

Terry O. Brown P.E.

Oxbow Town Center Apartments
(St Joseph's Dr. / Coors Blvd.)

Traffic Impact Study

June 28, 2012

DRAFT



Presented to:

City of Albuquerque Public Works Department
New Mexico Department of Transportation, Dist 3

Prepared for:

Skip Grodahl
GSL Properties
2164 SW Park Place
Portland, OR 97205-1125



Terry O. Brown P.E.
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Oxbow Town Center

FAMILY AND SENIOR HOUSING



7601 JEFFERSON NE, SUITE 100 | ALBUQUERQUE, NM 87109 | PHONE: 505.761.5

Friday, June 29, 2012

Kristal D. Metro, P.E.
Transportation Development Section, Planning Dept.
City of Albuquerque
600 2nd St. NW
Albuquerque, NM 87102

Re: Oxbow Town Center Apartments (St. Joseph's Dr. / Coors Blvd.)

Dear Kristal:

Attached are two (2) copies of the DRAFT Traffic Impact Study for the referenced land development project for your review and comment.

Please call me if you have questions.

Best Regards,



Terry O. Brown, P.E.

attachments as noted

cc: Tony J. Loyd, Impact Fee Administrator
Melora Banker, GSL Properties w/one copy of report
Will Gleason, DPS Architects w/one copy of report
Scott Eddings, Huitt-Zollars, Inc. w/one copy of report
Antonio Jaramillo, NM DOT w/one copy of report



Wednesday, August 1, 2012

Kristal D. Metro, P.E.
Transportation Development Section, Planning Dept.
City of Albuquerque
600 2nd St. NW
Albuquerque, NM 87102

Re: Oxbow Town Center Apartments (St. Joseph's Dr. / Coors Blvd.)

Dear Kristal:

Attached is a supplemental to the Traffic Impact Study for the referenced land development project for your review and comment. The traffic count for intersection #2 – St Joseph's Dr. / Coors Blvd. was done when school was on break. This supplemental includes a new analysis accounting for school traffic.

Please call me if you have questions.

Best Regards,



Terry O. Brown, P.E.

attachments as noted

cc: Tony J. Loyd, Impact Fee Administrator
Antonio Jaramillo, NM DOT w/one copy of report

Intersection: 2 - ST. JOSEPH'S DR / COORS BLVD

2013 AM Peak Hour BUILD

2013 PM Peak Hour BUILD

		(EXIST. GEOM.)						(EXIST. GEOM.)			
		NO BUILD		BUILD				NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay			Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	2	D - 52.9	2	D - 50.9	L	2	F - 111	2	F - 110	
	T	1	E - 68.4	1	E - 64.6	T	1	E - 65.3	1	E - 63.6	
	R	1	D - 42.4	1	D - 45.3	R	1	D - 38.2	1	D - 35.9	
WB	L	1	E - 58.7	1	E - 58.7	L	1	D - 43.5	1	D - 43.5	
	T	2	D - 45.5	2	D - 45.5	T	2	D - 46.4	2	D - 46.4	
	R	>	D - 45.5	>	D - 45.5	R	>	D - 46.4	>	D - 46.4	
NB	L	1	C - 22.1	1	C - 26.2	L	1	C - 21.0	1	D - 38.1	
	T	3	C - 22.1	3	C - 20.8	T	3	C - 30.5	3	C - 29.9	
	R	1	C - 30.2	1	A - 9.8	R	1	A - 9.8	1	A - 9.8	
SB	L	1	C - 34.4	1	D - 39.4	L	1	D - 51.4	1	D - 48.3	
	T	3	B - 15.1	3	B - 16.3	T	3	A - 7.1	3	A - 7.4	
	R	1	A - 0.2	1	A - 0.0	R	1	A - 0.1	1	A - 1.1	
Intersection:		C - 25.5		C - 25.0				C - 25.3		C - 25.7	

Note: ">" designates a shared right or left turn lane next to a thru lane.

Signalized

Signalized

Signalized

Signalized

Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
Projected Turning Movements Worksheet
St Joseph's Dr / Coors Blvd NW

INTERSECTION :E-W Street: **St Joseph's Dr** (2)N-S Street: **Coors Blvd NW**

Year of Existing Counts 2012

Implementation Year 2013

Growth Rates 0.50% 0.50% 0.50% 0.50%

	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	197	162	94	148	12	86	28	1,011	260	251	2,254	76
Background Traffic Growth	1	1	0	1	0	0	0	5	1	1	11	0
Subtotal (NO BUILD - A.M.)	198	163	94	149	12	86	28	1,016	261	252	2,265	76
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.40%	0.00%	54.86%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.40%	54.86%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	55	0	0	0	15	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	198	163	149	149	12	86	43	1,016	261	252	2,265	76

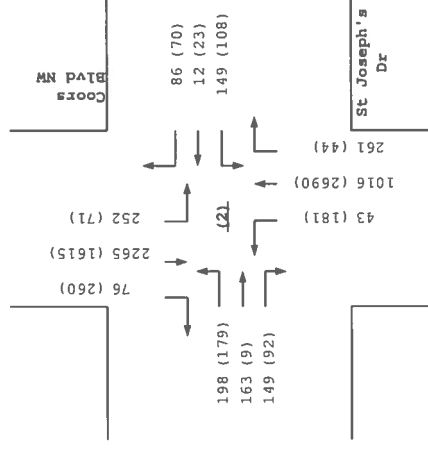
	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	178	9	61	107	23	70	123	2,677	44	71	1,607	259
Background Traffic Growth	1	0	0	1	0	0	1	13	0	0	8	1
Subtotal (NO BUILD - P.M.)	179	9	61	108	23	70	124	2,690	44	71	1,615	260
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.40%	0.00%	54.86%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.40%	54.86%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	31	0	0	0	57	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	179	9	92	108	23	70	181	2,690	44	71	1,615	260

Number of Residential Trips Generated

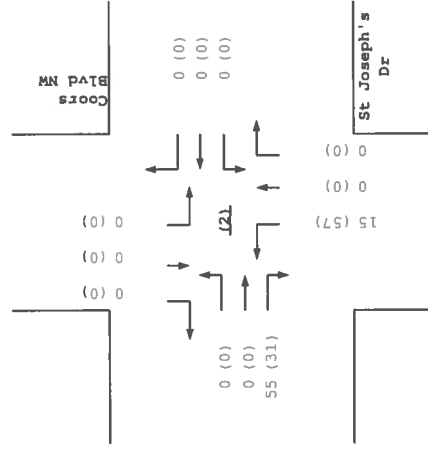
Entering	28	100	A.M.	100% Residential Development
Exiting	104	57	P.M.	

	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2012 AM Peak Hr. Volumes	197	162	94	148	12	86	28	1,011	260	251	2,254	76
2012 PM Peak Hr. Volumes	178	9	61	107	23	70	123	2,677	44	71	1,607	259

2013
BUILD

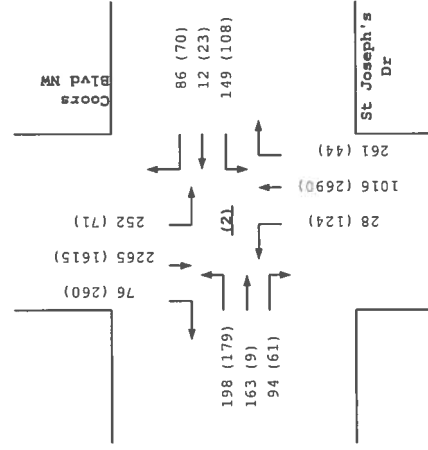


Trips



St Joseph's Dr / Coors Blvd NW

2013
NO BUILD



Timings 2: Coors Blvd & St Joseph's Dr

Terry O. Brown, P.E.
7/28/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	EBR
Lane Configurations	198	163	94	149	12	28	1016	261	252	2265	76
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turn Type	NA	pm+ov	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	2	6	6	7
Permitted Phases	4	8	5	3	8	5	2	2	6	6	7
Detector Phase	7	4	5	3	8	5	2	2	6	6	7
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0
Minimum Split (s)	18.0	23.0	10.0	16.0	21.0	10.0	48.0	48.0	33.0	71.0	18.0
Total Split (%)	15.0%	19.2%	8.3%	13.3%	17.5%	8.3%	40.0%	40.0%	27.5%	59.2%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead/Lag Optimize?											
Recall Mode	Min	Min	Min	Max	Min	Min	C-Min	C-Min	Min	C-Min	Min
Act Eff Green (s)	12.5	18.1	120.0	16.5	59.3	54.3	54.3	54.3	76.0	66.0	83.5
Act Eff Green Ratio	0.10	0.15	1.00	1.00	0.14	0.49	0.45	0.45	0.63	0.55	0.70
Actuated g/c Ratio	0.74	0.78	0.08	0.27	0.25	0.24	0.51	0.34	0.72	0.89	0.07
Control Delay	57.8	75.2	0.1	0.9	12.5	15.4	23.1	5.2	36.4	15.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.8	75.2	0.1	0.9	12.5	15.4	23.1	5.2	36.4	15.4	0.1
LOS	E	E	A	A	B	B	C	A	D	B	A
Approach Delay	52.1			5.5		19.3				17.0	
Approach LOS	D			A		B				B	
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 120											
Offset: 44 (37%), Referenced to phase 2 NBTL and 6 SBTL Start of Green											
Natural Cycle: 90											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.89											
Intersection Signal Delay: 21.0											
Intersection Capacity Utilization 81.4%											
Analysis Period (min) 15											
Splits and Phases: 2: Coors Blvd & St Joseph's Dr											

HCM Signalized Intersection Capacity Analysis 2: Coors Blvd & St Joseph's Dr

Terry O. Brown, P.E.
7/28/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	198	163	94	149	12	28	1016	261	252	2265	76
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	0.97	1.00	1.00	1.00	0.95	1.00	0.91	1.00	1.00	0.91	1.00
Lane Util. Factor	1.00	1.00	0.85	1.00	0.87	1.00	0.85	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3043	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.34	1.00	0.07	1.00	1.00	0.15	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	635	3043	136	5036	1568	278	5036	1568
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.87	0.87	0.87	0.92	0.92
Adj. Flow (vph)	264	217	125	199	16	115	32	1168	300	274	2462
RTOR Reduction (vph)	0	0	0	0	0	99	0	0	164	0	29
Lane Group Flow (vph)	264	217	125	199	32	0	32	1168	136	274	2462
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	2	6	6	7
Permitted Phases											
Actuated Green, G (s)	12.5	18.1	23.1	27.4	16.5	59.3	54.3	54.3	76.0	66.0	78.5
Effective Green, g (s)	12.5	18.1	23.1	27.4	16.5	59.3	54.3	54.3	76.0	66.0	78.5
Actuated g/c Ratio	0.10	0.15	0.19	0.23	0.14	0.49	0.45	0.45	0.63	0.55	0.65
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	354	278	367	246	418	134	2278	709	381	2769	1091
v/c Ratio Prot	0.08	0.12	0.01	0.07	0.01	0.01	0.23	0.09	0.36	0.49	0.01
v/c Ratio Perm											
v/c Ratio	0.75	0.78	0.34	0.81	0.08	0.24	0.51	0.19	0.72	0.89	0.03
Uniform Delay d1	52.2	49.0	41.9	41.2	45.1	22.0	23.4	19.7	14.5	23.8	7.4
Progression Factor	0.86	1.13	1.00	1.00	1.00	0.97	0.91	1.50	2.07	0.49	0.02
Incremental Delay d2	8.1	12.9	0.5	17.5	0.4	0.9	0.8	0.6	4.5	3.4	0.0
Delay (s)	52.9	68.4	42.4	58.7	45.5	22.1	22.1	30.2	34.4	15.1	0.2
Level of Service	D	E	D	E	D	C	C	C	C	B	A
Approach Delay (s)	56.3			53.4		23.7				16.5	
Approach LOS	E			D		C				B	
Intersection Summary											
HCM 2000 Control Delay											
HCM 2000 Volume to Capacity ratio											
Actuated Cycle Length (s)											
Intersection Capacity Utilization											
Analysis Period (min)											
c Critical Lane Group											

2013 AM Peak NOBUILD Conditions
D:\ATOB\PROJECTS_2012\Oxbow_Apartments\Supplemental_07_28_12\Synchro_07_28_2012\2013ANX.syn

2013 AM Peak NOBUILD Conditions
D:\ATOB\PROJECTS_2012\Oxbow_Apartments\Supplemental_07_28_12\Synchro_07_28_2012\2013ANX.syn

Existing Geometry

Timings 2: Coors Blvd & St Joseph's Dr

Terry O. Brown, P.E.
7/28/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	198	163	149	12	43	1016	261	252	2265	76	
Volume (vph)	198	163	149	12	43	1016	261	252	2265	76	
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	2	6	6	7
Permitted Phases	7	4	5	3	8	5	2	2	6	6	7
Detector Phase	7	4	5	3	8	5	2	2	6	6	7
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0
Minimum Spk (s)	18.0	23.0	10.0	16.0	21.0	10.0	48.0	48.0	33.0	71.0	18.0
Total Split (%)	15.0%	19.2%	8.3%	13.3%	17.5%	8.3%	40.0%	40.0%	27.5%	59.2%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Max	Min	Min	C-Min	C-Min	Min	C-Min	Min
Act Eff Green (s)	12.5	18.1	120.0	120.0	16.5	59.3	54.3	54.3	76.0	66.0	83.5
Act Eff Green Ratio	0.40	0.15	1.00	1.00	0.14	0.49	0.45	0.45	0.63	0.55	0.70
v/c Ratio	0.74	0.78	0.13	0.27	0.25	0.37	0.51	0.34	0.72	0.89	0.07
Control Delay	55.9	71.5	0.2	0.9	12.5	22.9	21.7	2.3	41.2	16.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	71.5	0.2	0.9	12.5	22.9	21.7	2.3	41.2	16.7	0.1
LOS	E	E	A	A	B	C	C	A	D	B	A
Approach Delay	44.6				5.5		17.9		18.6		
Approach LOS	D				A		B		B		
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 120											
Offset: 36 (30%), Referenced to phase 2 NBTL and 6 SBTL Start of Green											
Natural Cycle: 90											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.89											
Intersection Signal Delay: 20.9											
Intersection Capacity Utilization 81.4%											
Analysis Period (min) 15											
Splits and Phases: 2: Coors Blvd & St Joseph's Dr											

HCM Signalized Intersection Capacity Analysis 2: Coors Blvd & St Joseph's Dr

Terry O. Brown, P.E.
7/28/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	198	163	149	12	43	1016	261	252	2265	76	
Volume (vph)	198	163	149	12	43	1016	261	252	2265	76	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	0.91	1.00	1.00	0.91	1.00
Flt	1.00	1.00	0.85	1.00	0.87	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd Flow (prot)	3400	1845	1568	1752	3043	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.34	1.00	0.07	1.00	1.00	0.15	1.00	1.00
Satd Flow (perm)	3400	1845	1568	635	3043	136	5036	1568	278	5036	1568
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	264	217	199	199	16	115	49	1168	300	274	2462
RTOR Reduction (vph)	0	0	0	0	0	99	0	0	164	0	29
Lane Group Flow (vph)	264	217	199	199	32	0	49	1168	136	274	2462
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	2	6	6	7
Permitted Phases	7	4	5	3	8	5	2	2	6	6	7
Actuated Green, G (s)	12.5	18.1	23.1	27.4	16.5	59.3	54.3	54.3	76.0	66.0	78.5
Effective Green, g (s)	12.5	18.1	23.1	27.4	16.5	59.3	54.3	54.3	76.0	66.0	78.5
Actuated g/C Ratio	0.10	0.15	0.19	0.23	0.14	0.49	0.45	0.45	0.63	0.55	0.65
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	354	278	367	246	418	134	2278	709	381	2769	1091
v/s Ratio Prot	0.06	0.12	0.02	0.07	0.01	0.02	0.23	0.09	0.10	0.49	0.01
v/s Ratio Perm	0.75	0.78	0.54	0.81	0.08	0.37	0.51	0.19	0.72	0.89	0.05
Uniform Delay d1	52.2	49.0	43.7	41.2	45.1	22.4	23.4	19.7	14.5	23.8	7.4
Progression Factor	0.82	1.05	1.00	1.00	1.00	1.10	0.85	0.47	2.41	0.55	0.00
Incremental Delay d2	8.1	13.0	1.6	17.5	0.4	1.6	0.8	0.6	4.5	3.4	0.0
Delay (s)	50.9	64.6	45.3	58.7	45.5	26.2	20.8	9.8	39.4	16.3	0.0
Level of Service	D	E	D	E	D	C	C	A	D	B	A
Approach Delay (s)	53.6				53.4		18.8		18.1		
Approach LOS	D				D		B		B		
Intersection Summary											
HCM 2000 Control Delay											
HCM 2000 Volume to Capacity ratio											
Actuated Cycle Length (s)											
Intersection Capacity Utilization											
Analysis Period (min)											
c Critical Lane Group											

Timings 2: Coors Blvd & St Joseph's Dr

Terry O. Brown, P.E.
7/28/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	179	9	61	108	23	124	2690	44	71	1615	260
Volume (vph)	179	9	61	108	23	124	2690	44	71	1615	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	0.91	1.00	1.00	0.91	1.00
Flt Protected	1.00	1.00	0.85	1.00	0.89	1.00	1.00	0.85	1.00	1.00	0.85
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3111	1752	5036	1568	1752	5036	1568
Fit Permitted	0.95	1.00	1.00	0.75	1.00	0.08	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1385	3111	147	5036	1568	110	5036	1568
Peak-hour factor, PHF	0.94	0.94	0.94	0.83	0.83	0.83	0.91	0.91	0.91	0.95	0.95
Adj. Flow (vph)	190	10	65	130	28	84	136	2956	48	75	1700
RTOR Reduction (vph)	0	0	0	0	0	62	0	0	19	0	105
Lane Group Flow (vph)	190	10	65	130	50	0	136	2956	29	75	1700
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	1	6	7	6
Permitted Phases	7	4	5	3	8	5	2	1	6	7	6
Actuated Green, G (s)	7.0	16.0	26.1	23.0	16.0	82.0	72.0	71.9	66.9	73.9	73.9
Effective Green, g (s)	7.0	16.0	26.1	23.0	16.0	82.0	72.0	71.9	66.9	73.9	73.9
Actuated g/C Ratio	0.06	0.13	0.22	0.19	0.13	0.68	0.60	0.60	0.60	0.56	0.62
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	246	405	286	414	235	3021	940	134	2807	1030
v/s Ratio Prot	0.06	0.01	0.01	0.03	0.02	0.05	0.59	0.02	0.34	0.01	0.10
v/s Ratio Perm	0.96	0.04	0.16	0.45	0.12	0.58	0.90	0.03	0.56	0.61	0.16
Uniform Delay, d1	56.4	45.3	36.1	42.4	45.8	14.0	23.2	9.8	27.1	17.7	9.8
Progression Factor	1.07	1.44	1.00	1.00	1.00	1.32	0.90	1.00	1.75	0.35	0.00
Incremental Delay, d2	50.6	0.1	0.2	1.1	0.6	2.4	9.5	0.0	4.1	0.8	0.1
Delay (s)	110.9	65.3	36.2	43.5	46.4	21.0	30.5	9.8	51.4	7.1	0.1
Level of Service	F	E	D	D	D	C	C	A	D	A	A
Approach Delay (s)	91.4	F				44.9	D			7.7	
Approach LOS	F					D				A	
Intersection Summary											
HCM 2000 Control Delay	25.3										
HCM 2000 Volume to Capacity ratio	0.97										
Actuated Cycle Length (s)	120.0										
Intersection Capacity Utilization	81.3%										
Analysis Period (min)	15										
c Critical Lane Group											

2013 PM Peak NOBUILD Conditions
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Existing Geometry

HCM Signalized Intersection Capacity Analysis 2: Coors Blvd & St Joseph's Dr

Terry O. Brown, P.E.
7/28/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	179	9	61	108	23	124	2690	44	71	1615	260
Volume (vph)	179	9	61	108	23	124	2690	44	71	1615	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	0.91	1.00	1.00	0.91	1.00
Flt Protected	1.00	1.00	0.85	1.00	0.89	1.00	1.00	0.85	1.00	1.00	0.85
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3111	1752	5036	1568	1752	5036	1568
Fit Permitted	0.95	1.00	1.00	0.75	1.00	0.08	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1385	3111	147	5036	1568	110	5036	1568
Peak-hour factor, PHF	0.94	0.94	0.94	0.83	0.83	0.83	0.91	0.91	0.91	0.95	0.95
Adj. Flow (vph)	190	10	65	130	28	84	136	2956	48	75	1700
RTOR Reduction (vph)	0	0	0	0	0	62	0	0	19	0	105
Lane Group Flow (vph)	190	10	65	130	50	0	136	2956	29	75	1700
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	1	6	7	6
Permitted Phases	7	4	5	3	8	5	2	1	6	7	6
Actuated Green, G (s)	7.0	16.0	26.1	23.0	16.0	82.0	72.0	71.9	66.9	73.9	73.9
Effective Green, g (s)	7.0	16.0	26.1	23.0	16.0	82.0	72.0	71.9	66.9	73.9	73.9
Actuated g/C Ratio	0.06	0.13	0.22	0.19	0.13	0.68	0.60	0.60	0.60	0.56	0.62
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	246	405	286	414	235	3021	940	134	2807	1030
v/s Ratio Prot	0.06	0.01	0.01	0.03	0.02	0.05	0.59	0.02	0.34	0.01	0.10
v/s Ratio Perm	0.96	0.04	0.16	0.45	0.12	0.58	0.90	0.03	0.56	0.61	0.16
Uniform Delay, d1	56.4	45.3	36.1	42.4	45.8	14.0	23.2	9.8	27.1	17.7	9.8
Progression Factor	1.07	1.44	1.00	1.00	1.00	1.32	0.90	1.00	1.75	0.35	0.00
Incremental Delay, d2	50.6	0.1	0.2	1.1	0.6	2.4	9.5	0.0	4.1	0.8	0.1
Delay (s)	110.9	65.3	36.2	43.5	46.4	21.0	30.5	9.8	51.4	7.1	0.1
Level of Service	F	E	D	D	D	C	C	A	D	A	A
Approach Delay (s)	91.4	F				44.9	D			7.7	
Approach LOS	F					D				A	
Intersection Summary											
HCM 2000 Control Delay	25.3										
HCM 2000 Volume to Capacity ratio	0.97										
Actuated Cycle Length (s)	120.0										
Intersection Capacity Utilization	81.3%										
Analysis Period (min)	15										
c Critical Lane Group											

2013 PM Peak NOBUILD Conditions
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Existing Geometry

Timings 2: Coors Blvd & St Joseph's Dr

Terry O. Brown, P.E.
7/28/2012 - Synchro 7

EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
179	9	92	108	23	181	2690	44	71	1615	260
Prot	NA	pm+ov	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+ov
7	4	5	3	8	5	2	2	6	1	6
7	4	5	3	8	5	2	2	1	6	7
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0
12.0	21.0	27.0	12.0	21.0	27.0	77.0	77.0	10.0	60.0	12.0
10.0%	17.5%	22.5%	10.0%	17.5%	22.5%	64.2%	64.2%	8.3%	50.0%	10.0%
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Min	Min	Min	Min	Max	Min	C-Min	C-Min	Min	C-Min	Min
7.0	16.0	120.0	120.0	16.0	81.6	72.0	72.0	68.0	63.0	75.0
0.06	0.13	1.00	1.00	0.13	0.68	0.60	0.60	0.57	0.52	0.62
0.96	0.04	0.06	0.09	0.24	0.71	0.98	0.05	0.56	0.64	0.25
112.7	64.3	0.1	0.1	20.8	36.3	30.4	1.8	42.2	7.6	0.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.7	64.3	0.1	0.1	20.8	36.3	30.4	1.8	42.2	7.6	0.6
F	E	A	A	C	D	C	A	D	A	A
74.1	E	A	A	9.7	30.3	C	C	8.0	A	A
E	E	A	A	A	C	C	C	A	A	A
Intersection Summary										
Cycle Length: 120										
Offset: 37 (31%), Referenced to phase 2 NBTL and 6 SBTL Start of Green										
Natural Cycle: 110										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.98										
Intersection Signal Delay: 23.8										
Intersection Capacity Utilization 81.3%										
Analysis Period (min): 15										
Spills and Phases: 2: Coors Blvd & St Joseph's Dr										
1	2	3	4	5	6	7	8	9	10	11

2013 PM Peak BUILD Conditions
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Existing Geometry

HCM Signalized Intersection Capacity Analysis 2: Coors Blvd & St Joseph's Dr

Terry O. Brown, P.E.
7/28/2012 - Synchro 7

EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
179	9	92	108	23	181	2690	44	71	1615	260
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
0.97	1.00	1.00	1.00	0.95	1.00	0.91	1.00	1.00	0.91	1.00
1.00	1.00	0.85	1.00	0.89	1.00	1.00	0.85	1.00	1.00	0.85
0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
3400	1845	1568	1752	3111	1752	5036	1568	1752	5036	1568
0.95	1.00	1.00	0.75	1.00	0.07	1.00	1.00	0.06	1.00	1.00
3400	1845	1568	1385	3111	134	5036	1568	117	5036	1568
0.94	0.94	0.94	0.83	0.83	0.83	0.91	0.91	0.91	0.95	0.95
190	10	96	130	28	84	199	2556	48	75	1700
0	0	0	0	0	0	0	0	0	0	0
190	10	96	130	50	0	199	2556	29	75	1700
Prot	NA	pm+ov	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+ov
7	4	5	3	8	5	2	2	6	1	6
7	4	5	3	8	5	2	2	6	1	6
7.0	16.0	30.0	23.0	16.0	82.0	72.0	72.0	68.0	63.0	70.0
7.0	16.0	30.0	23.0	16.0	82.0	72.0	72.0	68.0	63.0	70.0
0.06	0.13	0.25	0.19	0.13	0.68	0.60	0.60	0.57	0.52	0.58
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
198	246	457	286	414	280	3021	940	134	2643	980
0.06	0.01	0.03	0.03	0.02	0.08	0.59	0.02	0.34	0.01	0.01
0.96	0.04	0.21	0.45	0.12	0.71	0.98	0.03	0.56	0.64	0.16
56.4	45.3	35.7	42.4	45.8	26.9	23.2	9.8	26.7	20.4	11.5
1.06	1.40	1.00	1.00	1.00	1.21	0.89	1.00	1.66	0.31	0.09
50.9	0.2	0.2	1.1	0.6	5.6	9.3	0.0	4.1	1.0	0.1
110.4	63.6	35.9	43.5	46.4	38.1	29.9	9.8	49.3	7.4	1.1
F	E	D	D	D	D	C	A	D	A	A
84.4	F	D	D	D	44.9	30.1	C	8.0	A	A
Intersection Summary										
HCM 2000 Control Delay										
HCM 2000 Volume to Capacity ratio										
Actual Cycle Length (s)										
Intersection Capacity Utilization										
Analysis Period (min)										
c Critical Lane Group										

2013 PM Peak BUILD Conditions
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Existing Geometry

**Oxbow Town Center Apartments
(St. Josephs Dr. / Coors Blvd.)
TRAFFIC IMPACT STUDY**

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Oxbow Town Center Apartments (St. Josephs Dr. / Coors Blvd.) TRAFFIC IMPACT STUDY

STUDY PURPOSE

This study is being conducted in conjunction with a request for approval of a site development plan for implementation of an apartment complex such as the one shown in the Appendix (Page A-3) of this report. The purpose of this study is to identify the impact of the proposed development on the adjacent transportation system, and to make recommendations to mitigate any significant adverse impact on the adjacent transportation system. This study is being submitted to satisfy the requirements of the City of Albuquerque Transportation Development Section and the New Mexico Department of Transportation, District 3 Office.

