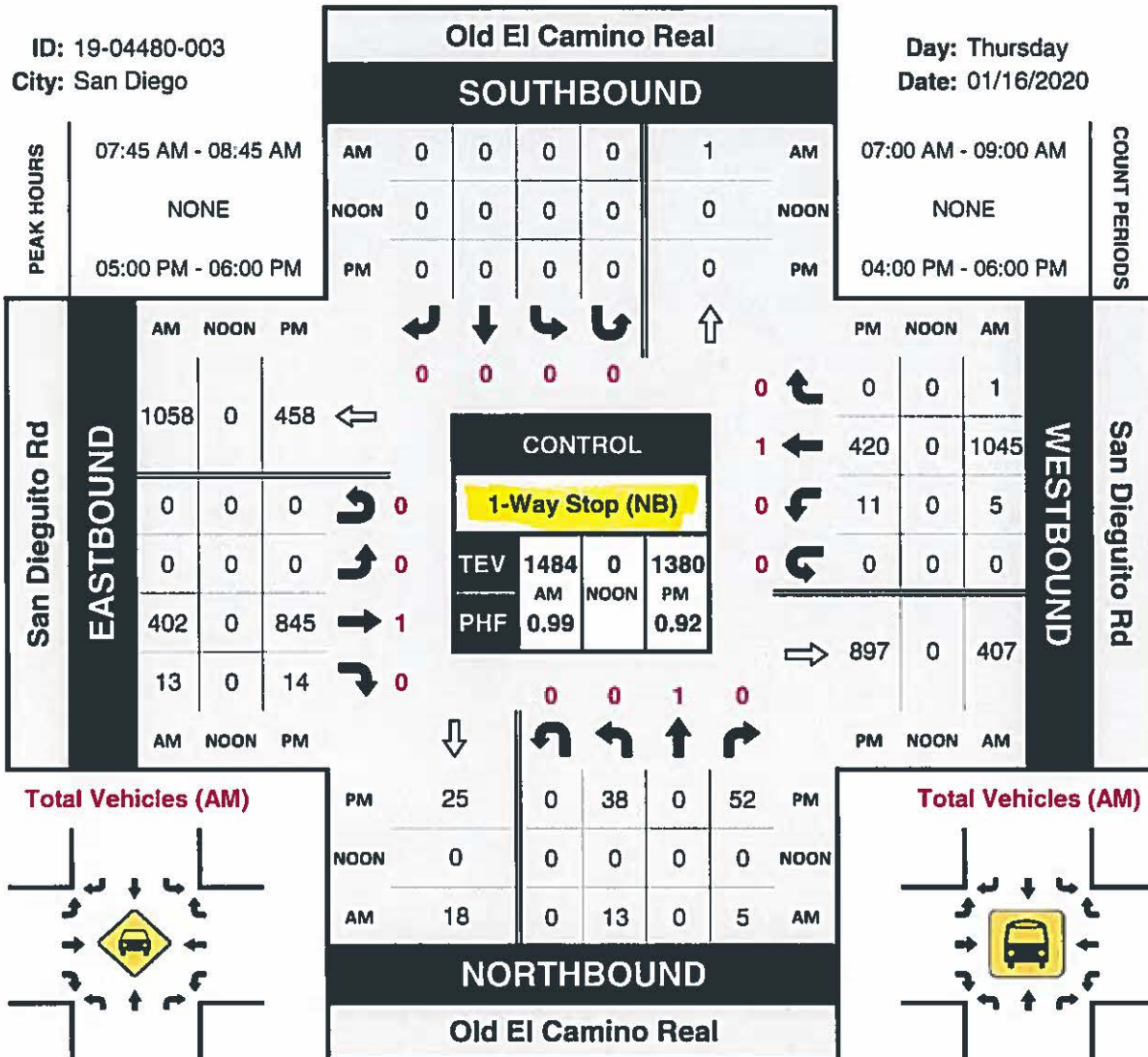
Peak Hour Turning Movement Count

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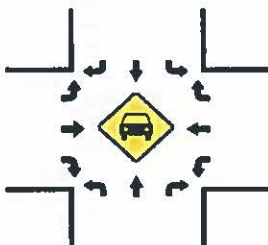
City: San Diego

Day: Thursday

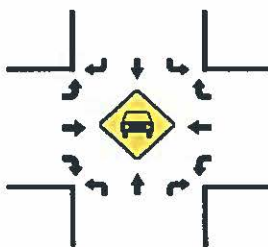
Date: 01/16/2020



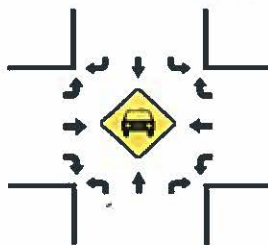
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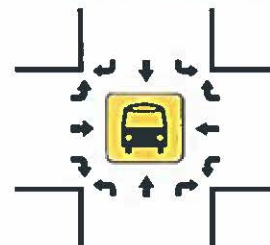
Total Vehicles (NOON)



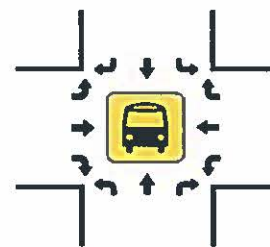
Total Vehicles (PM)



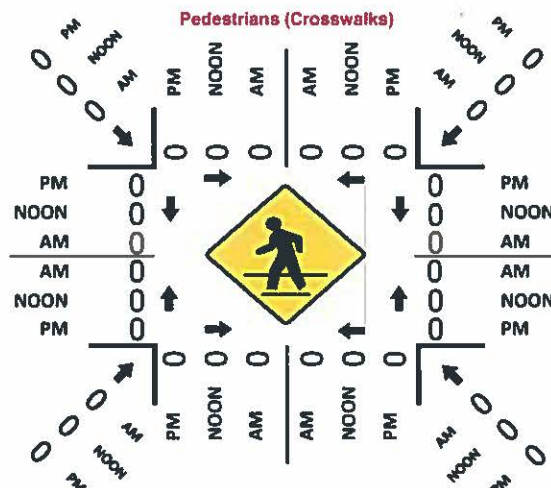
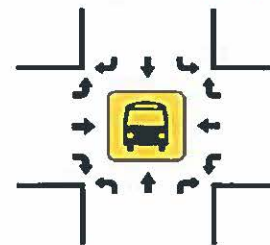
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



Traffic Distribution