STUDY PROCEDURES

A scoping meeting was held with City of Albuquerque Transportation staff members Tony Loyd and Kristal Metro along with Antonio Jaramillo at the New Mexico Department of Transportation, District 3 prior to beginning the study to discuss scope and methodology to be utilized within the proposed Oxbow Town Center Apartments Traffic Impact Study. Specific items included format, intersections to be studied, intersection analysis procedures, existing traffic counts, trip distribution methodology, and implementation year definition.

The basic procedure followed is described as follows:

- 1) Calculate the generated trips for the proposed development consisting of the following described land uses (See Appendix Pages A-6 thru A-8):
 - a. A 150 unit Senior Adult Housing complex
 - b. A 224 unit Apartment complex
- 2) Calculate trip distribution for the newly generated trips by this development. The new residential trips will be distributed based on year 2013 population citywide inversely proportional to the distance of the population center from the new project (See Appendix Pages A-9 thru A-15).
- 3) Determine Trip Assignments for the newly generated trips based on the results of the Trip Distribution Analysis and logical routing to and from the site (See Appendix Pages A-16 thru A-17).
- 4) Acquire recent traffic counts for all intersections to be analyzed in this report (See Appendix Pages A-69 thru A-74).
- 5) Calculate growth rate for the area utilizing a Mid-Region Council of Governments' Traffic Flow Map Data to define area traffic growth rate (See Appendix Pages A-18 thru A-26).
- 6) Determine 2013 NO BUILD Volumes by growing the existing turning movement counts to the year 2013 utilizing the calculated annual historic growth rate for the area (See Appendix Pages A-27 thru A-42).
- 7) Add the trips generated by the development to the 2013 NO BUILD Volumes to obtain 2013 BUILD Volumes for this project (See Appendix Pages A-27 thru A-42).
- 8) Provide signalized and / or unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
1) Sequoia Rd. / Coors Blvd.	Traffic Signal	2013	2013
2) St. Josephs Dr. / Coors Blvd.	Traffic Signal	2013	2013
3) Western Trail / Coors Blvd.	Traffic Signal	2013	2013
4) Sevilla Ave. / Coors Blvd.	Traffic Signal	2013	2013
5) St. Josephs Dr. / Atrisco Rd.	Traffic Signal	2013	2013
6) Western Trail / Quaker Heights	Stop Sign	2013	2013
7) St. Josephs Dr. / Driveway "A"	Stop Sign	N/A	2013

PREVIOUS RELATED TRAFFIC IMPACT STUDIES

There are no trips from previously approved projects to consider for this development.

GENERAL AREA CHARACTERISTICS

The proposed requested site development plan is for a property bounded on the east by Coors Rd., on the west by an existing development, on the south by St Joseph's Dr, and on the north by an existing residential subdivision as shown on the Vicinity Map on Page A-2 of the Appendix of this report. An aerial map of the adjacent transportation system to be considered and analyzed in this study may be found on Page A-1 in the Appendix of this report. The subject tract of land is in a rapidly developing area of Northwest Albuquerque. The surrounding development is a mix of commercial, residential, and office uses. Also, there is a private school to the east of this site.

AREA STREET NETWORK

The impacted adjacent street network targeted for analysis in this study includes the Coors Blvd. corridor from Sequoia Rd north to Sevilla Ave and Atrisco Rd. from St. Josephs Dr. to Western Trail. Also included are the streets fronting the project or running through the project.

Coors Blvd is classified as an Urban Principal Arterial Roadway on the Current Roadway Functional Classification System Map. It is generally a six lane urban facility with raised medians. The posted speed limit along Coors Blvd. in the vicinity of this project is 45 MPH.

Atrisco Rd. is classified as an Urban Collector Street on the Current Roadway Functional Classification System Map. It is generally a two lane urban roadway with left turn lanes at major intersections. The posted speed limit along Atrisco Rd. in the vicinity of this project is 35 MPH.

Western Trail and St. Joseph's Dr. are both classified as Urban Minor Arterial Roadways on the Current Roadway Functional Classification System Map. Both are ultimately planned to be divided four lane paved urban roadway sections. Western Trail is fully improved from Atrisco Rd. to Coors Blvd. as a four lane divided urban roadway. The center of Western Trail is either a center two-way left turn lane or designated left turn lanes near the major

intersections. St. Joseph's Dr. is currently a paved two lane roadway section between Atrisco Rd. and Coors Blvd.

Sevilla Ave. is a Residential Access Road to Andalucia Residential Development. Sevilla Ave. is not classified on the Current Roadway Functional Classification System Map.

Sequoia Rd. is classified as an Urban Collector Street on the Current Roadway Functional Classification System Map.

EXISTING TRAFFIC VOLUMES

2010 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-5 of the Appendix.

Current turning movement volumes obtained during the AM and PM Peak Hours for the following intersections were acquired from recent field counts for the following intersections:

*Sequoia Rd. / Coors Blvd.
St. Joseph's Dr. / Coors Blvd.
Western Trail / Coors Blvd.
Sevilla Ave / Coors Blvd.
St. Joseph's Dr. / Atrisco Rd.
Western Trail / Quaker Heights*

The counts are included in Appendix Pages A-69 thru A-74.

EXISTING TRANSIT SERVICE

This area is serviced by the Coors #155 bus route which provides service approximately every 30 minutes from 6:30 a.m. to 10:00 p.m. 6 days a week & limited service from 10:00 a.m. to 5:00 p.m. on Sunday, and the Westside Rapid Ride bus route which provides hourly service during the AM and PM Peak Hour periods 6 days a week. (See Appendix Pages A-75 thru A-78).

PROPOSED DEVELOPMENT

The proposed conceptual site development plan associated with this project consists of two different land use facilities summarized in the following table:

Land Use Description	Size Proposed
Senior Housing – Attached	150 units
Apartment, Post – 1973	224 units

See the conceptual site development plan on Page A-3 in the Appendix of this report to acquire more detailed information about the proposed development. This site plan is conceptual at this point in time and is subject to some changes as progress takes place in the design process. The plan should, however, provide a reliable basis upon which to analyze the impact of the development on the adjacent transportation system and provide

guidelines for mitigating the impact and establishing access criteria. The conceptual site plan as it is shown in this report proposes two primary access points into the site. One access will be through Quaker Heights through the subdivision to the north. The second access (Driveway 'A') will actually be the intersection of Quaker Heights and St. Joseph's Dr. Quaker Heights will be constructed from its south end at the subdivision to the north through the project to intersect with St. Joseph's Dr.

TRIP GENERATION

Projected trips were calculated from data in the Institute of Transportation Engineers Trip Generation Manual (7th Edition, 2003). Trips for the development were determined based on land uses defined on the Conceptual Site Development Plan on Page A-3 in the Appendix of this report.

The resulting number of trips generated for the proposed development is summarized in the following table:

Oxbow Apartments (Ladera Dr. / Coors Blvd.) **Trip Generation Data (ITE Trip Generation Manual - 8th Edition)**

USE (ITE CODE)	DESCRIPTION	24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.		
		GROSS	ENTER	EXIT	ENTER	EXIT	
Summary Sheet		Units					
Senior Adult Housing - Attached (252)	✓	150.00	522	5	9	12	8
Apartment, Post-1973 (220)	✓	224.00	1,481	23	91	92	49
Subtotal			2,003	28	100	104	57

No adjustments were made for Pass-By Trips.

TRIP DISTRIBUTION

Primary and Diverted Linked Trips:

Residential Land Uses

Primary and diverted linked trips for office / residential development have been distributed proportionally to the 2015 projected population of Subareas area wide. Population data for 2004 and 2030 were taken from the 2030 Socioeconomic Forecasts for Data Analysis Subzones for the MRCOG Region (S-07-01), supplied by the Mid-Region Council of Governments (MRCOG). Population Data was interpolated linearly to obtain 2015 values and adjusted for distance from the proposed new facility. The trip distribution worksheets and associated map of subareas are shown in the Appendix on Pages A-9 thru A-14. The Trip Distribution Map for Residential use can be found in the Appendix on Page A-15.

TRIP ASSIGNMENTS

Trip assignments are first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages are then

applied to the projected trips to determine individual traffic movements. Percentage trip assignment maps are shown in the Appendix on Pages A-16 thru A-17.

BACKGROUND TRAFFIC GROWTH

Background traffic growth rates were considered for the study area that was targeted for analysis based on data from the 2001 through 2010 Traffic Flow maps prepared by the Mid-Region Council of Governments.

Most of the Traffic Flow Data for the years 2001 through 2010 taken from the MRCOG Traffic Flow Maps were Standard Data. The data from those years for each approach was plotted on a graph and a linear "regression trend line" calculated using the equation format $y=mx+b$. The growth rate was determined by calculating the average volume increase per year during the time period considered and dividing that volume into the most recent AWDT used in the analysis from which future volumes will be calculated. The rate of growth of that trend line was utilized as the growth rate for each approach if that calculated rate appeared feasible. However, there may be some instances where the rate indicated a negative growth trend or appeared to be unreasonably high or low. In those cases, an appropriate growth rate from an adjacent segment of the same roadway was used, a shorter time span was used to determine the growth rate, or the growth rate was considered to be zero or a generic 0.5% if appropriate. Due to the potential for growth in the area, it was believed that a zero percent growth rate was inappropriate for this study. Therefore, a growth rate of 0.5% was often used if the linear regression analysis showed the growth rate to be negative. Additionally, if the R^2 value of the trend line was low, other means of establishing a probable growth rate from the data accumulated was considered. Historical Growth Rate Graphs with linear regression trendlines are shown in the Appendix on Pages A-18 through A-25. Additionally, the growth rate utilized for each approach to an intersection is printed at the top of the Turning Movement sheets for each intersection (Appendix Pages A-29 through A-42).

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2013 BUILDOUT

The calculated growth rates were applied to the most recent peak hour traffic counts (conducted for this study) to establish the 2013 background NO BUILD traffic volumes. To these volumes, the generated trips based on implementation of the proposed Oxbow Town Center Apartments (100% development) were added to obtain 2013 BUILD volumes for the intersection analyses. See Appendix Pages A-16 thru A-25 for further information regarding 2013 turning movement counts.

INTERSECTION CAPACITY ANALYSIS

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections in the Highway Capacity Manual, Special Report 209, Transportation Research Board, 2000, using Trafficware's Synchro version 7 Highway Capacity Software for signalized and unsignalized intersections. For signalized intersections, the operational method of analysis was used for 2013 conditions (BUILD).

It should be noted that Synchro 8 (using HCM 2010 methodology) was not utilized in this analysis since there are numerous problematic issues related to the new software. Synchro 8 was recently released, but there have been problems with the software that Trafficware is trying to address, but have not yet done so. Therefore, Synchro 7 was utilized for this study as required by the City of Albuquerque and New Mexico Department of Transportation.

Capacity analyses were performed for the following traffic conditions.

- 2013 without development of the subject property (2013 NO BUILD)
- 2013 with total development as per the Proposed Site Plan (2013 BUILD).

The results of the 2013 NO BUILD and BUILD capacity analyses are summarized in the following sections - *Results and Discussion of Intersection Capacity Analyses*.

The Highway Capacity Manual (2010) defines Level of Service (LOS) for signalized and unsignalized intersections in terms of average controlled delay per vehicle as follows:

LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

<u>Average Delay</u> <u>(secs)</u>	<u>Level-of-Service</u>
≤ 10	A
> 10 and ≤ 20	B
> 20 and ≤ 35	C
> 35 and ≤ 55	D
> 55 and ≤ 80	E
> 80	F

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

<u>Average Delay</u> <u>(secs)</u>	<u>Level-of-Service</u>
≤ 10	A
> 10 and ≤ 15	B
> 15 and ≤ 25	C
> 25 and ≤ 35	D
> 35 and ≤ 50	E
> 50	F

Level of Service D is generally considered acceptable in urban areas and is the desirable base condition for analysis in a traffic study. In addition to consideration of the overall level-of-service of the signalized intersection, the levels-of-service of each individual movement should be considered.

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2013)

Intersection #1 - Sequoia Rd. / Coors Blvd. - Pages A-43 thru A-46

The results of the implementation year analysis of the signalized intersection of Sequoia Rd. / Coors Blvd. are summarized in the following table:

Intersection: 1 - SEQUOIA RD / COORS BLVD

2013 AM Peak Hour BUILD						2013 PM Peak Hour BUILD					
		(EXIST. GEOM.)						(EXIST. GEOM.)			
		NO BUILD		BUILD				NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay			Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	D - 49.2	1	D - 49.2	L	1	D - 48.3	1	D - 48.3	
	T	2	D - 48.4	2	D - 48.4	T	2	D - 41.6	2	D - 41.6	
	R	>	D - 48.4	>	D - 48.4	R	>	D - 41.6	>	D - 41.6	
WB	L	1	E - 68.2	1	E - 68.2	L	1	E - 79.7	1	E - 79.7	
	T	1	D - 46.8	1	D - 46.8	T	1	D - 42.1	1	D - 42.1	
	R	1	D - 40.9	1	D - 40.9	R	1	D - 35.6	1	D - 35.7	
NB	L	1	B - 12.1	1	B - 12.7	L	1	B - 14.7	1	B - 15.7	
	T	3	A - 7.5	3	A - 7.5	T	3	B - 19.3	3	C - 20.1	
	R	1	A - 5.6	1	A - 5.6	R	1	A - 8.4	1	A - 8.4	
SB	L	1	A - 1.1	1	A - 4.4	L	1	C - 29.0	1	D - 41.3	
	T	3	A - 3.1	3	B - 12.1	T	3	B - 15.6	3	B - 11.7	
	R	1	A - 0.1	1	A - 5.7	R	1	B - 11.5	1	A - 5.9	
Intersection:		A - 9.4		B - 14.5				C - 22.3		C - 21.5	

Note: ">" designates a shared right or left turn lane next to a thru lane.

This study demonstrates that this signalized intersection will operate at acceptable levels-of-service for the 2013 AM Peak Hour and PM Peak Hour NO BUILD and BUILD Conditions considered in this report. The newly generated traffic from this development will only increase the delay from 0 to 5.1 seconds. It is important to note that sometimes the BUILD Condition demonstrates a lower delay than the NO BUILD Condition due to the difference in intersection splits, just as is the case for the PM Peak Hour Condition. The analysis demonstrates that there will be no adverse impact to the intersection. Therefore, no recommendation is made for the Sequoia Rd. / Coors Blvd. intersection.

The results of the queueing analysis for this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
 Intersection: Sequoia Rd / Coors Blvd NW

2013											
Approach		Left Turns			Thru Movements			Right Turns			
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length	1	57	150	2	35	Cont	0	145	0		
AM NO BUILD Queue	1	57	100	2	35	50	0	146	225		
AM BUILD Queue	1	57	100	2	35	50	0	146	225		
Existing Lane Length	1	119	150	2	98	Cont	0	140	0		
PM NO BUILD Queue	1	120	200	2	98	100	0	141	225		
PM BUILD Queue	1	120	200	2	98	100	0	141	225		
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length	1	73	75	1	28	Cont	1	16	75		
AM NO BUILD Queue	1	73	125	1	28	75	1	16	50		
AM BUILD Queue	1	73	125	1	28	75	1	16	50		
Existing Lane Length	1	139	75	1	100	Cont	1	46	75		
PM NO BUILD Queue	1	140	200	1	101	175	1	46	100		
PM BUILD Queue	1	140	200	1	101	175	1	47	100		
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length	1	51	125	3	1,114	Cont	1	38	180		
AM NO BUILD Queue	1	51	100	3	1,120	525	1	38	75		
AM BUILD Queue	1	51	100	3	1,135	525	1	38	75		
Existing Lane Length	1	146	125	3	2,459	Cont	1	58	180		
PM NO BUILD Queue	1	147	225	3	2,471	>1,000 *	1	58	100		
PM BUILD Queue	1	147	225	3	2,528	>1,000 *	1	58	100		
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length	1	23	110	3	2,233	Cont	1	46	280		
AM NO BUILD Queue	1	23	50	3	2,244	>1,000 *	1	46	100		
AM BUILD Queue	1	24	50	3	2,298	>1,000 *	1	46	100		
Existing Lane Length	1	55	110	3	1,471	Cont	1	32	280		
PM NO BUILD Queue	1	55	100	3	1,478	650	1	32	75		
PM BUILD Queue	1	55	100	3	1,509	675	1	32	75		

AM PM
 Cycle Length: 120 120

NOTE: Queue lengths are in feet.

The recommendations of the queueing analysis for this intersection are summarized in the following table and paragraph:

Lane Description	Existing Length (Ft)	NO BUILD Length (Ft)	BUILD Length (Ft)	Lengthen Existing Auxiliary Lane to:
Eastbound Left Turn:	150	200	200	200' plus transition.
Eastbound Right Turn:*	0	110	110	No Recommendation
Westbound Left Turn:	75	200	200	200' plus transition.
Westbound Right Turn:*	75	50	50	No Recommendation
Northbound Left Turn:	125	225	225	225' plus transition.
Northbound Right Turn:*	180	50	50	No Recommendation
Southbound Left Turn:	110	100	100	No Recommendation
Southbound Right Turn:*	280	50	50	No Recommendation

* - Calculated right turn queue lengths have been reduced by 50% to account for right-turns-on red and overlap phases.

The queueing analysis demonstrates that the eastbound left turn lane should be lengthened to 50 feet plus transition. This would only allow for two additional vehicles and is therefore, not worth the expense of the lengthening. The westbound left turn lane should be lengthened to 200 feet plus transition; however, this cannot be done without adversely impacting the driveway to the east. The northbound left turn lane should be lengthened to 225 feet plus transition; however, this cannot be done without adversely impacting the driveway to the south. Therefore, no recommendations are made for the intersection of Sequoia Rd. / Coors Blvd.

Intersection #2 - St. Josephs Dr. / Coors Blvd. - Pages A-47 thru A-50

The results of the implementation year analysis of the signalized intersection of St. Josephs Dr. / Coors Blvd. are summarized in the following table:

Intersection: 2 - ST. JOSEPH'S DR / COORS BLVD

2013 AM Peak Hour BUILD						2013 PM Peak Hour BUILD					
		(EXIST. GEOM.)						(EXIST. GEOM.)			
		NO BUILD		BUILD				NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay			Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	2	D - 42.4	2	E - 64.9	L	2	F - 84.0	2	E - 58.5	
	T	1	C - 26.6	1	D - 43.4	T	1	C - 28.4	1	C - 30.9	
	R	1	C - 33.3	1	D - 42.1	R	1	D - 49.5	1	C - 34.0	
WB	L	1	D - 41.1	1	D - 41.1	L	1	D - 43.0	1	D - 48.3	
	T	2	D - 45.4	2	D - 45.4	T	2	D - 46.1	2	D - 48.9	
	R	>	D - 45.4	>	D - 45.4	R	>	D - 46.1	>	D - 48.9	
NB	L	1	B - 13.7	1	D - 45.5	L	1	C - 32.2	1	D - 47.2	
	T	3	B - 17.2	3	B - 14.4	T	3	C - 20.9	3	B - 17.9	
	R	1	D - 41.8	1	B - 10.5	R	1	A - 0.1	1	A - 0.1	
SB	L	1	B - 10.1	1	B - 11.3	L	1	D - 40.1	1	D - 37.9	
	T	3	B - 16.5	3	C - 27.2	T	3	C - 22.4	3	C - 31.4	
	R	1	A - 0.1	1	A - 7.4	R	1	D - 49.9	1	E - 77.4	
Intersection:		C - 20.2		C - 26.6				C - 26.3		C - 28.4	

Note: ">" designates a shared right or left turn lane next to a thru lane.

This study demonstrates that this signalized intersection will operate at acceptable levels-of-service for the 2013 AM Peak Hour and PM Peak Hour NO BUILD and BUILD Conditions considered in this report. The newly generated traffic from this development will only increase the delay from 2.1 to 6.4 seconds. The analysis demonstrates that there will be no adverse impact to the intersection. Therefore, no recommendation is made for the St. Joseph's Dr. / Coors Blvd. intersection.

The results of the queueing analysis for this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
 Intersection: St Joseph's Dr / Coors Blvd NW

2013												
Approach		Left Turns			Thru Movements			Right Turns				
Eastbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		2	197	130	1	32	Cont	1	94	130		
AM NO BUILD Queue		2	198	175	1	32	75	1	94	150		
AM BUILD Queue		2	198	175	1	32	75	1	149	225		
Existing Lane Length		2	178	130	1	17	Cont	1	61	130		
PM NO BUILD Queue		2	179	150	1	17	50	1	61	125		
PM BUILD Queue		2	179	150	1	17	50	1	92	150		
Westbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	88	160	2	11	Cont	0	48	0		
AM NO BUILD Queue		1	88	150	2	11	25	0	48	100		
AM BUILD Queue		1	88	150	2	11	25	0	48	100		
Existing Lane Length		1	77	160	2	14	Cont	0	69	0		
PM NO BUILD Queue		1	77	125	2	14	25	0	69	125		
PM BUILD Queue		1	77	125	2	14	25	0	69	125		
Northbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	28	375	3	1,011	Cont	1	131	375		
AM NO BUILD Queue		1	28	75	3	1,016	475	1	132	200		
AM BUILD Queue		1	43	100	3	1,016	475	1	132	200		
Existing Lane Length		1	123	375	3	2,677	Cont	1	60	375		
PM NO BUILD Queue		1	124	200	3	2,690	>1,000 *	1	60	125		
PM BUILD Queue		1	181	250	3	2,690	>1,000 *	1	60	125		
Southbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	81	585	3	2,254	Cont	1	76	280		
AM NO BUILD Queue		1	81	150	3	2,265	>1,000 *	1	76	125		
AM BUILD Queue		1	81	150	3	2,265	>1,000 *	1	76	125		
Existing Lane Length		1	72	585	3	1,607	Cont	1	259	280		
PM NO BUILD Queue		1	72	125	3	1,615	700	1	260	350		
PM BUILD Queue		1	72	125	3	1,615	700	1	260	350		

AM
PM
 Cycle Length: 120 120

NOTE: Queue lengths are in feet.

The recommendations of the queueing analysis for this intersection are summarized in the following table and paragraph:

Lane Description	Existing Length (Ft)	NO BUILD Length (Ft)	BUILD Length (Ft)	Lengthen Existing Auxiliary Lane to:
Eastbound Left Turn:	130	175	175	175' plus transition.
Eastbound Right Turn:*	130	80	110	No Recommendation
Westbound Left Turn:	160	150	150	No Recommendation
Westbound Right Turn:*	0	60	60	No Recommendation
Northbound Left Turn:	375	200	250	No Recommendation
Northbound Right Turn:*	375	100	100	No Recommendation
Southbound Left Turn:	585	150	150	No Recommendation
Southbound Right Turn:*	280	180	180	No Recommendation

* - Calculated right turn queue lengths have been reduced by 50% to account for right-turns-on red and overlap phases.

The queueing analysis demonstrates that the eastbound left turn lane should be lengthened to 175 feet plus transition. This would only allow for less than two additional vehicles and is therefore, not worth the expense of the lengthening. Therefore, no recommendations are made for the intersection of St. Joseph's Dr. / Coors Blvd.

Intersection #3 - Western Trail / Coors Blvd. - Pages A-51 thru A-54

The results of the implementation year analysis of the signalized intersection of Western Trail / Coors Blvd. are summarized in the following table:

Intersection: 3 - WESTERN TRAIL / COORS BLVD

2013 AM Peak Hour BUILD						2013 PM Peak Hour BUILD					
		(EXIST. GEOM.)						(EXIST. GEOM.)			
		NO BUILD		BUILD				NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay			Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	2	E - 57.3	2	E - 57.4	L	2	E - 65.9	2	E - 68.2	
	T	1	E - 61.5	1	E - 56.3	T	1	D - 48.5	1	D - 47.9	
	R	>	E - 61.5	>	E - 56.3	R	>	D - 48.5	>	D - 47.9	
WB	L	1	E - 58.3	1	E - 55.2	L	1	D - 50.3	1	D - 50.5	
	T	1	D - 47.7	1	D - 48.1	T	1	D - 52.3	1	D - 52.5	
	R	1	D - 47.5	1	D - 47.9	R	1	D - 51.8	1	D - 52.0	
NB	L	1	D - 41.6	1	C - 34.9	L	1	D - 51.1	1	D - 54.5	
	T	3	B - 12.9	3	B - 16.8	T	3	A - 6.4	3	A - 3.4	
	R	1	A - 9.8	1	B - 14.9	R	1	A - 1.2	1	A - 0.3	
SB	L	1	A - 6.1	1	B - 10.3	L	1	B - 17.1	1	B - 15.7	
	T	3	B - 15.4	3	B - 15.6	T	3	B - 17.2	3	B - 16.7	
	R	1	A - 3.3	1	A - 4.6	R	1	A - 8.3	1	A - 7.1	
Intersection:		C - 20.9			C - 22.1			B - 15.2			B - 13.9

Note: ">" designates a shared right or left turn lane next to a thru lane.

This study demonstrates that this signalized intersection will operate at acceptable levels-of-service for the 2013 AM Peak Hour and PM Peak Hour NO BUILD and BUILD Conditions considered in this report. The newly generated traffic from this development will only increase the delay from 0 to 1.2 seconds. It is important to note that sometimes the BUILD Condition demonstrates a lower delay than the NO BUILD Condition due to the difference in intersection splits, just as is the case for the PM Peak Hour Condition. The analysis demonstrates that there will be no adverse impact to the intersection. Therefore, no recommendation is made for the Western Trail / Coors Blvd. intersection.

The results of the queueing analysis for this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
 Intersection: Western Trail / Coors Blvd NW

2013									
Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	2	155	160	1	7	Cont	0	211	0
AM NO BUILD Queue	2	168	150	1	8	25	0	229	300
AM BUILD Queue	2	208	175	1	8	25	0	229	300
Existing Lane Length	2	102	160	1	2	Cont	0	66	0
PM NO BUILD Queue	2	111	125	1	2	0	0	72	125
PM BUILD Queue	2	134	125	1	2	0	0	72	125
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	58	300	1	7	Cont	1	22	240
AM NO BUILD Queue	1	58	100	1	7	25	1	22	50
AM BUILD Queue	1	58	100	1	7	25	1	22	50
Existing Lane Length	1	21	300	1	9	Cont	1	20	240
PM NO BUILD Queue	1	21	50	1	9	25	1	20	50
PM BUILD Queue	1	21	50	1	9	25	1	20	50
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	63	220	3	1,230	Cont	1	15	240
AM NO BUILD Queue	1	63	125	3	1,236	575	1	15	50
AM BUILD Queue	1	63	125	3	1,236	575	1	15	50
Existing Lane Length	1	240	220	3	2,487	Cont	1	39	240
PM NO BUILD Queue	1	241	325	3	2,499	>1,000 *	1	39	75
PM BUILD Queue	1	241	325	3	2,499	>1,000 *	1	39	75
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	9	160	3	1,985	Cont	1	39	400
AM NO BUILD Queue	1	9	25	3	1,995	850	1	39	75
AM BUILD Queue	1	9	25	3	1,995	850	1	50	100
Existing Lane Length	1	26	160	3	1,733	Cont	1	165	400
PM NO BUILD Queue	1	26	75	3	1,742	750	1	166	250
PM BUILD Queue	1	26	75	3	1,742	750	1	208	300

AM
PM
 Cycle Length: 120 120

NOTE: Queue lengths are in feet.

The recommendations of the queueing analysis for this intersection are summarized in the following table and paragraph:

Lane Description	Existing Length (Ft)	NO BUILD Length (Ft)	BUILD Length (Ft)	Lengthen Existing Auxiliary Lane to:
Eastbound Left Turn:	160	150	175	No Recommendation
Eastbound Right Turn:*	0	150	150	No Recommendation
Westbound Left Turn:	300	100	100	No Recommendation
Westbound Right Turn:*	240	30	30	No Recommendation
Northbound Left Turn:	220	325	325	325' plus transition.
Northbound Right Turn:*	240	40	40	No Recommendation
Southbound Left Turn:	160	75	75	No Recommendation
Southbound Right Turn:*	400	130	150	No Recommendation

* - Calculated right turn queue lengths have been reduced by 50% to account for right-turns-on red and overlap phases.

The queueing analysis demonstrates that the northbound left turn lane should be lengthened to 325 feet plus transition. This queue length is inadequate in the NO BUILD Condition, and thus this development is not responsible since it adds no traffic to the movement. Therefore, no recommendations are made for the intersection of St. Western Trail / Coors Blvd.

Intersection #4 - Sevilla Ave. / Coors Blvd. - Pages A-55 thru A-58

The results of the implementation year analysis of the signalized intersection of Sevilla Ave. / Coors Blvd. are summarized in the following table:

Intersection: 4 - SEVILLA AVE / COORS BLVD

2013 AM Peak Hour BUILD						2013 PM Peak Hour BUILD					
		(EXIST. GEOM.)						(EXIST. GEOM.)			
		NO BUILD		BUILD				NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay			Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	E - 55.2	1	E - 55.2	L	1	E - 55.5	1	E - 55.5	
	T	1	D - 52.4	1	D - 52.4	T	1	D - 51.0	1	D - 51.0	
	R	>	D - 52.4	>	D - 52.4	R	>	D - 51.0	>	D - 51.0	
WB	L	1	D - 53.0	1	D - 53.0	L	1	D - 50.9	1	D - 50.9	
	T	1	D - 52.4	1	D - 52.4	T	1	D - 51.1	1	D - 51.1	
	R	>	D - 52.4	>	D - 52.4	R	>	D - 51.1	>	D - 51.1	
NB	L	1	A - 1.3	1	A - 4.4	L	1	B - 14.8	1	B - 17.1	
	T	3	A - 2.9	3	A - 5.5	T	3	A - 2.6	3	A - 3.8	
	R	1	A - 1.0	1	A - 3.5	R	1	A - 0.8	1	A - 2.0	
SB	L	1	A - 2.7	1	A - 2.7	L	1	B - 10.9	1	B - 11.2	
	T	3	A - 7.2	3	A - 7.2	T	3	A - 7.4	3	A - 7.5	
	R	1	A - 3.4	1	A - 3.4	R	1	A - 4.2	1	A - 4.2	
Intersection:		A - 6.7		A - 7.7				A - 5.8		A - 6.6	

Note: ">" designates a shared right or left turn lane next to a thru lane.

This study demonstrates that this signalized intersection will operate at acceptable levels-of-service for the 2013 AM Peak Hour and PM Peak Hour NO BUILD and BUILD Conditions considered in this report. The newly generated traffic from this development will only increase the delay from 0.8 to 1 second. The analysis demonstrates that there will be no adverse impact to the intersection. Therefore, no recommendation is made for the Sevilla Ave. / Coors Blvd. intersection.

The results of the queueing analysis for this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
 Intersection: Sevilla Ave / Coors Blvd NW

2013									
Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	21	100	1	1	Cont	0	23	0
AM NO BUILD Queue	1	21	50	1	1	0	0	23	50
AM BUILD Queue	1	21	50	1	1	0	0	23	50
Existing Lane Length	1	36	100	1	0	Cont	0	30	0
PM NO BUILD Queue	1	36	75	1	0	0	0	30	75
PM BUILD Queue	1	36	75	1	0	0	0	30	75
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	8	60	1	0	Cont	0	36	0
AM NO BUILD Queue	1	8	25	1	0	0	0	36	75
AM BUILD Queue	1	8	25	1	0	0	0	36	75
Existing Lane Length	1	2	60	1	4	Cont	0	23	0
PM NO BUILD Queue	1	2	0	1	4	25	0	23	50
PM BUILD Queue	1	2	0	1	4	25	0	23	50
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	6	330	3	1,501	Cont	1	6	400
AM NO BUILD Queue	1	6	25	3	1,509	675	1	6	25
AM BUILD Queue	1	6	25	3	1,549	675	1	6	25
Existing Lane Length	1	55	330	3	2,531	Cont	1	11	400
PM NO BUILD Queue	1	55	100	3	2,544	>1,000 *	1	11	50
PM BUILD Queue	1	55	100	3	2,567	>1,000 *	1	11	50
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	9	390	3	2,075	Cont	1	5	415
AM NO BUILD Queue	1	9	25	3	2,092	875	1	5	25
AM BUILD Queue	1	9	25	3	2,103	900	1	5	25
Existing Lane Length	1	28	390	3	1,955	Cont	1	59	415
PM NO BUILD Queue	1	28	75	3	1,971	850	1	59	100
PM BUILD Queue	1	28	75	3	2,013	850	1	59	100

AM PM
 Cycle Length: 120 120

NOTE: Queue lengths are in feet.

The recommendations of the queueing analysis for this intersection are summarized in the following table and paragraph:

Lane Description	Existing Length (Ft)	NO BUILD Length (Ft)	BUILD Length (Ft)	Lengthen Existing Auxiliary Lane to:
Eastbound Left Turn:	100	75	75	No Recommendation
Eastbound Right Turn:*	0	40	40	No Recommendation
Westbound Left Turn:	60	25	25	No Recommendation
Westbound Right Turn:*	0	40	40	No Recommendation
Northbound Left Turn:	330	100	100	No Recommendation
Northbound Right Turn:*	400	30	30	No Recommendation
Southbound Left Turn:	390	75	75	No Recommendation
Southbound Right Turn:*	415	50	50	No Recommendation

* - Calculated right turn queue lengths have been reduced by 50% to account for right-turns-on red and overlap phases.

No recommendations are made for the intersection of Sevilla Ave. / Coors Blvd.

Intersection #5 - St. Josephs Dr. / Atrisco Rd. - Pages A-59 thru A-62

The results of the implementation year analysis of the signalized intersection of St. Josephs Dr. / Atrisco Rd. are summarized in the following table:

Intersection: 5 - ST JOSEPH'S DR / ATRISCO DR

<u>2013 AM Peak Hour BUILD</u>						<u>2013 PM Peak Hour BUILD</u>					
		(EXIST. GEOM.)						(EXIST. GEOM.)			
		NO BUILD		BUILD				NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay			Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	D - 36.6	1	D - 36.6	L	1	E - 58.1	1	E - 58.0	
	T	1	D - 52.1	1	D - 52.0	T	1	D - 51.5	1	D - 51.5	
	R	1	D - 35.9	1	D - 35.8	R	1	D - 41.9	1	D - 41.8	
WB	L	1	D - 47.9	1	D - 45.3	L	1	C - 27.5	1	C - 24.8	
	T	2	D - 41.1	2	D - 37.4	T	2	C - 34.2	2	C - 31.3	
	R	>	D - 41.1	>	D - 37.4	R	>	C - 34.2	>	C - 31.3	
NB	L	1	A - 6.2	1	A - 6.3	L	1	A - 4.2	1	A - 4.2	
	T	1	A - 6.6	1	A - 6.6	T	1	A - 5.7	1	A - 5.7	
	R	>	A - 6.6	>	A - 6.6	R	>	A - 5.7	>	A - 5.7	
SB	L	1	A - 6.5	1	A - 6.5	L	1	A - 4.0	1	A - 4.0	
	T	1	A - 9.3	1	A - 9.3	T	1	A - 4.5	1	A - 4.5	
	R	>	A - 9.3	>	A - 9.3	R	>	A - 4.5	>	A - 4.5	
Intersection:		C - 26.8			C - 26.3			C - 23.1			C - 22.2

Note: ">" designates a shared right or left turn lane next to a thru lane.

This study demonstrates that this signalized intersection will operate at acceptable levels-of-service for the 2013 AM Peak Hour and PM Peak Hour NO BUILD and BUILD Conditions considered in this report. The newly generated traffic from this development will not increase

the delay. It is important to note that sometimes the BUILD Condition demonstrates a lower delay than the NO BUILD Condition due to the difference in intersection splits, just as is the case for the AM and PM Peak Hour Condition. The analysis demonstrates that there will be no adverse impact to the intersection. Therefore, no recommendation is made for the St. Joseph's Dr. / Atrisco Rd. intersection.

The results of the queueing analysis for this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
 Intersection: St Joseph's Dr / Atrisco Rd

2013											
Approach		Left Turns			Thru Movements			Right Turns			
Eastbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length		1	35	115	1	305	Cont	1	56	115	
AM NO BUILD Queue		1	35	75	1	307	400	1	56	100	
AM BUILD Queue		1	35	75	1	308	400	1	56	100	
Existing Lane Length		1	44	115	1	172	Cont	1	46	115	
PM NO BUILD Queue		1	44	100	1	173	250	1	46	100	
PM BUILD Queue		1	44	100	1	175	250	1	46	100	
Westbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length		1	39	150	2	90	Cont	0	25	0	
AM NO BUILD Queue		1	39	75	2	90	100	0	25	75	
AM BUILD Queue		1	40	75	2	92	100	0	25	75	
Existing Lane Length		1	34	150	2	301	Cont	0	70	0	
PM NO BUILD Queue		1	34	75	2	303	250	0	70	125	
PM BUILD Queue		1	35	75	2	304	250	0	70	125	
Northbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length		1	13	200	1	72	Cont	0	34	0	
AM NO BUILD Queue		1	13	50	1	72	125	0	34	75	
AM BUILD Queue		1	13	50	1	72	125	0	34	75	
Existing Lane Length		1	62	200	1	325	Cont	0	52	0	
PM NO BUILD Queue		1	62	125	1	327	425	0	52	100	
PM BUILD Queue		1	62	125	1	327	425	0	53	100	
Southbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length		1	47	105	1	391	Cont	0	23	0	
AM NO BUILD Queue		1	47	100	1	393	475	0	23	50	
AM BUILD Queue		1	47	100	1	393	475	0	23	50	
Existing Lane Length		1	22	105	1	161	Cont	0	29	0	
PM NO BUILD Queue		1	22	50	1	162	225	0	29	75	
PM BUILD Queue		1	22	50	1	162	225	0	29	75	

AM
PM
 Cycle Length: 120 120

NOTE: Queue lengths are in feet.

The recommendations of the queueing analysis for this intersection are summarized in the following table and paragraph:

Lane Description	Existing Length (Ft)	NO BUILD Length (Ft)	BUILD Length (Ft)	Lengthen Existing Auxiliary Lane to:
Eastbound Left Turn:	115	100	100	No Recommendation
Eastbound Right Turn:*	115	50	50	No Recommendation
Westbound Left Turn:	150	75	75	No Recommendation
Westbound Right Turn:*	0	60	60	No Recommendation
Northbound Left Turn:	200	125	125	No Recommendation
Northbound Right Turn:*	0	50	50	No Recommendation
Southbound Left Turn:	105	100	100	No Recommendation
Southbound Right Turn:*	0	40	40	No Recommendation

* - Calculated right turn queue lengths have been reduced by 50% to account for right-turns-on red and overlap phases.

No recommendations are made for the intersection of St Joseph's Dr. / Atrisco Rd.

RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2013)

Intersection #6 - Western Trail / Quaker Heights - Pages A-63 thru A-66

The results of the implementation year analysis of the signalized intersection of Western Trail / Quaker Heights are summarized in the following table:

Intersection: 6 - WESTERN TRAIL / QUAKER HTS

2013 AM Peak Hour BUILD						2013 PM Peak Hour BUILD					
		(EXIST. GEOM.)						(EXIST. GEOM.)			
		NO BUILD		BUILD				NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay			Lanes	LOS-Delay	Lanes	LOS-Delay
EB	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.2	2	A - 0.2	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.2	>	A - 0.2	
WB	L	1	A - 8.2	1	A - 8.2	L	1	A - 7.7	1	A - 7.8	
	R	>	A - 10.0	>	B - 10.2	R	>	B - 10.1	>	A - 9.9	
NB	T	1	A - 10.0	1	B - 10.2	T	1	B - 10.1	1	A - 9.9	
	R	>	A - 10.0	>	B - 10.2	R	>	B - 10.1	>	A - 9.9	
SB	L	>	B - 10.7	>	B - 11.4	L	>	B - 11.8	>	B - 13.0	
	T	1	B - 10.7	1	B - 11.4	T	1	B - 11.8	1	B - 13.0	
	R	1	B - 10.7	1	B - 11.4	R	1	B - 11.8	1	B - 13.0	
Intersection:		u - N/A		u - N/A				u - N/A		u - N/A	

Note: ">" designates a shared right or left turn lane next to a thru lane.

This study demonstrates that this unsignalized intersection will operate at acceptable levels-of-service for the 2013 AM Peak Hour and PM Peak Hour NO BUILD and BUILD Conditions considered in this report and that the newly generated traffic from this development will not have a significant adverse impact on this intersection. Therefore, no recommendations are made for the Western Trail / Quaker Heights intersection.

Intersection #7 - St. Josephs Dr. / Driveway "A" - Pages A-67 and A-68

The results of the analysis of the unsignalized intersection of St. Joseph's Dr. / Driveway "A" (full access) are summarized in the following table:

Intersection: 7 - ST JOSEPH'S DR / DRIVEWAY 'A'

2013 Peak Hour BUILD

		(EXIST. GEOM.)			
		AM BUILD		PM BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	>	A - 0.0	>	A - 0.1
	T	1	A - 0.0	1	A - 0.1
SB	L	1	B - 13.8	1	C - 15.9
	R	>	B - 13.8	>	C - 15.9
Intersection:		u - N/A		u - N/A	

Note: ">" designates a shared right or left turn lane next to a thru lane.

Driveway "A" should be constructed with one exiting lane and one entering lane. This study demonstrates that this unsignalized driveway will operate at acceptable levels-of-service for the 2013 AM Peak Hour and PM Peak Hour BUILD Conditions considered in this report.

CONCLUSIONS

This analysis was conducted using the following methodology: Trip Generation was established using the Institute of Transportation Engineers' (ITE's) Trip Generation Manual (7th Edition). Generated Trips were distributed proportionately based on the Population Data Analysis Subzones for Commercial Land Use and Office Land Use; NO BUILD volumes were established based on recent traffic count data grown at historical growth rate; and the intersection analyses were performed in accordance with the 2000 Highway Capacity Manual, Special Report 209. The Traffic Impact Study showed a moderate to substantial increase in traffic volumes for the adjacent transportation network based on 100% buildout of the proposed project.

In summary, the proposed plan for the Oxbow Town Center Apartments presents no significant adverse impact to the adjacent transportation system provided that the following recommendations are followed:

RECOMMENDATIONS

- All site design and construction including driveways and landscaping shall maintain adequate sight distances at the driveways and the existing intersections.
- Access to the site should be via the extension of Quaker Heights from the south boundary of the subdivision to the north of the project site to St. Joseph's Dr. and via the implementation of one driveway (Driveway "A" – the intersection of Quaker Heights / St. Joseph's Dr.) as defined on the conceptual site plan on Page A-3 of the Appendix of this report.

- Driveway "A" onto St. Josephs Dr. should be a full access driveway designed and constructed to conform to the requirements of the City of Albuquerque. The driveway should be constructed with one entering lane and one exiting lane.

Appendix

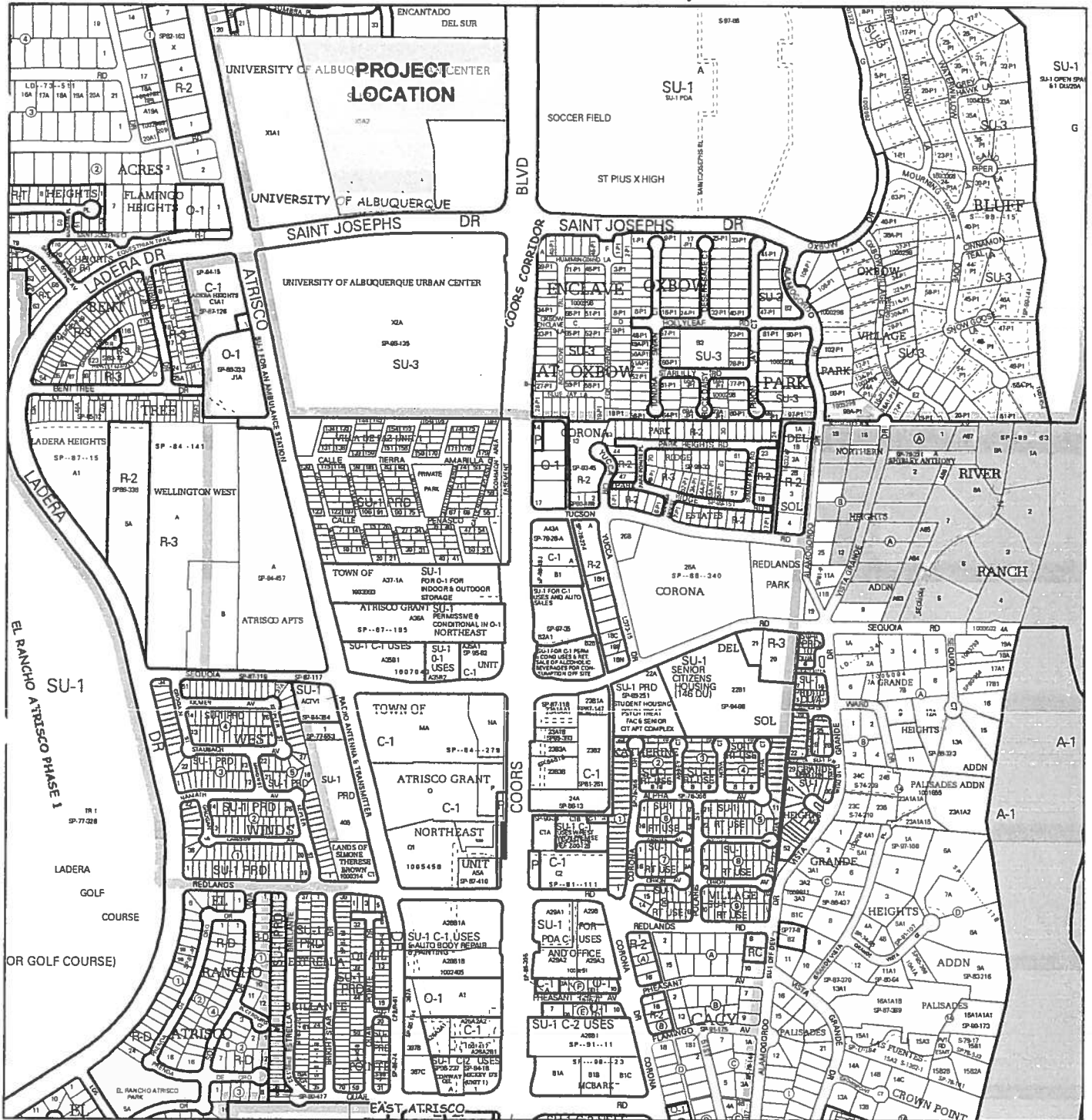
<u>SITE INFORMATION</u>	
Aerial Map	A-1
Vicinity Map	A-2
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APPENDIX

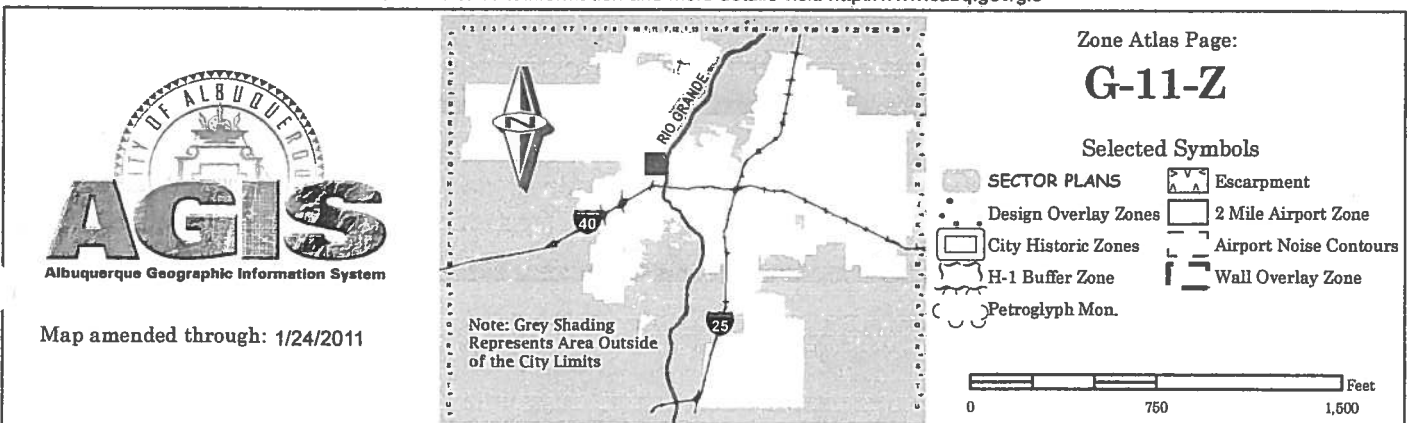


Oxbow Apartments
(St. Joseph's Dr / Coors Blvd)
Aerial Map

Oxbow Town Center Apartments



For more current information and more details visit: <http://www.cabq.gov/gis>



PROJECT DATA

SITE PLAN FOR SUBDIVISION - REQUIRED INFORMATION

THE SITE CONSISTS OF APPROXIMATELY 21.22 ACRES (TRACT X-1-42 UNIVERSITY OF ALBUQUERQUE URBAN CENTER). THE INTERIOR PARCEL LINES SHOWN ON THIS SITE PLAN ARE ILLUSTRATIVE. FINAL PLATTING WILL OCCUR AS SPECIFIC DEVELOPMENT PROJECTS ARE PROPOSED. THE SUBJECT PROPERTY IS PROPOSED TO BE SUBDIVIDED INTO THREE SEPARATE LOTS, LOT 1 THRU 3 AND THREE SEPARATE TRACTS, TRACT A THRU C. THE PROPOSED PROJECT CONSTRUCTS MULTI-FAMILY RESIDENTIAL UNITS ON LOTS 1 AND 2 AND CREATES LOT 3 FOR FUTURE PERMITTED USE. TRACTS 1, 2, AND 3 ARE FOR ROADWAY RIGHT-OF-WAY DEDICATION.

PROPOSED LAND USES

LOT 1 MULTI-FAMILY R-2
LOT 2 MULTI-FAMILY R-2
LOT 3 FUTURE PERMITTED USE
TRACT A QUAKER HEIGHTS PLACE RIGHT-OF-WAY
TRACT B COORS BOULEVARD RIGHT-OF-WAY
TRACT C COORS BOULEVARD RIGHT-OF-WAY

CURRENT ZONING TRACT

TRACT X-1-42 SU-3 SPECIAL CENTER ZONE FOR C-2 AND O-1 USES

PROPOSED ZONING

LOT 1 SU-3 FOR C-2 AND R-3 USES
LOT 2 SU-3 FOR C-2 AND R-3 USES
LOT 3 SU-3 SPECIAL CENTER ZONE FOR C-2 AND O-1 USES

PROPOSED PARCELS

LOT 1 373,604 SF 8.59 AC. TRACT A 51,993 SF 1.19 AC.
LOT 2 251,989 SF 5.78 AC. TRACT B 6,738 SF 0.15 AC.
LOT 3 233,743 SF 5.37 AC. TRACT C 6,473 SF 0.15 AC.

MAXIMUM DENSITY

30 DWELLING UNITS / ACRE

MAXIMUM FLOOR TO AREA RATIO

1.0

PEDESTRIAN AND VEHICULAR INGRESS AND EGRESS

VEHICULAR ACCESS
COORS BOULEVARD PROVIDES THE MAJOR SIGNALIZED ACCESS INTO OXBOW APARTMENTS IS FROM ST. JOSEPH DRIVE. SECONDARY ACCESS IS PROVIDED FROM THE EXTENSION OF QUAKER HEIGHTS PLACE. FUTURE ACCESS IS PROVIDED FROM COORS BOULEVARD.

BICYCLE AND TRAIL ACCESS

BICYCLE ACCESS IS PROVIDED BY SIX FOOT ON-STREET BIKE LINES IN COORS BOULEVARD. SIDEWALKS WILL PROVIDE PEDESTRIAN CONNECTIVITY WITHIN OXBOW APARTMENT COMPLEX CONSISTENT WITH THE REQUIREMENTS OF THE UNIVERSITY OF ALBUQUERQUE SECTOR DEVELOPMENT PLAN.

TRANSIT ACCESS
COORS BOULEVARD IS DESIGNATED A MAJOR TRANSIT CORRIDOR, WITH A REGULAR BUS ROUTE AND A RAPID RIDE ROUTE.

PHASING

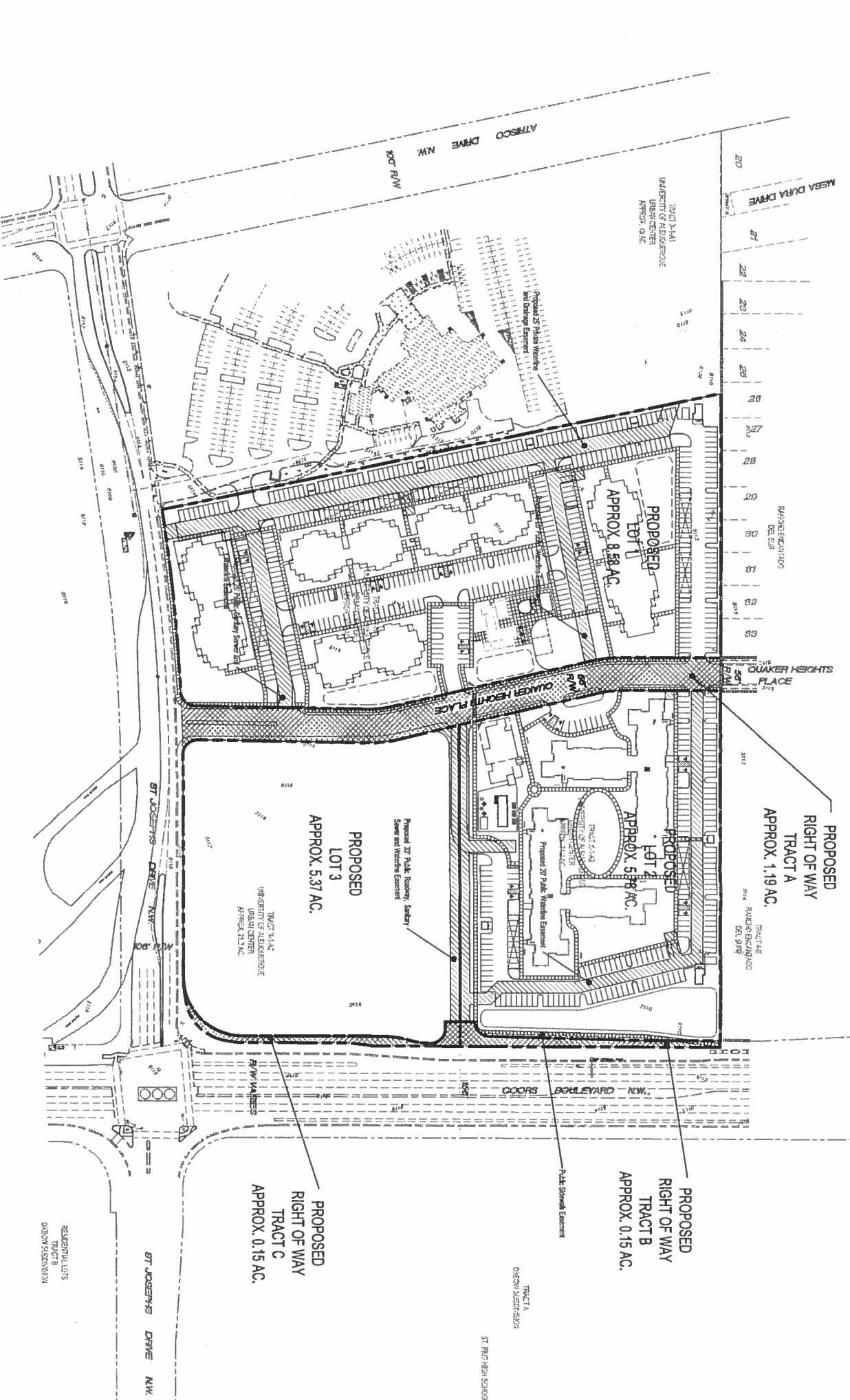
PHASE 1
CONSTRUCT QUAKER HEIGHTS PLACE AND PUBLIC WATER AND SEWER LINES
CONSTRUCT STORMWATER DISCHARGE FACILITIES FOR LOTS 1 AND 2

PHASE 2
CONSTRUCT LOT 2 IMPROVEMENTS

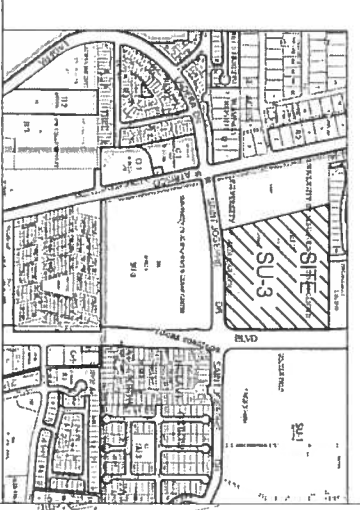
PHASE 3
CONSTRUCT LOT 3 IMPROVEMENTS AND COORS BOULEVARD ACCESS

DRAWING INDEX

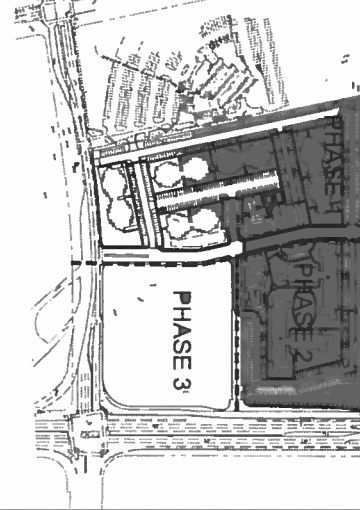
SDP-0.1 SITE DEVELOPMENT PLAN FOR SUBDIVISION
SDP-0.2 DESIGN STANDARDS
SDP-1.1 SITE DEVELOPMENT PLAN FOR BUILDING PERMIT
SDP-1.2 PROJECT DATA AND DETAILS
SDP-2.1 LANDSCAPE PLAN
SDP-3.1 GRADING AND DRAINAGE PLAN
SDP-4.1 UTILITY PLAN
SDP-5.1 BUILDING ELEVATIONS
SDP-5.2 BUILDING ELEVATIONS



B1 SITE PLAN FOR SUBDIVISION
SCALE 1"=150'



B1 SITE VICINITY
MAP NO. G-11
SCALE 1"=150'



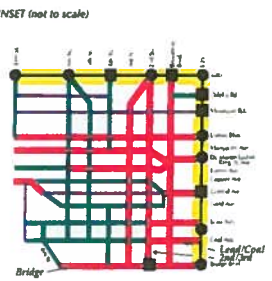
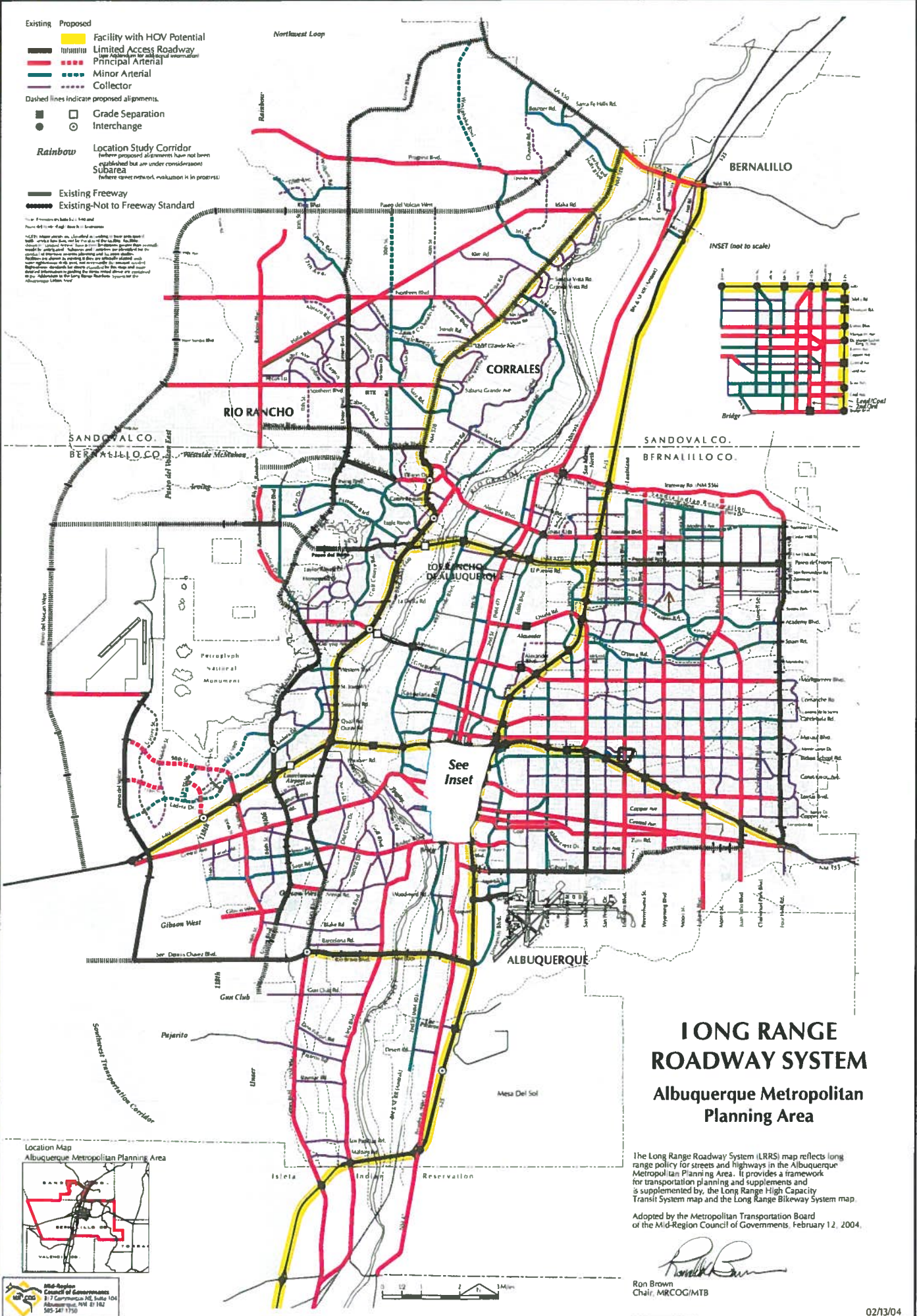
B1 PHASING PLAN
SCALE 1"=300'

- Existing Proposed
- Facility with HOV Potential
 - Limited Access Roadway
 - Principal Arterial
 - Minor Arterial
 - Collector
- Dashed lines indicate proposed alignments.
- Grade Separation
 - Interchange

Rainbow Location Study Corridor
(where proposed alignments have not been established but are under consideration)
Subarea

- Existing Freeway
- Existing-Not to Freeway Standard

Map of the Albuquerque Metropolitan Planning Area showing the Long Range Roadway System (LRRS) map. The map shows the existing and proposed roadway network in the Albuquerque Metropolitan Planning Area. The map includes the following information:



LONG RANGE ROADWAY SYSTEM

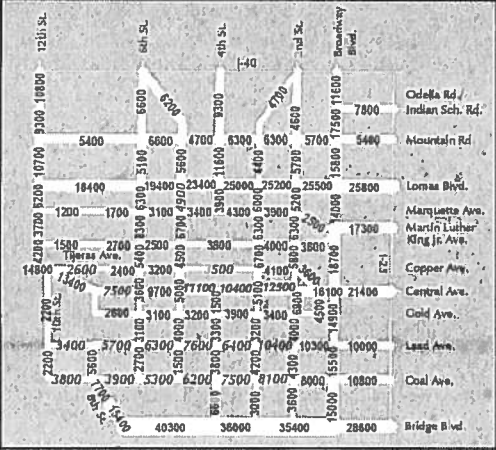
Albuquerque Metropolitan Planning Area

The Long Range Roadway System (LRRS) map reflects long range policy for streets and highways in the Albuquerque Metropolitan Planning Area. It provides a framework for transportation planning and supplements and is supplemented by the Long Range High Capacity Transit System map and the Long Range Bikeway System map.

Adopted by the Metropolitan Transportation Board of the Mid-Region Council of Governments, February 12, 2004.

Ron Brown
Ron Brown
Chair, MRCOG/MTB

Inset for Downtown



Inset for Uptown



Average Weekday Traffic Flows

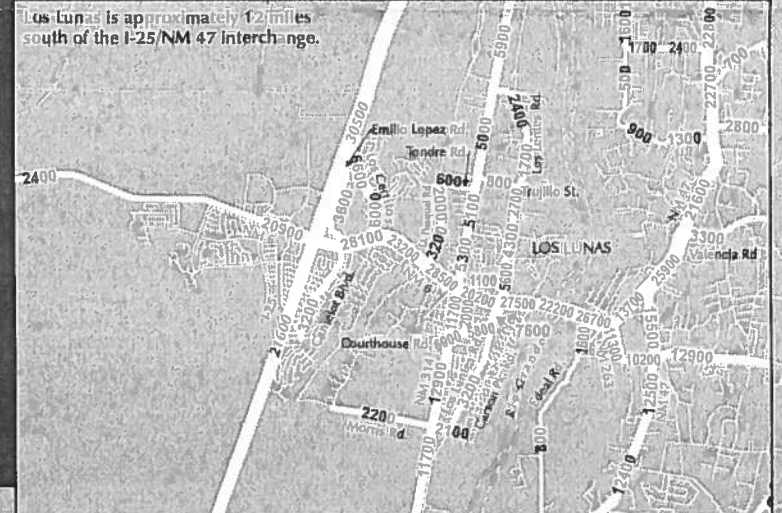
- 0 - 900
- 1000 - 4900
- 5000 - 14900
- 15000 - 24900
- 25000 - 34900
- 35000 - 44900
- 45000 - 54900
- 55000 - 184900

Standard Data Link Volume is based on traffic count data accepted by the NM Department of Transportation Traffic Monitoring System (TMS) as standard in accordance with the New Mexico State Traffic Monitoring Standards (NM-TMS).

Non-Standard Link Volume is based either on traffic count data not in compliance with the NM-TMS or on professional judgement. NMDOT recommends that 9500 non-standard data be used with caution.

Map prepared by the Mid-Region Council of Governments in cooperation with the New Mexico Department of Transportation, the local governments in the Albuquerque Metropolitan Planning Area, and the U.S. Department of Transportation, Federal Highway Administration.

Inset for Los Lunas, Valencia County



2010 Traffic Flows for the Greater Albuquerque Area

Oxbow Apartments (Ladera Dr. / Coors Blvd.)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)	DESCRIPTION	24 HR VOL		A. M. PEAK HR.		P. M. PEAK HR.	
		GROSS		ENTER	EXIT	ENTER	EXIT
<u>Summary Sheet</u>							
	Units						
	Senior Adult Housing - Attached (252)	150.00	522	5	9	12	8
	Apartment, Post-1973 (220)	224.00	1,481	23	91	92	49
	Subtotal		2,003	28	100	104	57

Trips Assumed in 2007 Traffic Impact Study **4,514** **410** **70** **120** **479**

Total Trips in 2007 Traffic Impact Study **32,326** **1,100** **631** **1,390** **1,721**

Blue Volumes are Trips Generated by same land area as Apartment Project

Red Volumes are total Oxbow Project Trips Generated for total project area.

Oxbow Apartments (Ladera Dr. / Coors Blvd.)
Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR		
		ENTER	EXIT	ENTER	EXIT	
Units						
		522	5	9	12	8
		150.00				
Ocdwelling Units						
Senior Adult Housing - Attached (252)						

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

$$T = \frac{3.48 (X) + 0}{50\% \text{ Enter, } 50\% \text{ Exit}}$$

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

$$T = \frac{0.19 (X) + -13.86}{36\% \text{ Enter, } 64\% \text{ Exit}}$$

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

$$T = \frac{0.24 (X) + -16.45}{60\% \text{ Enter, } 40\% \text{ Exit}}$$

Comments:

Tract No.

Based on ITE Trip Generation Manual - 8th Edition

Oxbow Apartments (Ladera Dr. / Coors Blvd.)
Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		ENTER	EXIT	ENTER	EXIT
Units					
	224.00	23	91	92	49
Dwelling Units					
Apartment, Post-1973 (220)	1,481				

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

$$T = \begin{matrix} 6.06 & (X) + & 123.56 \\ 50\% & \text{Enter,} & 50\% \text{ Exit} \end{matrix}$$

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

$$T = \begin{matrix} 0.49 & (X) + & 3.73 \\ 20\% & \text{Enter,} & 80\% \text{ Exit} \end{matrix}$$

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

$$T = \begin{matrix} 0.55 & (X) + & 17.65 \\ 65\% & \text{Enter,} & 35\% \text{ Exit} \end{matrix}$$

Comments:

Tract No.

Based on ITE Trip Generation Manual - 8th Edition

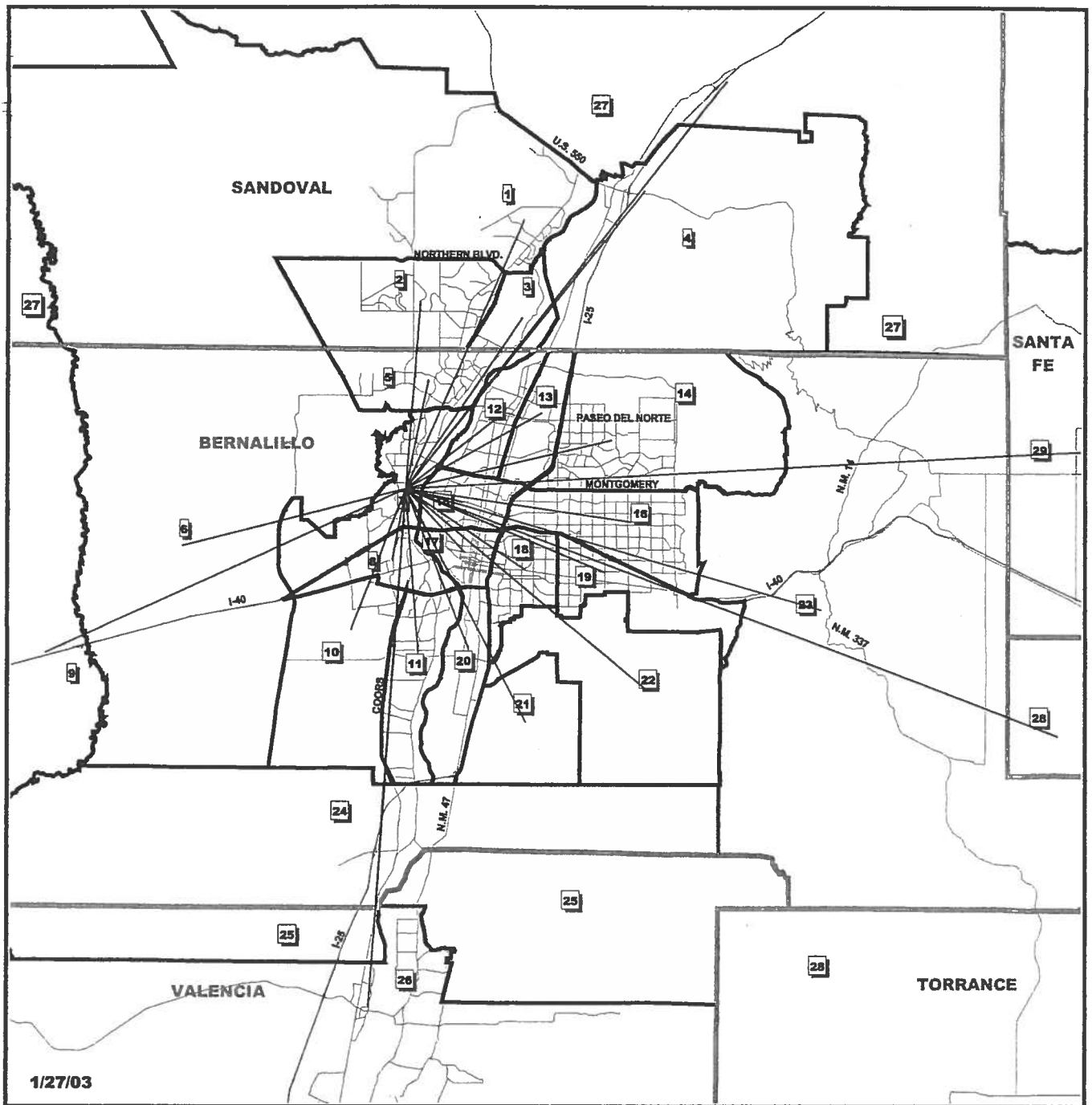


Figure 6

22 Subarea Identification Number

Subareas of the MRCOG Region



**Mid-Region
Council of Governments**
317 Commercial NE, Suite 104
Albuquerque, NM 87102
505-247-1750

Subarea boundaries extend to county boundary
where full extent of subarea not shown except for Subarea 29
which only includes southern Santa Fe County.

**Oxbow Town Center Apartments
(St. Joseph's Dr / Coors Blvd)
Trip Distribution Subarea Map**

Trip Distribution Table

Oxbow Town Center Apts

Sub Area Employment Data:

For determination of Trip Distribution for Proposed Residential Development Trips

2015 and 2025 Data Taken from Mid-Region Council of Governments' 2035

Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

Sub Area I.D.#	% Sub Area in Study	2015 Employment	2025 Employment	Interpolated Employment for the Year 2015	Employment in Study	Dist. (Mi.)	Employment / Distance	% Employment / Distance	(CN)			(SVE)			(WE)		
									% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
1	100%	12,703	25,695	12,703	12,703	12.6	1,008	1.38%	100%	1.38%	1,008	0%	0.00%	0	0%	0.00%	0
2	100%	18,552	22,669	18,552	18,552	8	2,319	3.18%	100%	3.18%	2,319	0%	0.00%	0	0%	0.00%	0
3	100%	1,515	1,695	1,515	1,515	8.9	170	0.23%	100%	0.23%	170	0%	0.00%	0	0%	0.00%	0
4	100%	3,740	4,392	3,740	3,740	16.3	229	0.31%	30%	0.09%	69	0%	0.00%	0	0%	0.00%	0
5	100%	16,599	25,368	16,599	16,599	4.8	3,458	4.74%	100%	4.74%	3,458	0%	0.00%	0	0%	0.00%	0
6	100%	1,853	8,317	1,853	1,853	9.9	187	0.26%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7*	100%	9,714	15,525	9,714	9,714	1	9,714	13.30%	37%	4.92%	3,594	1%	0.13%	97	1%	0.13%	97
8	100%	10,946	16,047	10,946	10,946	3.1	3,531	4.84%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	1,745	2,012	1,745	1,745	16.9	103	0.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
10	100%	3,782	7,258	3,782	3,782	6.5	582	0.80%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
11	100%	6,376	7,317	6,376	6,376	7	911	1.25%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
12	100%	6,731	7,304	6,731	6,731	4.9	1,374	1.88%	100%	1.88%	1,374	0%	0.00%	0	0%	0.00%	0
13	100%	40,930	43,430	40,930	40,930	6.7	6,109	8.37%	100%	8.37%	6,109	0%	0.00%	0	0%	0.00%	0
14	100%	37,316	40,591	37,316	37,316	9	4,146	5.68%	100%	5.68%	4,146	0%	0.00%	0	0%	0.00%	0
15	100%	16,633	17,690	16,633	16,633	2.5	6,653	9.11%	50%	4.56%	3,327	0%	0.00%	0	0%	0.00%	0
16	100%	62,474	65,263	62,474	62,474	9.7	6,441	8.92%	50%	4.41%	3,220	0%	0.00%	0	0%	0.00%	0
17	100%	38,102	39,919	38,102	38,102	3.7	10,568	14.47%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
18	100%	48,080	50,268	48,080	48,080	6.2	7,432	10.18%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
19	100%	28,254	29,328	28,254	28,254	9.2	3,071	4.21%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
20	100%	7,602	9,770	7,602	7,602	7.4	1,027	1.41%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	1,392	21,398	1,392	1,392	11.2	124	0.17%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	28,721	30,372	28,721	28,721	13.4	2,143	2.94%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
23	100%	2,916	4,611	2,916	2,916	18.5	158	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
24	100%	2,337	2,604	2,337	2,337	15.5	151	0.21%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	207	231	207	207	17.8	12	0.02%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	19,091	27,014	19,091	19,091	22.1	864	1.18%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	6,750	7,930	6,750	6,750	22.1	305	0.42%	100%	0.42%	305	0%	0.00%	0	0%	0.00%	0
28	100%	4,759	5,816	4,759	4,759	29.8	160	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
29	100%	2,042	2,773	2,042	2,042	28.9	71	0.10%	100%	0.10%	71	0%	0.00%	0	0%	0.00%	0
		440,862	542,607	440,862	440,862	73,022	73,022	100.00%		39.95%	29,170		0.13%	97		0.13%	97
											39.95%						0.13%

Trip Distribution Table

Oxbow Town Center Apts

Sub Area Employment Data:

For determination of Trip Distribution for Proposed Residential Development Trips

2015 and 2025 Data Taken from Mid-Region Council of Governments' 2035

Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

Sub Area I.D.#	% Sub Area in Study	2015		2025		Interpolated Employment for the Year 2015	Employment In Study	Dist. (Mi.)	Employment / Distance	(StE)			(SqE)			(CS)		
		2015	2015	2025	2025					% Utilizing	Employment	% Employment / Dist. Utilizing	% Utilizing	Employment	% Employment / Dist. Utilizing	% Utilizing	Employment	% Employment / Dist. Utilizing
1	100%	12,703	25,695	12,703	12,703	12,703	12,703	12.6	1,008	0%	0	0.00%	0%	0	0.00%	0%	0	0.00%
2	100%	18,552	22,669	18,552	18,552	18,552	18,552	8	2,319	0%	0	0.00%	0%	0	0.00%	0%	0	0.00%
3	100%	1,515	1,695	1,515	1,515	1,515	1,515	8.9	170	0%	0	0.00%	0%	0	0.00%	0%	0	0.00%
4	100%	3,740	4,392	3,740	3,740	3,740	3,740	16.3	229	0%	0	0.00%	0%	0	0.00%	70%	0.22%	161
5	100%	18,599	25,388	18,599	18,599	18,599	18,599	4.8	3,458	0%	0	0.00%	0%	0	0.00%	0%	0	0.00%
6	100%	1,853	8,317	1,853	1,853	1,853	1,853	9.9	187	0%	0	0.00%	0%	0	0.00%	0%	0	0.00%
7*	100%	9,714	15,525	9,714	9,714	9,714	9,714	1	9,714	3%	291	0.40%	4%	389	0.53%	100%	0.28%	187
8	100%	10,946	16,047	10,946	10,946	10,946	10,946	3.1	3,531	0%	0	0.00%	0%	0	0.00%	20%	2.68%	1,943
9	100%	1,745	2,012	1,745	1,745	1,745	1,745	16.9	103	0%	0	0.00%	0%	0	0.00%	100%	4.84%	3,531
10	100%	3,782	7,258	3,782	3,782	3,782	3,782	6.5	582	0%	0	0.00%	0%	0	0.00%	100%	0.14%	103
11	100%	6,376	7,317	6,376	6,376	6,376	6,376	7	911	0%	0	0.00%	0%	0	0.00%	100%	0.80%	582
12	100%	6,731	7,304	6,731	6,731	6,731	6,731	4.9	1,374	0%	0	0.00%	0%	0	0.00%	100%	1.25%	911
13	100%	40,930	43,430	40,930	40,930	40,930	40,930	6.7	6,109	0%	0	0.00%	0%	0	0.00%	0%	0.00%	0
14	100%	37,316	40,591	37,316	37,316	37,316	37,316	9	4,148	0%	0	0.00%	0%	0	0.00%	0%	0.00%	0
15	100%	16,633	17,690	16,633	16,633	16,633	16,633	2.5	6,653	0%	0	0.00%	0%	0	0.00%	50%	4.56%	3,327
16	100%	62,474	65,263	62,474	62,474	62,474	62,474	9.7	6,441	0%	0	0.00%	0%	0	0.00%	50%	4.41%	3,220
17	100%	39,102	39,919	39,102	39,102	39,102	39,102	3.7	10,568	0%	0	0.00%	0%	0	0.00%	100%	14.47%	10,568
18	100%	46,080	50,288	46,080	46,080	46,080	46,080	6.2	7,432	0%	0	0.00%	0%	0	0.00%	100%	10.18%	7,432
19	100%	28,254	29,328	28,254	28,254	28,254	28,254	9.2	3,071	0%	0	0.00%	0%	0	0.00%	100%	4.21%	3,071
20	100%	7,602	9,770	7,602	7,602	7,602	7,602	7.4	1,027	0%	0	0.00%	0%	0	0.00%	100%	1.41%	1,027
21	100%	1,392	21,398	1,392	1,392	1,392	1,392	11.2	124	0%	0	0.00%	0%	0	0.00%	100%	0.17%	124
22	100%	28,721	30,372	28,721	28,721	28,721	28,721	13.4	2,143	0%	0	0.00%	0%	0	0.00%	100%	2.94%	2,143
23	100%	2,916	4,611	2,916	2,916	2,916	2,916	18.5	158	0%	0	0.00%	0%	0	0.00%	100%	0.22%	158
24	100%	2,337	2,604	2,337	2,337	2,337	2,337	15.5	151	0%	0	0.00%	0%	0	0.00%	100%	0.21%	151
25	100%	207	231	207	207	207	207	17.8	12	0%	0	0.00%	0%	0	0.00%	100%	0.02%	12
26	100%	19,091	27,014	19,091	19,091	19,091	19,091	22.1	864	0%	0	0.00%	0%	0	0.00%	100%	1.18%	864
27	100%	6,750	7,890	6,750	6,750	6,750	6,750	22.1	305	0%	0	0.00%	0%	0	0.00%	0%	0.00%	0
28	100%	4,759	5,816	4,759	4,759	4,759	4,759	29.8	160	0%	0	0.00%	0%	0	0.00%	100%	0.22%	160
29	100%	2,042	2,773	2,042	2,042	2,042	2,042	28.9	71	0%	0	0.00%	0%	0	0.00%	0%	0.00%	0
		440,862	542,607	440,862	440,862	440,862	440,862		73,022		291	0.40%		389	0.53%		39,874	54.33%
												0.53%				54.33%	39,874	54.33%

Trip Distribution Table

Oxbow Town Center Apts

Sub Area Employment Data:

For determination of Trip Distribution for Proposed Residential Development Trips

2015 and 2025 Data Taken from Mid-Region Council of Governments' 2035

Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

Sub Area I.D.#	% Sub Area In Study	2015			Interpolated Employment for the Year	Employment in Study	Dist. (Mi.)	Employment / Distance	(SqW)			(AS)			(STW)		
		2015	2025	2015					% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
1	100%	12,703	25,695	12,703	12,703	12,703	12.6	1,008	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
2	100%	18,552	22,699	18,552	18,552	18,552	8	2,319	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
3	100%	1,515	1,695	1,515	1,515	1,515	8.9	170	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
4	100%	3,740	4,392	3,740	3,740	3,740	16.3	229	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5	100%	16,599	25,368	16,599	16,599	16,599	4.8	3,458	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6	100%	1,853	8,317	1,853	1,853	1,853	9.9	187	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7*	100%	8,714	15,525	8,714	8,714	8,714	1	9,714	0%	0.00%	0	7%	0.93%	680	17%	2.26%	1,651
8	100%	10,946	16,047	10,946	10,946	10,946	3.1	3,531	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	1,745	2,012	1,745	1,745	1,745	16.9	103	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
10	100%	3,762	7,258	3,762	3,762	3,762	6.5	582	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
11	100%	6,376	7,317	6,376	6,376	6,376	7	911	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
12	100%	6,731	7,304	6,731	6,731	6,731	4.9	1,374	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
13	100%	40,930	43,430	40,930	40,930	40,930	6.7	6,109	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
14	100%	37,316	40,591	37,316	37,316	37,316	9	4,146	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
15	100%	16,633	17,890	16,633	16,633	16,633	2.5	6,653	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
16	100%	62,474	65,263	62,474	62,474	62,474	9.7	6,441	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
17	100%	38,102	39,919	38,102	38,102	38,102	3.7	10,588	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
18	100%	46,080	50,268	46,080	46,080	46,080	6.2	7,432	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
19	100%	28,254	29,328	28,254	28,254	28,254	9.2	3,071	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
20	100%	7,602	9,770	7,602	7,602	7,602	7.4	1,027	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	1,392	21,398	1,392	1,392	1,392	11.2	124	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	28,721	30,372	28,721	28,721	28,721	13.4	2,143	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
23	100%	2,916	4,611	2,916	2,916	2,916	18.5	158	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
24	100%	2,337	2,604	2,337	2,337	2,337	15.5	151	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	207	231	207	207	207	17.8	12	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	19,091	27,014	19,091	19,091	19,091	22.1	864	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	6,750	7,930	6,750	6,750	6,750	22.1	305	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
28	100%	4,759	5,816	4,759	4,759	4,759	29.8	160	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
29	100%	2,042	2,773	2,042	2,042	2,042	28.9	71	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
		440,862	542,607	440,862	440,862	440,862	73,022	73,022	0.00%	0.00%	0	0.00%	0.93%	680	0.93%	2.26%	1,651
																	2,26%

Trip Distribution Table

Oxbow Town Center Apts

Sub Area Employment Data:

For determination of Trip Distribution for Proposed **Residential Development Trips**

2015 and 2025 Data Taken from Mid-Region Council of Governments' 2035

Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

Sub Area I.D.#	% Sub Area In Study	2015 Employment	2025 Employment	Interpolated Employment for the Year	Employment in Study	Dist. (Mi.)	Employment / Distance	(AN)			(QS)			(WW)		
								% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
1	100%	12,703	25,695	12,703	12,703	12.6	1,008	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
2	100%	18,552	22,669	18,552	18,552	8	2,319	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
3	100%	1,515	1,695	1,515	1,515	8.9	170	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
4	100%	3,740	4,392	3,740	3,740	16.3	229	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5	100%	16,599	25,368	16,599	16,599	4.8	3,458	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6	100%	1,853	8,317	1,853	1,853	9.9	187	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7*	100%	9,714	15,525	9,714	9,714	1	9,714	1%	0.13%	97	1%	0.13%	97	8%	0.80%	583
8	100%	10,948	16,047	10,948	10,948	3.1	3,531	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	1,745	2,012	1,745	1,745	16.9	103	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
10	100%	3,782	7,258	3,782	3,782	6.5	582	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
11	100%	6,376	7,317	6,376	6,376	7	911	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
12	100%	6,731	7,304	6,731	6,731	4.9	1,374	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
13	100%	40,930	43,430	40,930	40,930	6.7	6,109	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
14	100%	37,316	40,591	37,316	37,316	9	4,146	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
15	100%	16,633	17,690	16,633	16,633	2.5	6,653	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
16	100%	62,474	65,263	62,474	62,474	9.7	6,441	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
17	100%	38,102	39,919	38,102	38,102	3.7	10,568	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
18	100%	46,080	50,268	46,080	46,080	6.2	7,432	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
19	100%	28,254	29,328	28,254	28,254	9.2	3,071	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
20	100%	7,602	9,770	7,602	7,602	7.4	1,027	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	1,392	21,398	1,392	1,392	11.2	124	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	28,721	30,372	28,721	28,721	13.4	2,143	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
23	100%	2,916	4,611	2,916	2,916	18.5	158	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
24	100%	2,337	2,604	2,337	2,337	15.5	151	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	207	231	207	207	17.8	12	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	19,091	27,014	19,091	19,091	22.1	864	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	6,750	7,930	6,750	6,750	22.1	305	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
28	100%	4,759	5,816	4,759	4,759	28.8	160	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
29	100%	2,042	2,773	2,042	2,042	28.9	71	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
		440,862	542,607	440,862	440,862	73,022		0.13%	0.13%	97	0.13%	0.13%	97	0.13%	0.80%	583

Trip Distribution Table

Oxbow Town Center Apts

Sub Area Employment Data:

For determination of Trip Distribution for Proposed Residential Development Trips

2015 and 2025 Data Taken from Mid-Region Council of Governments' 2035

Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

Sub Area I.D.#	% Sub Area In Study	Employment			Employment In Study	Dist. (Mi.)	Employment / Distance	(QN)			(SWW)		
		2015	2025	Interpolated Employment for the Year				% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
1	100%	12,703	25,695	12,703	12,703	12.8	1,008	0%	0.00%	0	0%	0.00%	0
2	100%	18,552	22,669	18,552	18,552	8	2,319	0%	0.00%	0	0%	0.00%	0
3	100%	1,515	1,695	1,515	1,515	8.9	170	0%	0.00%	0	0%	0.00%	0
4	100%	3,740	4,392	3,740	3,740	16.3	229	0%	0.00%	0	0%	0.00%	0
5	100%	16,599	25,368	16,599	16,599	4.8	3,458	0%	0.00%	0	0%	0.00%	0
6	100%	1,853	8,317	1,853	1,853	9.8	187	0%	0.00%	0	0%	0.00%	0
7*	100%	9,714	15,525	9,714	9,714	1	9,714	1%	0.13%	97	1%	0.13%	97
8	100%	10,946	16,047	10,946	10,946	3.1	3,531	0%	0.00%	0	0%	0.00%	0
9	100%	1,745	2,012	1,745	1,745	16.9	103	0%	0.00%	0	0%	0.00%	0
10	100%	3,782	7,258	3,782	3,782	6.5	582	0%	0.00%	0	0%	0.00%	0
11	100%	6,376	7,317	6,376	6,376	7	911	0%	0.00%	0	0%	0.00%	0
12	100%	6,731	7,304	6,731	6,731	4.9	1,374	0%	0.00%	0	0%	0.00%	0
13	100%	40,930	43,430	40,930	40,930	6.7	6,109	0%	0.00%	0	0%	0.00%	0
14	100%	37,316	40,591	37,316	37,316	9	4,146	0%	0.00%	0	0%	0.00%	0
15	100%	16,633	17,690	16,633	16,633	2.5	6,653	0%	0.00%	0	0%	0.00%	0
16	100%	62,474	65,263	62,474	62,474	9.7	6,441	0%	0.00%	0	0%	0.00%	0
17	100%	39,102	39,919	39,102	39,102	3.7	10,568	0%	0.00%	0	0%	0.00%	0
18	100%	46,080	50,288	46,080	46,080	6.2	7,432	0%	0.00%	0	0%	0.00%	0
19	100%	28,254	28,328	28,254	28,254	9.2	3,071	0%	0.00%	0	0%	0.00%	0
20	100%	7,602	9,770	7,602	7,602	7.4	1,027	0%	0.00%	0	0%	0.00%	0
21	100%	1,392	21,398	1,392	1,392	11.2	124	0%	0.00%	0	0%	0.00%	0
22	100%	28,721	30,372	28,721	28,721	13.4	2,143	0%	0.00%	0	0%	0.00%	0
23	100%	2,916	4,611	2,916	2,916	18.5	158	0%	0.00%	0	0%	0.00%	0
24	100%	2,337	2,604	2,337	2,337	15.5	151	0%	0.00%	0	0%	0.00%	0
25	100%	207	231	207	207	17.8	12	0%	0.00%	0	0%	0.00%	0
26	100%	19,091	27,014	19,091	19,091	22.1	864	0%	0.00%	0	0%	0.00%	0
27	100%	6,750	7,930	6,750	6,750	22.1	305	0%	0.00%	0	0%	0.00%	0
28	100%	4,759	5,816	4,759	4,759	28.8	160	0%	0.00%	0	0%	0.00%	0
29	100%	2,042	2,773	2,042	2,042	28.9	71	0%	0.00%	0	0%	0.00%	0
		440,862	542,607	440,862	440,862		73,022		0.13%	97		0.13%	97
													0.13%

Oxbow Town Center Apartments

(St. Joseph's Dr / Coors Blvd)

Trip Distribution Map (%)

(CN)

39.95

(SvW)

0.13

(QN)

0.13

(SvE)

0.13

(WW)

0.80

(QS)

0.13

WESTERN TRAIL

(WE)

0.13

(AN)

0.13

(StW)

2.26

(AS)

0.93

ATRISCO DR

ST JOSEPH'S DR

(StE)

0.40

(SqW)

0

SEQUOIA RD

54.33

(CS)

(SqE)

0.53

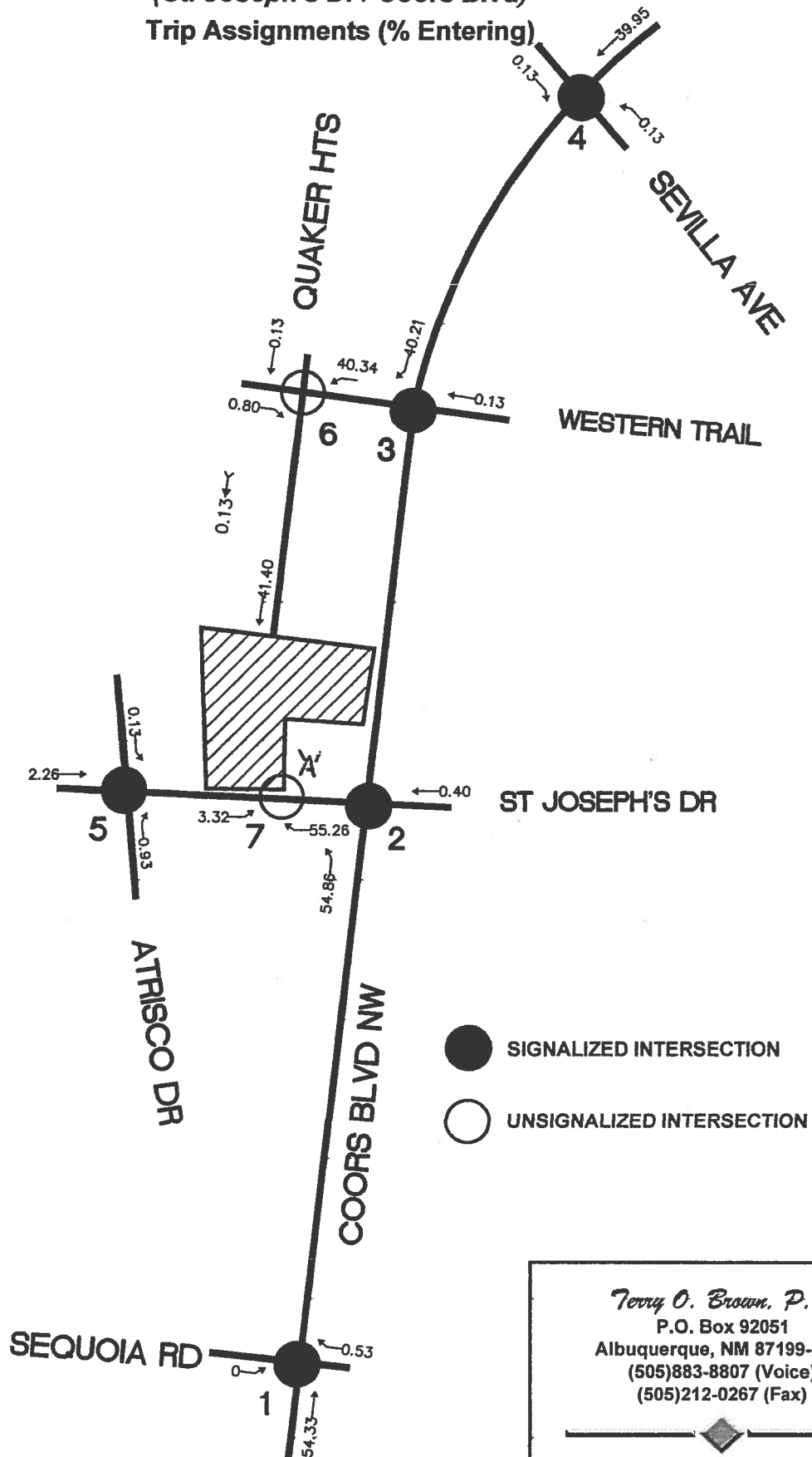
COORS BLVD NW

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(505)883-8807 (Voice)
(505)212-0267 (Fax)

Oxbow Town Center Apartments

(St. Joseph's Dr / Coors Blvd)

Trip Assignments (% Entering)



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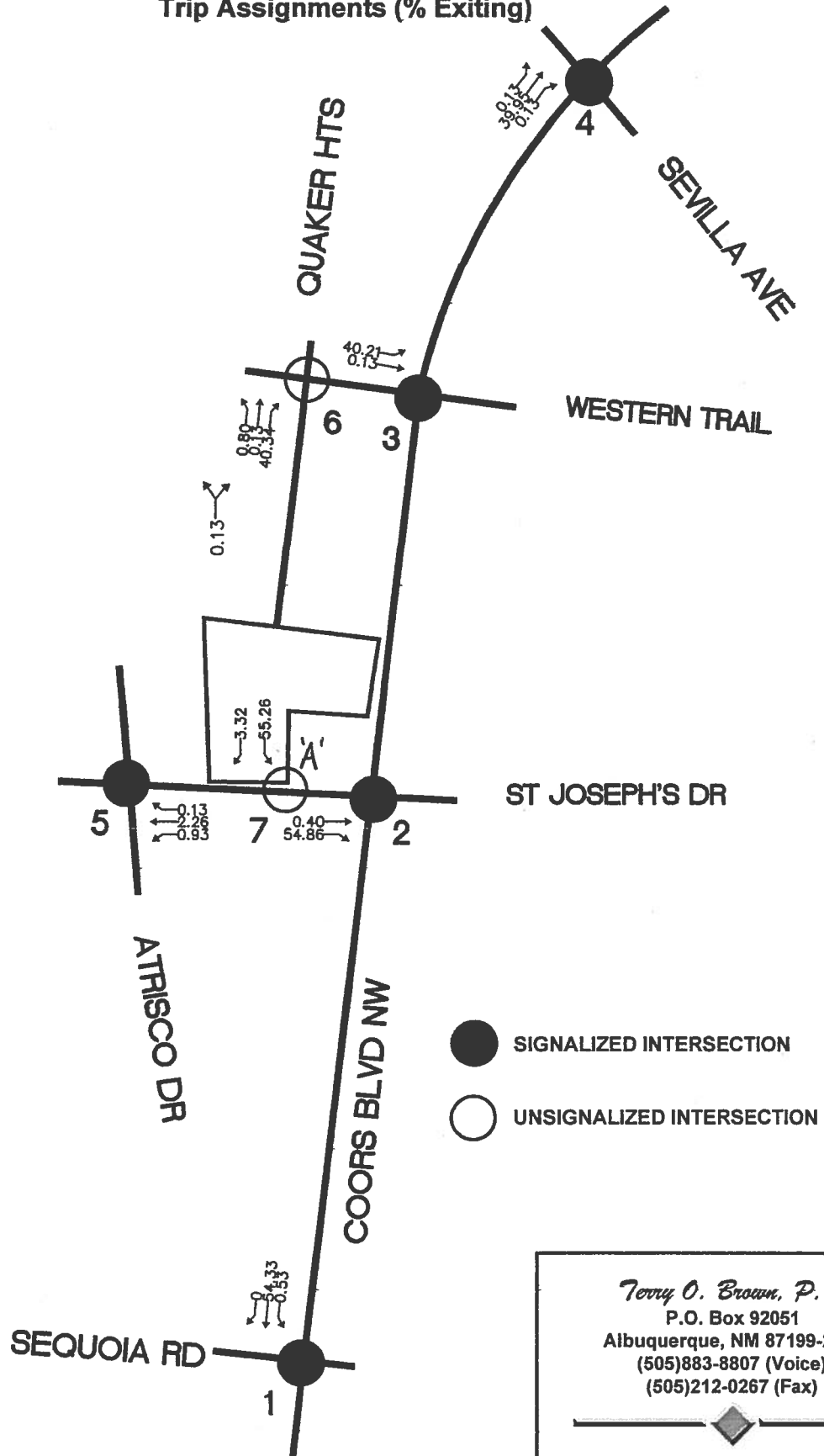
Oxbow Town Center Apartments

(St. Joseph's Dr / Coors Blvd)

Trip Assignments (% Exiting)



NTS



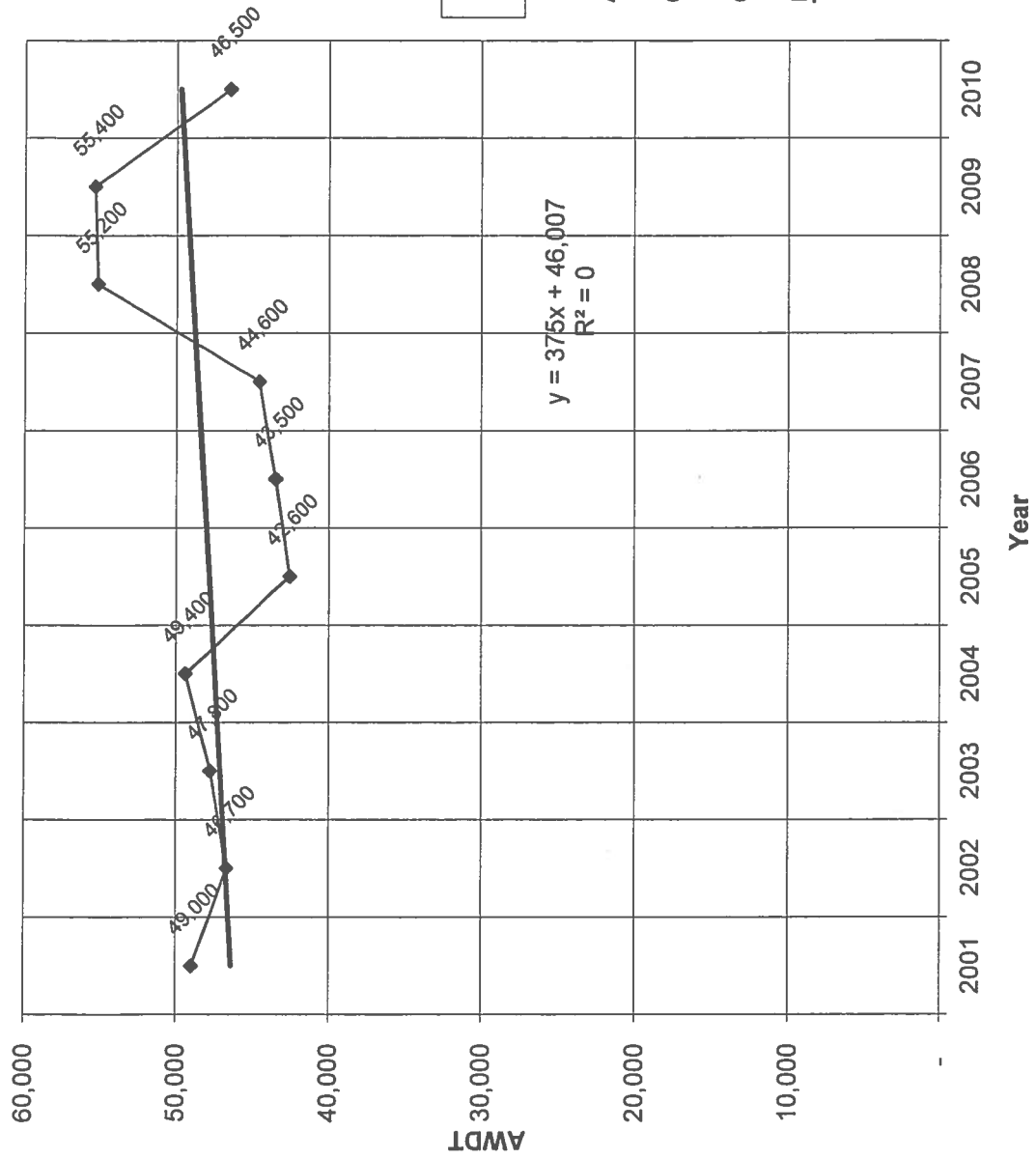
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Oxbow Town Center Apartments **Historic Growth Rate Table**

Traffic Flows from MRCOG Map

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Coors North of Western Trail	49,000	46,700	47,800	49,400	42,600	43,500	44,600	55,200	55,400	46,500
Western Trail West of Coors Blvd	2,200	2,500	2,400	2,400	2,500	5,300	5,500	5,500	5,600	5,600
Coors btwn Western Trail & St Joseph's	48,600	47,100	48,600	50,200	52,500	44,700	45,800	46,300	48,100	48,100
St Joseph's West of Coors Blvd	10,200	10,500	10,700	9,900	10,200	10,400	10,700	8,600	8,600	8,600
Coors btwn St Joseph's & Sequoia Rd	45,500	46,800	46,700	48,200	49,900	52,100	53,400	49,000	49,100	43,500
Sequoia Rd West of Coors Blvd	10,600	10,900	8,700	9,000	9,300	4,200	4,300	4,900	5,000	5,000
Coors Blvd South of Sequoia Rd	60,400	64,700	60,300	58,500	60,600	47,100	48,300	48,700	42,200	42,200

Historic Growth Chart Coors North of Western Trail (2001-2010)



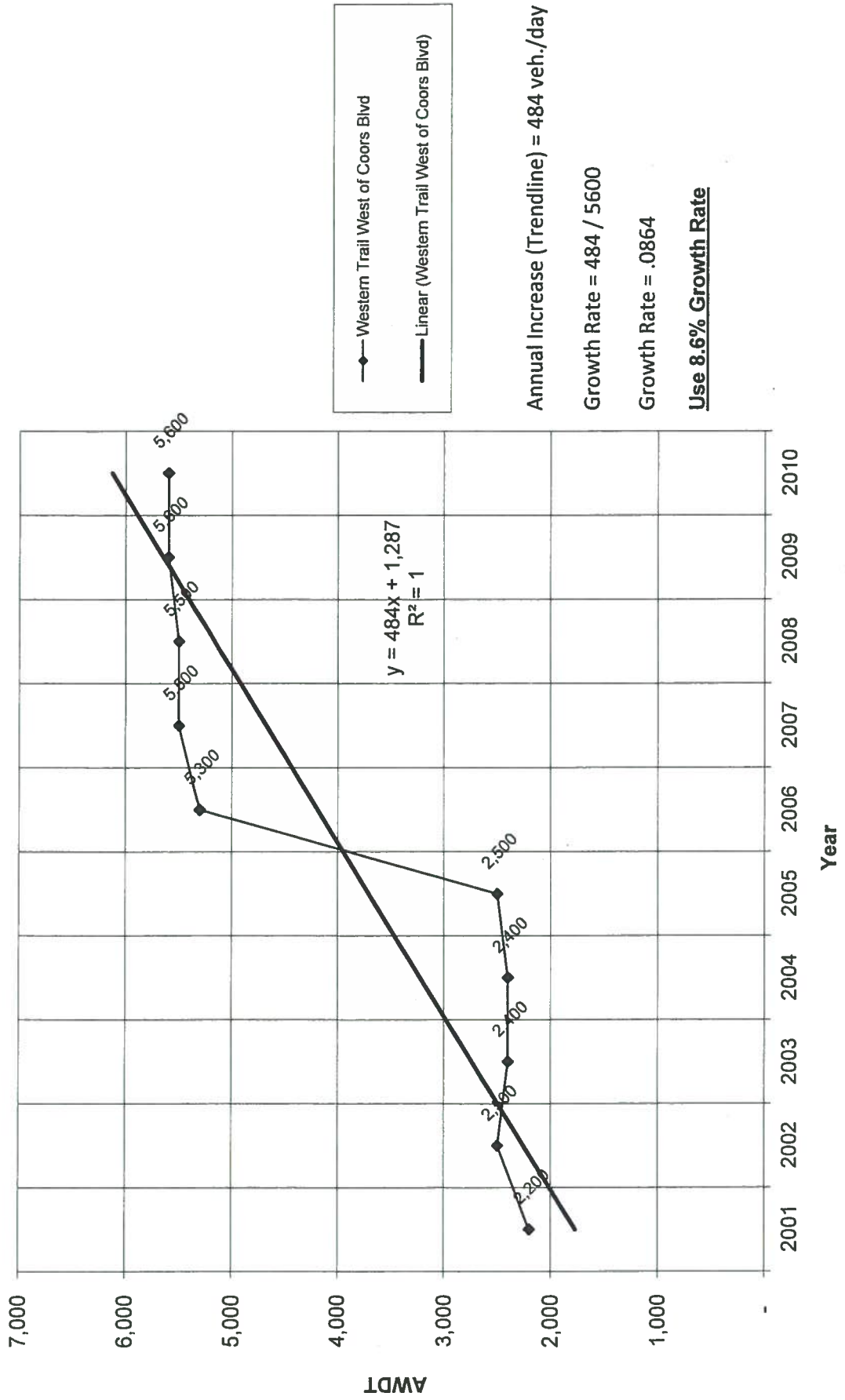
Annual Increase (Trendline) = 375 veh./day

Growth Rate = 375 / 46500

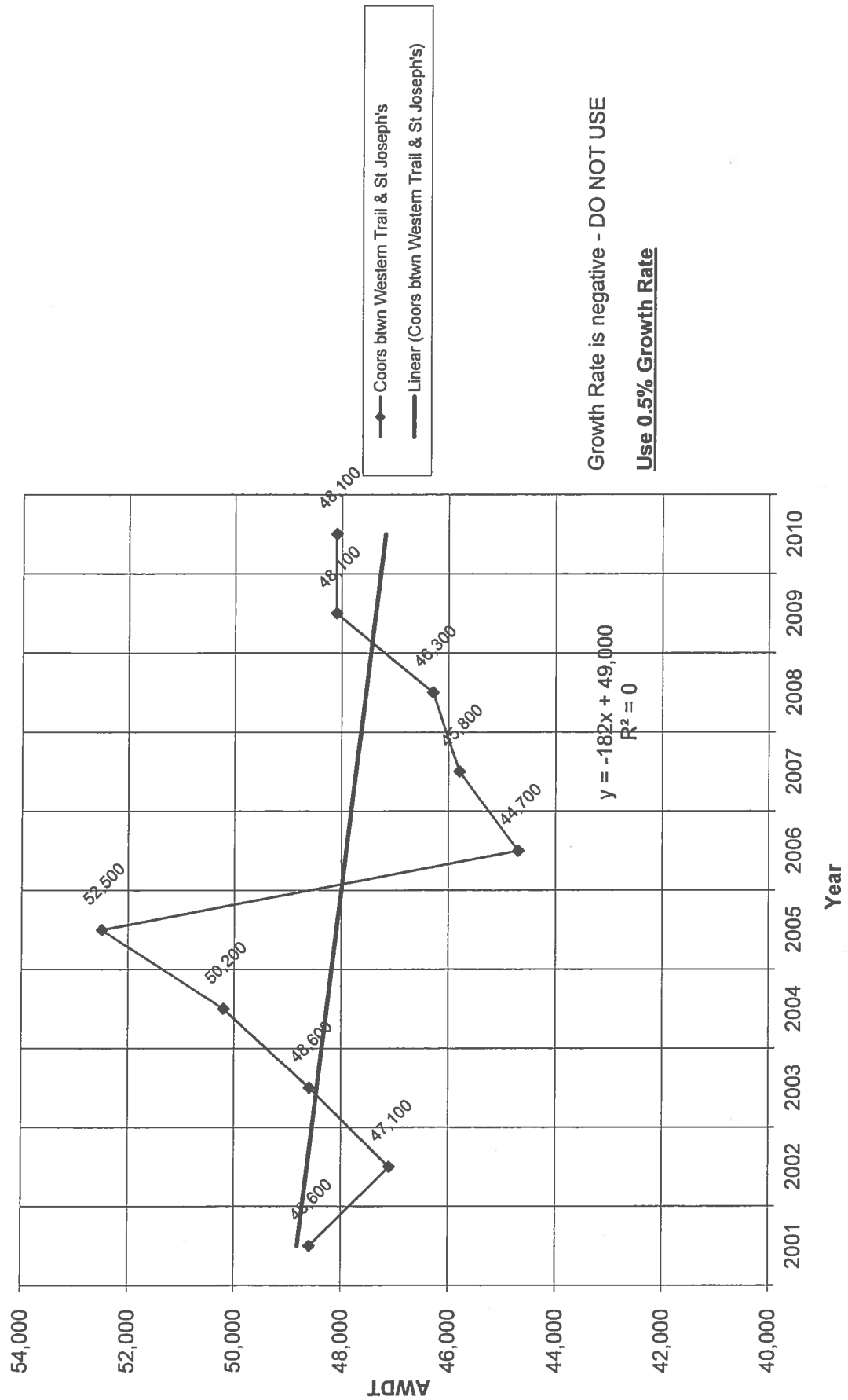
Growth Rate = .0080

Use 0.80%

Historic Growth Chart Western Trail West of Coors Blvd (2001-2010)



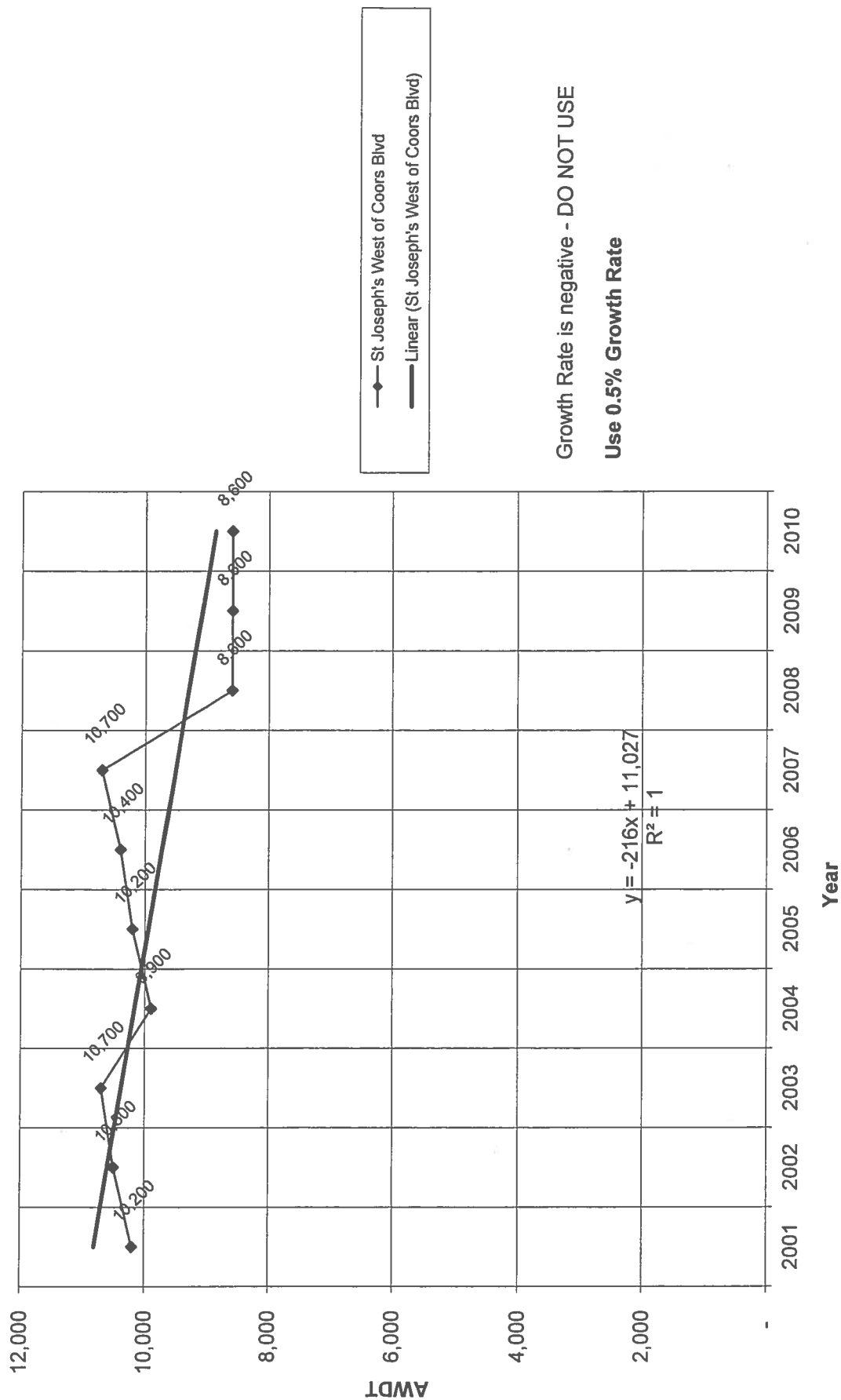
Historic Growth Chart Coors btwn Western Trail & St Joseph's (2001-2010)



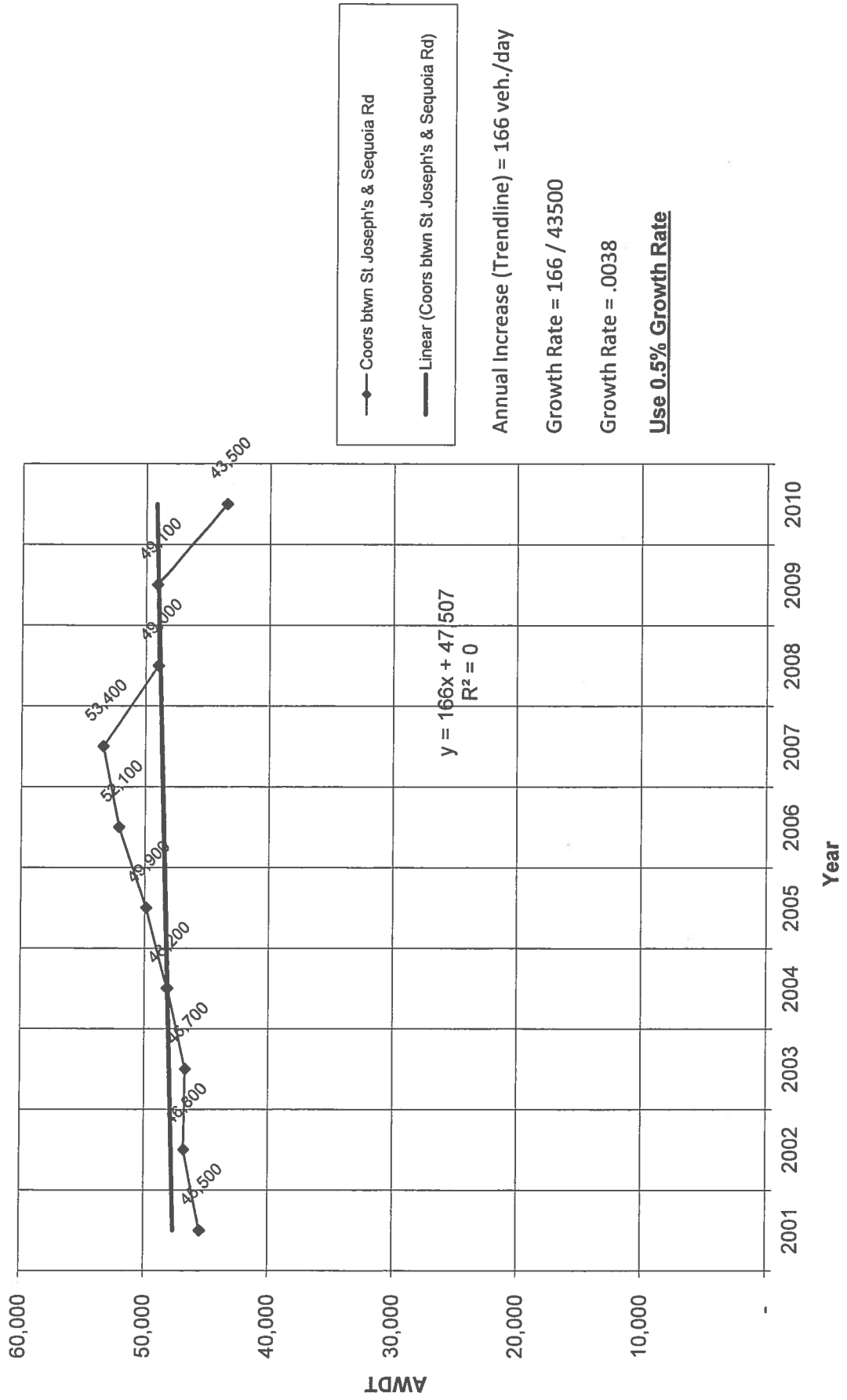
Growth Rate is negative - DO NOT USE

Use 0.5% Growth Rate

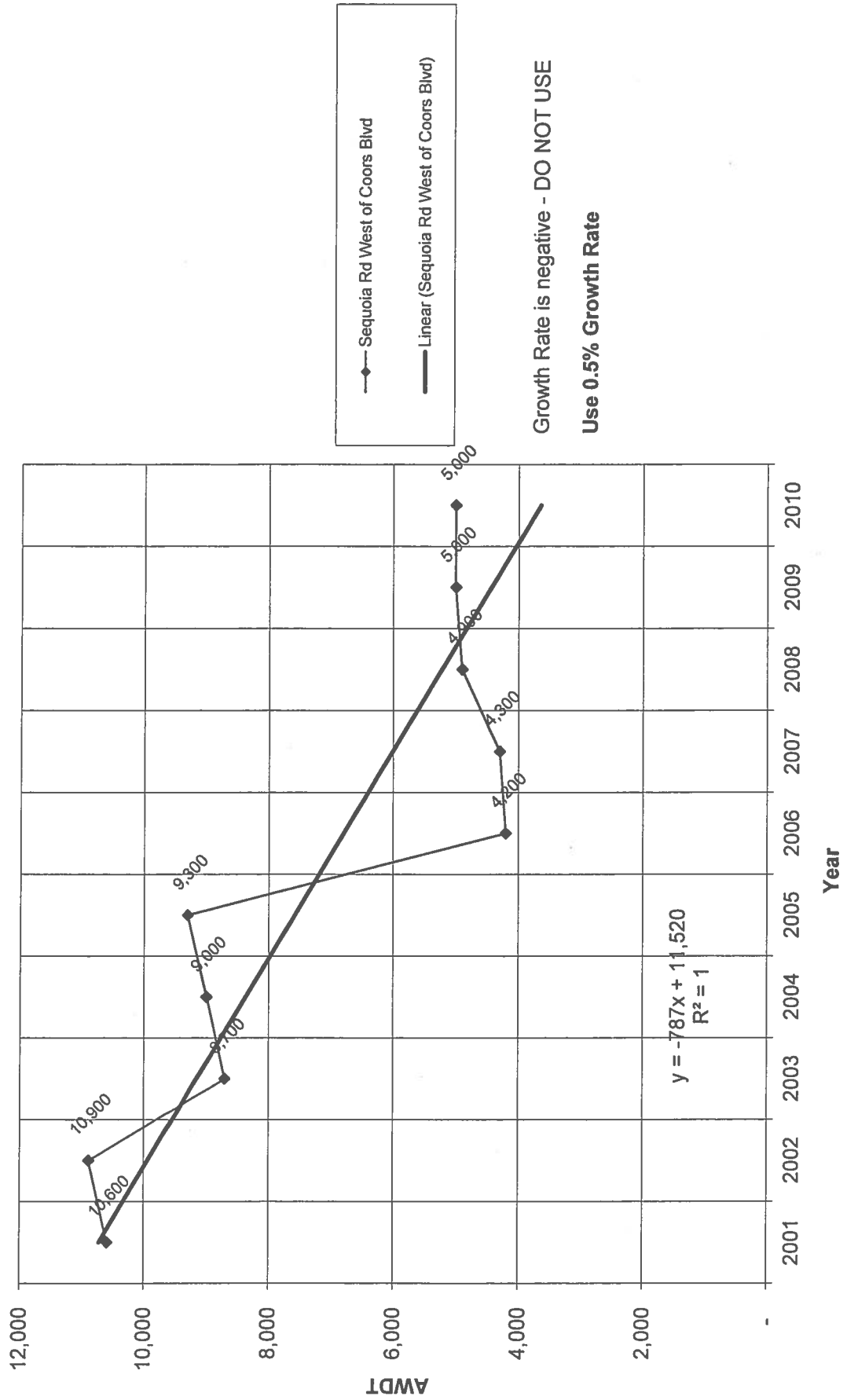
Historic Growth Chart St Joseph's West of Coors Blvd (2001-2010)



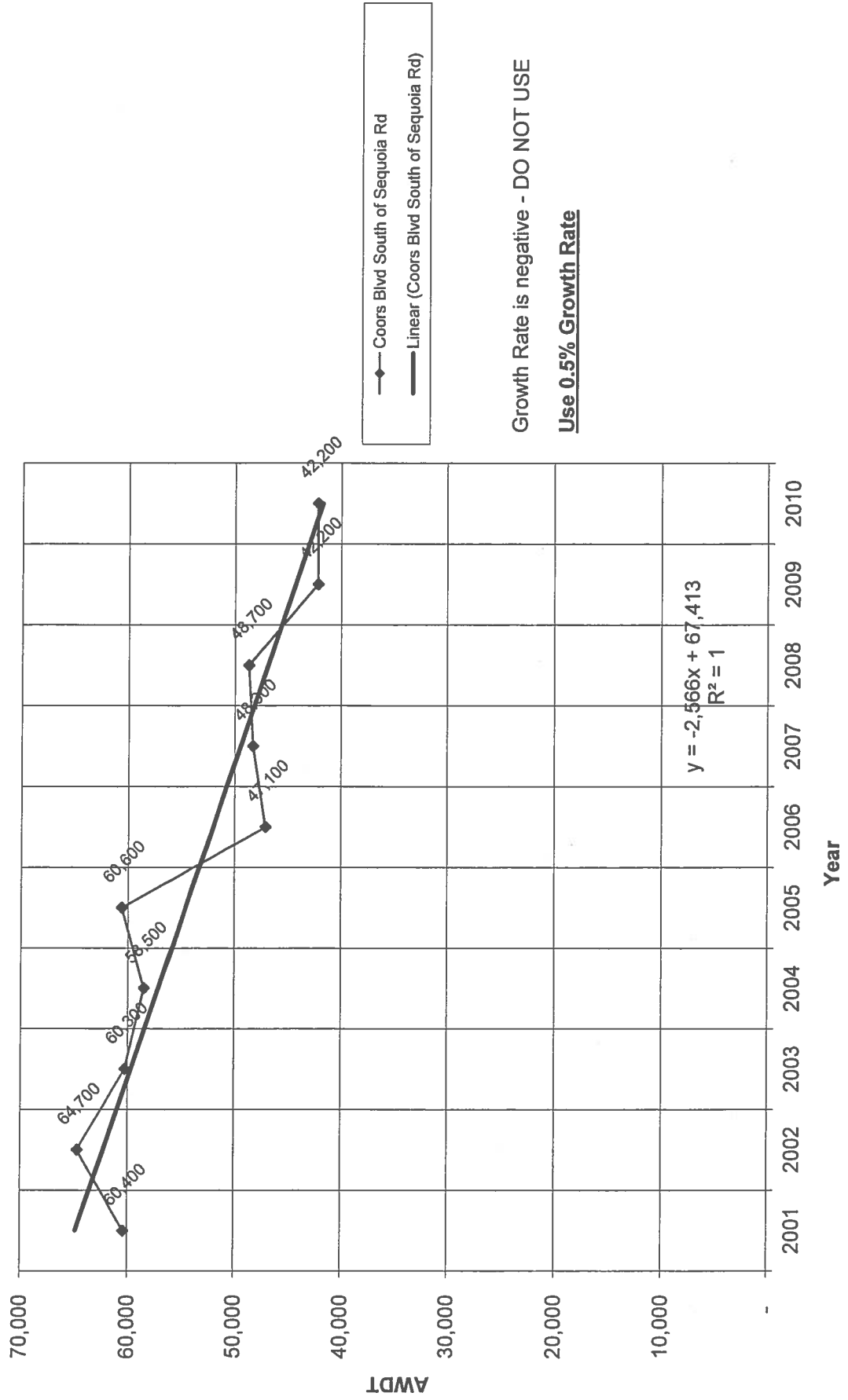
Historic Growth Chart Coors btwn St Joseph's & Sequoia Rd (2001-2010)



Historic Growth Chart Sequoia Rd West of Coors Blvd (2001-2010)



Historic Growth Chart Coors Blvd South of Sequoia Rd (2001-2010)



Oxbow Town Center Apartments

(St. Joseph's Dr / Coors Blvd)

Growth Rate Map (%)

0.80



NTS

QUAKER HEIGHTS

SEVILLA AVE

8.6

WESTERN TRAIL

0.5*

0.5*

ST JOSEPH'S DR

ATRISCO DR

COORS BLVD NW

* Generic growth rate of 0.5% used
where rate is negative or
unavailable

0.5*

0.5*

SEQUOIA RD

0.5*

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Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
Projected Turning Movements SUMMARY
PROPOSED DEVELOPMENT (2013) - 100% Development

INTERSECTION: Summary

Sequoia Rd / Coors Blvd NW													
		0.88			0.77			0.89			0.93		PHF
(1)	Eastbound (Sequoia Rd)			Westbound (Sequoia Rd)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	57	35	145	73	28	16	51	1,114	38	23	2,233	46	
2013 (NO BUILD - A.M.)	57	35	146	73	28	16	51	1,120	38	23	2,244	46	
2013 (BUILD - A.M.)	57	35	146	73	28	16	51	1,135	38	24	2,298	46	
		0.88			0.91			0.94			0.91		PHF
	Eastbound (Sequoia Rd)			Westbound (Sequoia Rd)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	119	98	140	139	100	46	146	2,459	58	55	1,471	32	
2013 (NO BUILD - P.M.)	120	98	141	140	101	46	147	2,471	58	55	1,478	32	
2013 (BUILD - P.M.)	120	98	141	140	101	47	147	2,528	58	55	1,509	32	
St Joseph's Dr / Coors Blvd NW													
		0.75			0.75			0.87			0.92		PHF
(2)	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	197	32	94	88	11	48	28	1,011	131	81	2,254	76	
2013 (NO BUILD - A.M.)	198	32	94	88	11	48	28	1,016	132	81	2,265	76	
2013 (BUILD - A.M.)	198	32	149	88	11	48	43	1,016	132	81	2,265	76	
		0.94			0.83			0.91			0.95		PHF
	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	178	17	61	77	14	69	123	2,677	60	72	1,607	259	
2013 (NO BUILD - P.M.)	179	17	61	77	14	69	124	2,690	60	72	1,615	260	
2013 (BUILD - P.M.)	179	17	92	77	14	69	181	2,690	60	72	1,615	260	
Western Trail / Coors Blvd NW													
		0.80			0.75			0.87			0.87		PHF
(3)	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	155	7	211	58	7	22	63	1,230	15	9	1,985	39	
2013 (NO BUILD - A.M.)	168	8	229	58	7	22	63	1,236	15	9	1,995	39	
2013 (BUILD - A.M.)	208	8	229	58	7	22	63	1,236	15	9	1,995	50	
		0.77			0.83			0.91			0.96		PHF
	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	102	2	66	21	9	20	240	2,487	39	26	1,733	165	
2013 (NO BUILD - P.M.)	111	2	72	21	9	20	241	2,499	39	26	1,742	166	
2013 (BUILD - P.M.)	134	2	72	21	9	20	241	2,499	39	26	1,742	208	
Sevilla Ave / Coors Blvd NW													
		0.75			0.92			0.92			0.89		PHF
(4)	Eastbound (Sevilla Ave)			Westbound (Sevilla Ave)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	21	1	23	8	0	36	6	1,501	6	9	2,075	5	
2013 (NO BUILD - A.M.)	21	1	23	8	0	36	6	1,509	6	9	2,092	5	
2013 (BUILD - A.M.)	21	1	23	8	0	36	6	1,549	6	9	2,103	5	
		0.75			0.91			0.88			0.95		PHF
	Eastbound (Sevilla Ave)			Westbound (Sevilla Ave)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	36	0	30	2	4	23	55	2,531	11	28	1,955	59	
2013 (NO BUILD - P.M.)	36	0	30	2	4	23	55	2,544	11	28	1,971	59	
2013 (BUILD - P.M.)	36	0	30	2	4	23	55	2,567	11	28	2,013	59	

Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)

Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2013) - 100% Development

INTERSECTION: Summary

St Joseph's Dr / Atrisco Rd

(5)

3.0% Truck

Existing (2012)

2013 (NO BUILD - A.M.)

2013 (BUILD - A.M.)

0.91			0.75			0.88			0.82			PHF
Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Atrisco Rd)			Southbound (Atrisco Rd)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
35	305	56	39	90	25	13	72	34	47	391	23	
35	307	56	39	90	25	13	72	34	47	393	23	
35	308	56	40	92	25	13	72	34	47	393	23	

0.86			0.87			0.84			0.95			PHF
Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Atrisco Rd)			Southbound (Atrisco Rd)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
44	172	46	34	301	70	62	325	52	22	161	29	
44	173	46	34	303	70	62	327	52	22	162	29	
44	175	46	35	304	70	62	327	53	22	162	29	

Western Trail / Quaker Heights

(6)

3.0% Truck

Existing (2012)

2013 (NO BUILD - A.M.)

2013 (BUILD - A.M.)

0.90			0.78			0.86			0.75			PHF
Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Quaker Heights)			Southbound (Quaker Heights)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	363	3	5	103	5	2	2	20	22	4	4	
0	365	3	5	104	5	2	2	20	22	4	4	
0	365	3	16	104	5	3	2	60	22	4	4	

0.87			0.90			0.75			0.75			PHF
Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Quaker Heights)			Southbound (Quaker Heights)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	171	0	13	347	17	10	2	10	11	2	1	
2	172	0	13	349	17	10	2	10	11	2	1	
2	172	1	55	349	17	10	2	33	11	2	1	

St Joseph's Dr / Quaker Heights

(7)

3.0% Truck

Existing (2012)

2013 (NO BUILD - A.M.)

2013 (BUILD - A.M.)

0.75			0.75			0.85			0.85			PHF
Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Quaker Heights)			Southbound (Quaker Heights)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	323	0	0	115	0	0	0	0	0	0	0	
0	325	0	0	116	0	0	0	0	0	0	0	
1	325	0	0	116	15	0	0	0	55	0	3	

0.94			0.94			0.85			0.85			PHF
Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Quaker Heights)			Southbound (Quaker Heights)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	256	0	0	396	0	0	0	0	0	0	0	
0	257	0	0	398	0	0	0	0	0	0	0	
3	257	0	0	398	57	0	0	0	31	0	2	

Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
Projected Turning Movements Worksheet
Sequoia Rd / Coors Blvd NW

INTERSECTION : E-W Street: Sequoia Rd (1)
 N-S Street: Coors Blvd NW
 Year of Existing Counts 2012
 Implementation Year 2013
 Growth Rates

	0.50%			0.50%			0.50%			0.50%		
	Eastbound (Sequoia Rd)			Westbound (Sequoia Rd)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	57	35	145	73	28	16	51	1,114	38	23	2,233	46
Background Traffic Growth	0	0	1	0	0	0	0	6	0	0	11	0
Subtotal (NO BUILD - A.M.)	57	35	146	73	28	16	51	1,120	38	23	2,244	46
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.53%	0.00%	54.33%	0.00%	0.00%	0.00%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.53%	54.33%	0.00%
Total Trips Generated	0	0	0	0	0	0	0	15	0	1	54	0
Total AM Peak Hour BUILD Volumes	57	35	146	73	28	16	51	1,135	38	24	2,298	46

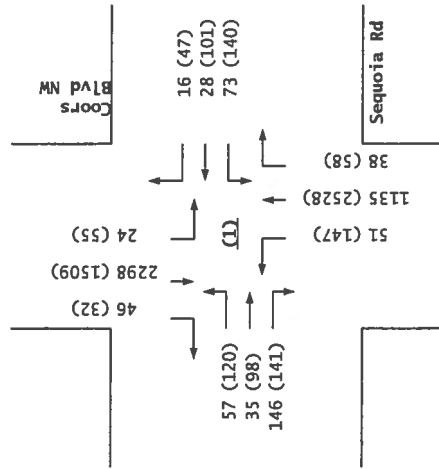
	Eastbound (Sequoia Rd)			Westbound (Sequoia Rd)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	119	98	140	139	100	46	146	2,459	58	55	1,471	32
Background Traffic Growth	1	0	1	1	1	0	1	12	0	0	7	0
Subtotal (NO BUILD - P.M.)	120	98	141	140	101	46	147	2,471	58	55	1,478	32
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.53%	0.00%	54.33%	0.00%	0.00%	0.00%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.53%	54.33%	0.00%
Total Trips Generated	0	0	0	0	0	1	0	57	0	0	31	0
Total PM Peak Hour BUILD Volumes	120	98	141	140	101	47	147	2,528	58	55	1,509	32

Number of Residential Trips Generated

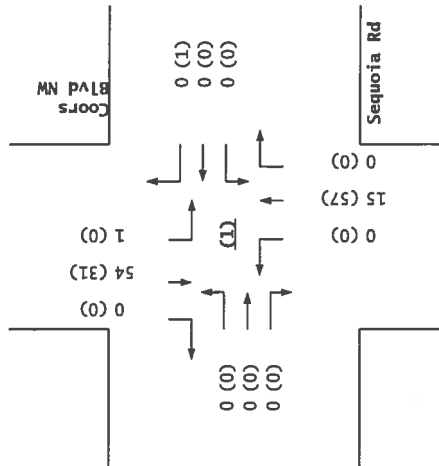
Entering	28	100	A.M.	100% Residential Development
Exiting	104	57	P.M.	

	Eastbound (Sequoia Rd)			Westbound (Sequoia Rd)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2012 AM Peak Hr. Volumes	57	35	145	73	28	16	51	1,114	38	23	2,233	46
2012 PM Peak Hr. Volumes	119	98	140	139	100	46	146	2,459	58	55	1,471	32

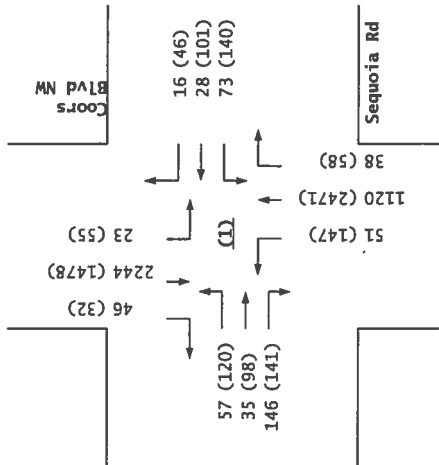
2013
BUILD



Trips



2013
NO BUILD



Sequoia Rd / Coors Blvd NW

Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)

Projected Turning Movements Worksheet

St Joseph's Dr / Coors Blvd NW**INTERSECTION :**E-W Street: **St Joseph's Dr** (2)N-S Street: **Coors Blvd NW**

Year of Existing Counts

2012

Implementation Year

2013

Growth Rates

0.50%

0.50%

0.50%

0.50%

Existing Volumes

Background Traffic Growth

Subtotal (NO BUILD - A.M.)

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

Total AM Peak Hour BUILD Volumes

Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
197	32	94	88	11	48	28	1,011	131	81	2,254	76
1	0	0	0	0	0	0	5	1	0	11	0
198	32	94	88	11	48	28	1,016	132	81	2,265	76
0.00%	0.00%	0.00%	0.00%	0.40%	0.00%	54.86%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	0.40%	54.86%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	0	55	0	0	0	15	0	0	0	0	0
198	32	149	88	11	48	43	1,016	132	81	2,265	76

Existing Volumes

Background Traffic Growth

Subtotal (NO BUILD - P.M.)

Percent Residential Trips Generated(Entering)

Percent Residential Trips Generated(Exiting)

Total Trips Generated

Total PM Peak Hour BUILD Volumes

Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
178	17	61	77	14	69	123	2,677	60	72	1,607	259
1	0	0	0	0	0	1	13	0	0	8	1
179	17	61	77	14	69	124	2,690	60	72	1,615	260
0.00%	0.00%	0.00%	0.00%	0.40%	0.00%	54.86%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	0.40%	54.86%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	0	31	0	0	0	57	0	0	0	0	0
179	17	92	77	14	69	181	2,690	60	72	1,615	260

Number of Residential Trips Generated

Entering

Exiting

28

100

A.M.

100% Residential Development

104

57

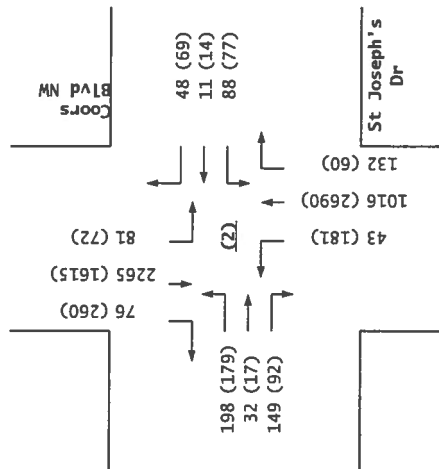
P.M.

2012 AM Peak Hr. Volumes

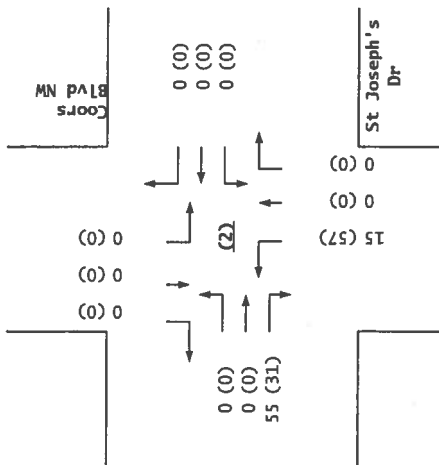
2012 PM Peak Hr. Volumes

Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
197	32	94	88	11	48	28	1,011	131	81	2,254	76
178	17	61	77	14	69	123	2,677	60	72	1,607	259

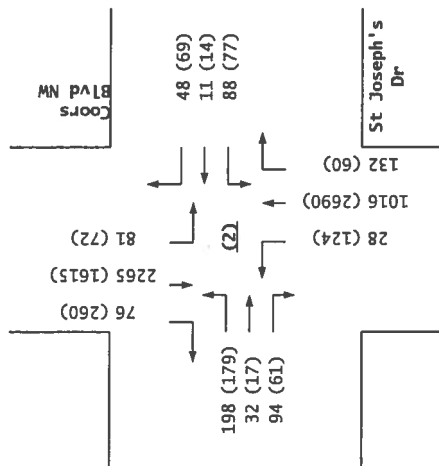
2013
BUILD



Trips



2013
NO BUILD



St Joseph's Dr / Coors Blvd NW

Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
Projected Turning Movements Worksheet
Western Trail / Coors Blvd NW

INTERSECTION : E-W Street: Western Trail (3)
 N-S Street: Coors Blvd NW
 Year of Existing Counts 2012
 Implementation Year 2013

	8.60%			0.50%			0.50%			0.50%		
	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	155	7	211	58	7	22	63	1,230	15	9	1,985	39
Background Traffic Growth	13	1	18	0	0	0	0	6	0	0	10	0
Subtotal (NO BUILD - A.M.)	168	8	229	58	7	22	63	1,236	15	9	1,995	39
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.21%
Percent Residential Trips Generated(Exiting)	40.21%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	40	0	0	0	0	0	0	0	0	0	0	11
Total AM Peak Hour BUILD Volumes	208	8	229	58	7	22	63	1,236	15	9	1,995	50

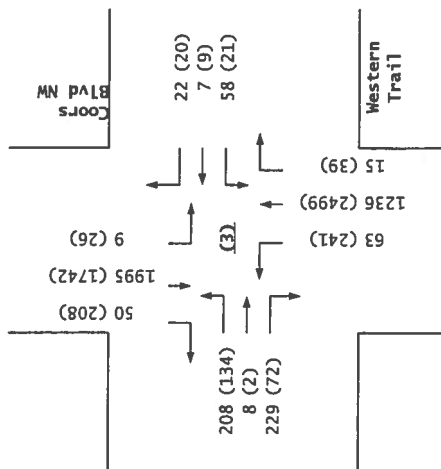
	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	102	2	66	21	9	20	240	2,487	39	26	1,733	165
Background Traffic Growth	9	0	6	0	0	0	1	12	0	0	9	1
Subtotal (NO BUILD - P.M.)	111	2	72	21	9	20	241	2,499	39	26	1,742	166
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.21%
Percent Residential Trips Generated(Exiting)	40.21%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	23	0	0	0	0	0	0	0	0	0	0	42
Total PM Peak Hour BUILD Volumes	134	2	72	21	9	20	241	2,499	39	26	1,742	208

Number of Residential Trips Generated

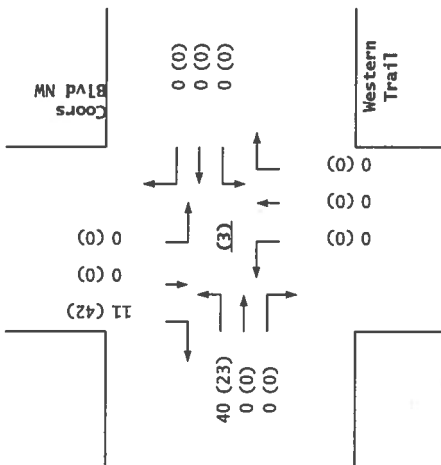
Entering	28	100	A.M.	100% Residential Development
Exiting	104	57	P.M.	

	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2012 AM Peak Hr. Volumes	155	7	211	58	7	22	63	1,230	15	9	1,985	39
2012 PM Peak Hr. Volumes	102	2	66	21	9	20	240	2,487	39	26	1,733	165

2013
BUILD

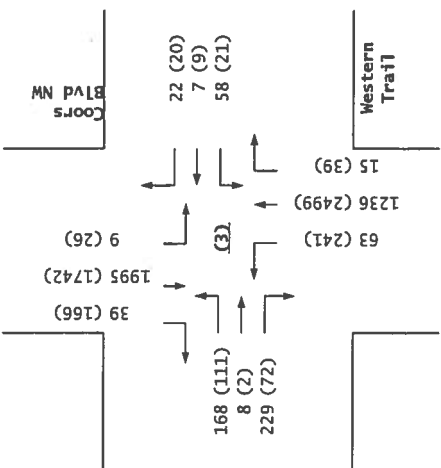


Trips



Western Trail / Coors Blvd NW

2013
NO BUILD



Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
Projected Turning Movements Worksheet
Sevilla Ave / Coors Blvd NW

INTERSECTION : E-W Street: **Sevilla Ave** (4)
 N-S Street: **Coors Blvd NW**

Year of Existing Counts **2012**
 Implementation Year **2013**

	0.50%			0.50%			0.50%			0.80%		
	Eastbound (Sevilla Ave)			Westbound (Sevilla Ave)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	21	1	23	8	0	36	6	1,501	6	9	2,075	5
Background Traffic Growth	0	0	0	0	0	0	0	8	0	0	17	0
Subtotal (NO BUILD - A.M.)	21	1	23	8	0	36	6	1,509	6	9	2,092	5
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.13%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	39.95%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.13%	39.95%	0.13%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	0	0	0	0	40	0	0	11	0
Total AM Peak Hour BUILD Volumes	21	1	23	8	0	36	6	1,549	6	9	2,103	5

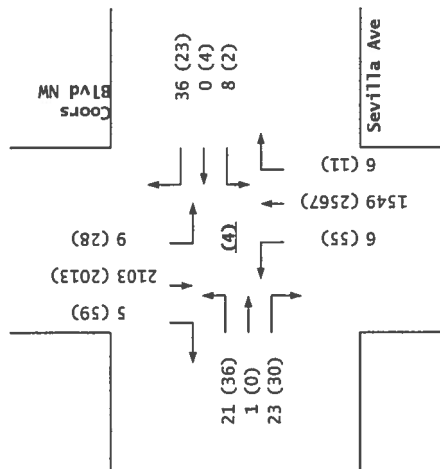
	Eastbound (Sevilla Ave)			Westbound (Sevilla Ave)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	36	0	30	2	4	23	55	2,531	11	28	1,955	59
Background Traffic Growth	0	0	0	0	0	0	0	13	0	0	16	0
Subtotal (NO BUILD - P.M.)	36	0	30	2	4	23	55	2,544	11	28	1,971	59
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.13%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	39.95%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.13%	39.95%	0.13%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	0	0	0	0	23	0	0	42	0
Total PM Peak Hour BUILD Volumes	36	0	30	2	4	23	55	2,567	11	28	2,013	59

Number of Residential Trips Generated

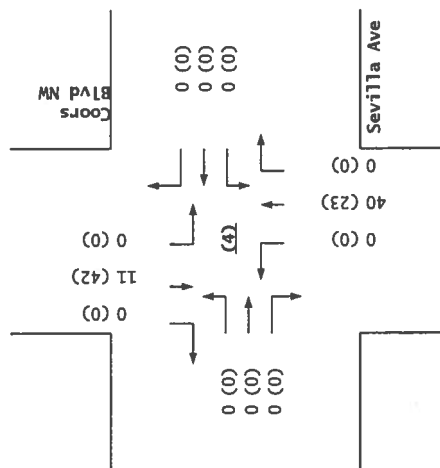
Entering	28	100	A.M.	100% Residential Development
Exiting	104	57	P.M.	

	Eastbound (Sevilla Ave)			Westbound (Sevilla Ave)			Northbound (Coors Blvd NW)			Southbound (Coors Blvd NW)		
2012 AM Peak Hr. Volumes	21	1	23	8	0	36	6	1,501	6	9	2,075	5
2012 PM Peak Hr. Volumes	36	0	30	2	4	23	55	2,531	11	28	1,955	59

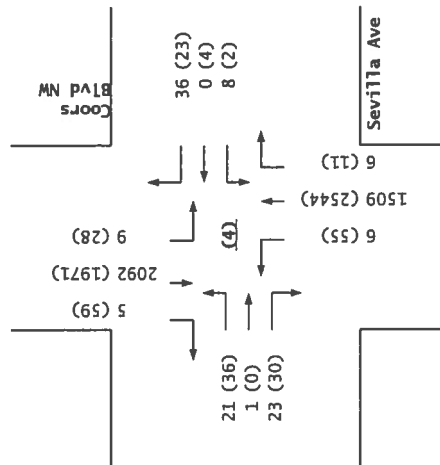
2013
BUILD



Trips



2013
NO BUILD



Sevilla Ave / Coors Blvd NW

Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
 Projected Turning Movements Worksheet
St Joseph's Dr / Atrisco Rd

INTERSECTION : E-W Street: **St Joseph's Dr** (5)

N-S Street: **Atrisco Rd**

Year of Existing Counts **2012**

Implementation Year **2013**

	0.50%			0.50%			0.50%			0.50%		
	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Atrisco Rd)			Southbound (Atrisco Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	35	305	56	39	90	25	13	72	34	47	391	23
Background Traffic Growth	0	2	0	0	0	0	0	0	0	0	2	0
Subtotal (NO BUILD - A.M.)	35	307	56	39	90	25	13	72	34	47	393	23
Percent Residential Trips Generated(Entering)	0.00%	2.26%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.93%	0.13%	0.00%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.93%	2.26%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	1	0	1	2	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	35	308	56	40	92	25	13	72	34	47	393	23

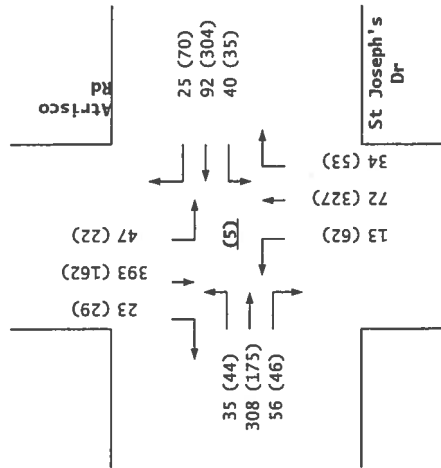
	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Atrisco Rd)			Southbound (Atrisco Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	44	172	46	34	301	70	62	325	52	22	161	29
Background Traffic Growth	0	1	0	0	2	0	0	2	0	0	1	0
Subtotal (NO BUILD - P.M.)	44	173	46	34	303	70	62	327	52	22	162	29
Percent Residential Trips Generated(Entering)	0.00%	2.26%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.93%	0.13%	0.00%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.93%	2.26%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	2	0	1	1	0	0	0	1	0	0	0
Total PM Peak Hour BUILD Volumes	44	175	46	35	304	70	62	327	53	22	162	29

Number of Residential Trips Generated

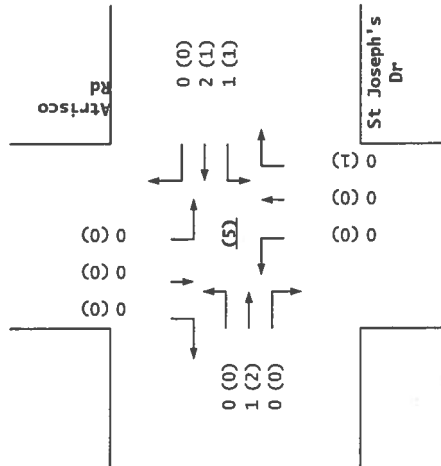
Entering	Exiting		
28	100	A.M.	100% Residential Development
104	57	P.M.	

	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Atrisco Rd)			Southbound (Atrisco Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2012 AM Peak Hr. Volumes	35	305	56	39	90	25	13	72	34	47	391	23
2012 PM Peak Hr. Volumes	44	172	46	34	301	70	62	325	52	22	161	29

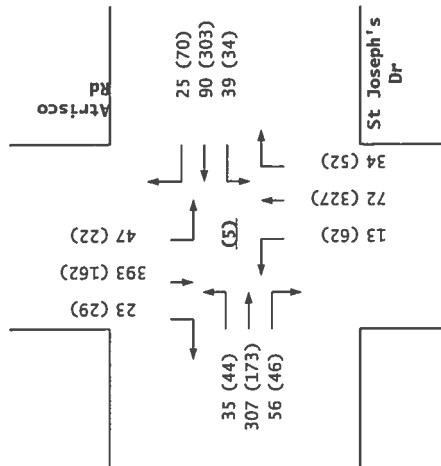
2013
BUILD



Trips



2013
NO BUILD



St Joseph's Dr / Atrisco Rd

Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)
Projected Turning Movements Worksheet
Western Trail / Quaker Heights

INTERSECTION: E-W Street: **Western Trail** (6)

N-S Street: **Quaker Heights**

Year of Existing Counts **2012**

Implementation Year **2013**

Growth Rates

	0.50%			0.50%			0.50%			0.50%		
	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Quaker Heights)			Southbound (Quaker Heights)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	363	3	5	103	5	2	2	20	22	4	4
Background Traffic Growth	0	2	0	0	1	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	0	365	3	5	104	5	2	2	20	22	4	4
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.80%	40.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.13%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.80%	0.13%	40.34%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	11	0	0	1	0	40	0	0	0
Total AM Peak Hour BUILD Volumes	0	365	3	16	104	5	3	2	60	22	4	4

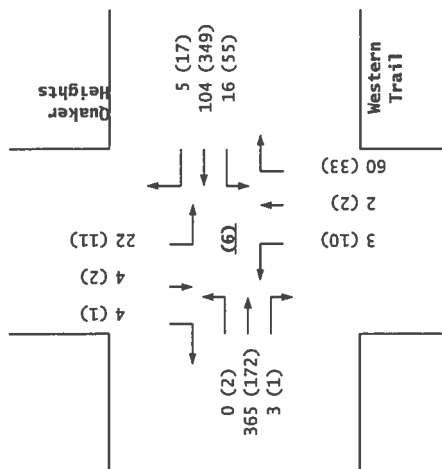
	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Quaker Heights)			Southbound (Quaker Heights)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	2	171	0	13	347	17	10	2	10	11	2	1
Background Traffic Growth	0	1	0	0	2	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	2	172	0	13	349	17	10	2	10	11	2	1
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.80%	40.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.13%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.80%	0.13%	40.34%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	1	42	0	0	0	0	23	0	0	0
Total PM Peak Hour BUILD Volumes	2	172	1	55	349	17	10	2	33	11	2	1

Number of Residential Trips Generated

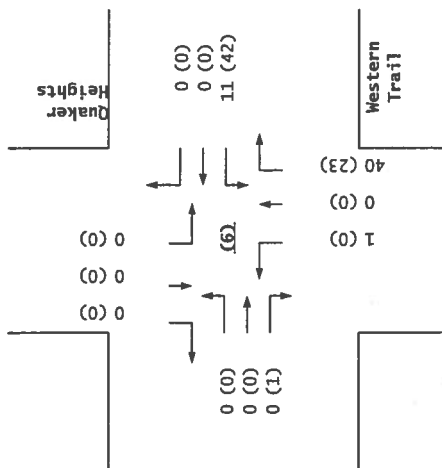
Entering	28	100	A.M.	100% Residential Development
Exiting	104	57	P.M.	

	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Quaker Heights)			Southbound (Quaker Heights)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2012 AM Peak Hr. Volumes	0	363	3	5	103	5	2	2	20	22	4	4
2012 PM Peak Hr. Volumes	2	171	0	13	347	17	10	2	10	11	2	1

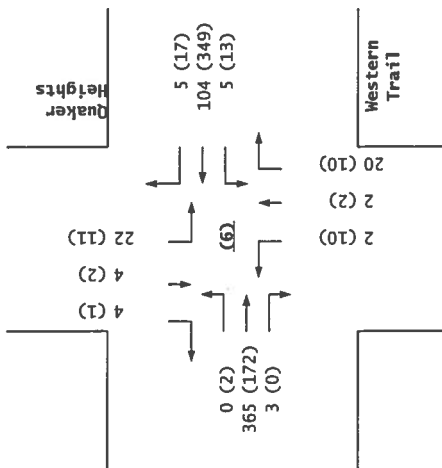
2013
BUILD



Trips



2013
NO BUILD



Western Trail / Quaker Heights

Oxbow Town Center Apartments (St Joseph's Dr / Coors Blvd)

Projected Turning Movements Worksheet

St Joseph's Dr / Quaker Heights

INTERSECTION : E-W Street: **St Joseph's Dr** (7)

N-S Street: **Quaker Heights**

Year of Existing Counts **2012**

Implementation Year **2013**

Growth Rates

	0.50%			0.50%			0.50%			0.50%		
	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Quaker Heights)			Southbound (Quaker Heights)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	323	0	0	115	0	0	0	0	0	0	0
Background Traffic Growth	0	2	0	0	1	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	0	325	0	0	116	0	0	0	0	0	0	0
Percent Residential Trips Generated(Entering)	3.32%	0.00%	0.00%	0.00%	0.00%	55.26%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	55.26%	0.00%	3.32%
Total Trips Generated	1	0	0	0	0	15	0	0	0	55	0	3
Total AM Peak Hour BUILD Volumes	1	325	0	0	116	15	0	0	0	55	0	3

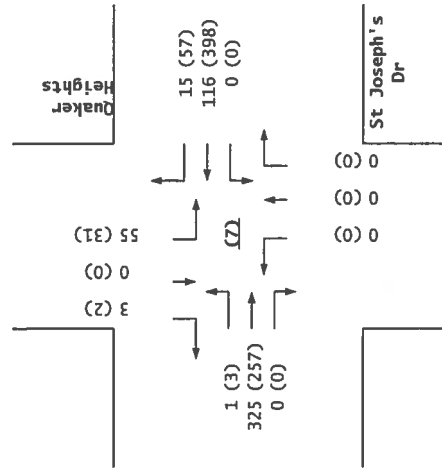
	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Quaker Heights)			Southbound (Quaker Heights)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	256	0	0	396	0	0	0	0	0	0	0
Background Traffic Growth	0	1	0	0	2	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	0	257	0	0	398	0	0	0	0	0	0	0
Percent Residential Trips Generated(Entering)	3.32%	0.00%	0.00%	0.00%	0.00%	55.26%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	55.26%	0.00%	3.32%
Total Trips Generated	3	0	0	0	0	57	0	0	0	31	0	2
Total PM Peak Hour BUILD Volumes	3	257	0	0	398	57	0	0	0	31	0	2

Number of Residential Trips Generated

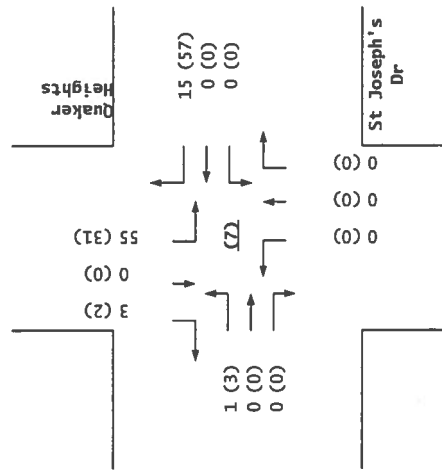
Entering	28	100	A.M.	100% Residential Development
Exiting	104	57	P.M.	

	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Quaker Heights)			Southbound (Quaker Heights)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2012 AM Peak Hr. Volumes	0	323	0	0	115	0	0	0	0	0	0	0
2012 PM Peak Hr. Volumes	0	256	0	0	396	0	0	0	0	0	0	0

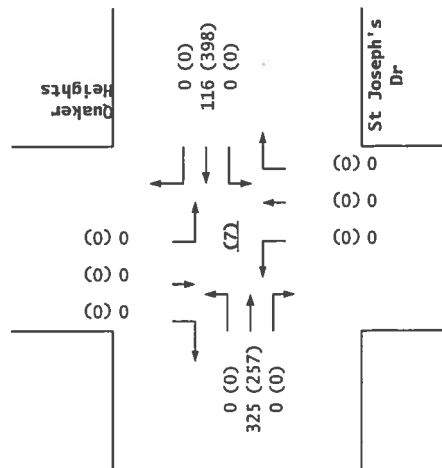
2013
BUILD



Trips



2013
NO BUILD



St Joseph's Dr / Quaker Heights

Timings

1: Sequoia Rd & Coors Blvd

Terry O. Brown, P.E.

6/27/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	57	35	73	28	16	51	1120	38	23	2244
Turn Type	Perm	Perm	Perm	pm+ov	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm
Protected Phases	4	4	8	8	2	2	2	6	6	6
Detektor Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	10.0	10.0	21.0	21.0	10.0	21.0	21.0
Total Split (s)	26.0	26.0	26.0	10.0	11.0	84.0	84.0	10.0	83.0	83.0
Total Split (%)	21.7%	21.7%	21.7%	8.3%	9.2%	70.0%	70.0%	8.3%	69.2%	69.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead-Lag										
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Elct Green (s)	15.4	15.4	15.4	26.0	90.1	84.0	84.0	89.1	83.5	83.5
Actuated g/C Ratio	0.13	0.13	0.13	0.22	0.75	0.70	0.70	0.74	0.70	0.70
v/c Ratio	0.38	0.45	0.73	0.15	0.06	0.38	0.36	0.04	0.08	0.69
Control Delay	52.4	33.2	78.6	45.6	13.4	15.8	7.9	2.2	1.2	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	33.2	78.6	45.6	13.4	15.8	7.9	2.2	1.2	3.3
LOS	D	C	E	D	B	B	A	A	A	A
Approach Delay										
Approach LOS										
Intersection Summary										
Cycle Length: 120										
Actuated Cycle Length: 120										
Offset: 60 (50%), Referenced to phase 2:NBT, Start of Green										
Natural Cycle: 70										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.73										
Intersection Signal Delay: 9.1										
Intersection Capacity Utilization 65.7%										
Analysis Period (min) 15										

Splits and Phases: 1: Sequoia Rd & Coors Blvd



2013 AM Peak NOBUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis

1: Sequoia Rd & Coors Blvd

Terry O. Brown, P.E.

6/27/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	57	35	146	73	28	16	51	1120	38	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00
Fit	1.00	0.88	1.00	1.00	0.85	1.00	0.85	1.00	0.85	1.00
Fit Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1752	3081	1752	1845	1568	1752	5036	1568	1752	5036
Fit Permitted	0.73	1.00	0.55	1.00	0.05	1.00	0.05	1.00	0.19	1.00
Satd. Flow (perm)	1353	3081	1021	1845	1568	88	5036	1568	354	5036
Peak-hour factor, PHF	0.88	0.88	0.88	0.77	0.77	0.89	0.89	0.89	0.93	0.93
Adj. Flow (vph)	65	40	168	95	36	21	57	1258	43	25
RTOR Reduction (vph)	0	63	0	0	0	17	0	13	0	15
Lane Flow (vph)	65	143	0	95	36	4	57	1258	30	25
Turn Type	Perm	Perm	Perm	pm+ov	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm
Protected Phases	4	4	8	8	2	2	2	6	6	6
Actuated Green, G (s)	15.4	15.4	15.4	15.4	21.0	90.1	84.0	84.0	89.1	83.5
Effective Green, g (s)	15.4	15.4	15.4	15.4	21.0	90.1	84.0	84.0	89.1	83.5
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.18	0.75	0.70	0.70	0.74	0.70
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	174	395	131	237	340	151	3525	1098	328	3504
v/c Ratio Prot	0.05	0.05	0.09	0.02	0.00	0.02	0.25	0.00	0.00	0.00
v/c Ratio Perm	0.37	0.36	0.73	0.15	0.01	0.38	0.36	0.03	0.08	0.69
Uniform Delay, d1	47.9	47.8	50.3	46.5	40.9	10.5	7.2	5.5	4.2	10.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.25	0.24
Incremental Delay, d2	1.4	0.6	18.0	0.3	0.0	1.6	0.3	0.0	0.1	0.6
Delay (s)	49.2	48.4	68.2	46.8	40.9	12.1	7.5	5.6	4.3	11.3
Level of Service	D	D	E	D	D	B	A	A	A	A
Approach Delay (s)										
Approach LOS										
Intersection Summary										
HCM Average Control Delay										
HCM Volume to Capacity ratio										
Actuated Cycle Length (s)										
Intersection Capacity Utilization										
Analysis Period (min)										
c Critical Lane Group										

2013 AM Peak NOBUILD Conditions

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Existing Geometry

Timings

1: Sequoia Rd & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	←	←	←	←	←	←	←	←	←	←
Volume (vph)	57	35	73	28	16	51	1135	38	24	2298
Turn Type	Perm	Perm	Perm	pm+ov	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm
Protected Phases	4	4	8	8	2	2	2	6	6	6
Permitted Phases	4	4	8	8	1	5	2	2	1	6
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	21.0	21.0	21.0	10.0	10.0	21.0	21.0	10.0	21.0	21.0
Minimum Split (s)	26.0	26.0	26.0	10.0	11.0	84.0	84.0	10.0	83.0	83.0
Total Split (%)	21.7%	21.7%	21.7%	8.3%	9.2%	70.0%	70.0%	8.3%	69.2%	69.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	15.4	15.4	15.4	26.0	90.1	84.0	84.0	89.1	83.5	83.5
Actuated g/C Ratio	0.13	0.13	0.13	0.22	0.75	0.70	0.70	0.74	0.70	0.70
Queue Delay	52.4	33.5	78.6	45.6	13.4	15.8	8.0	2.2	4.2	13.0
Control Delay	52.4	33.5	78.6	45.6	13.4	15.8	8.0	2.2	4.2	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay	52.4	33.5	78.6	45.6	13.4	15.8	8.0	2.2	4.2	13.0
LOS	D	C	E	D	B	B	A	A	A	B
Approach Delay	38.1		61.8		8.1				12.7	
Approach LOS	D		E		A				B	
Intersection Summary										
Cycle Length: 120										
Actuated Cycle Length: 120										
Offset: 0 (0%), Referenced to phase 2:NBT, and 6:SBL, Start of Green										
Natural Cycle: 70										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.73										
Intersection Signal Delay: 14.6										
Intersection Capacity Utilization 68.8%										
Analysis Period (min) 15										
Spills and Phases:										
1: Sequoia Rd & Coors Blvd										

2013 AM Peak BUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis

1: Sequoia Rd & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	←	←	←	←	←	←	←	←	←	←
Volume (vph)	57	35	146	73	28	16	51	1135	38	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Flow Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00
Flt	1.00	0.88	1.00	1.00	0.85	1.00	0.85	1.00	0.85	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1752	3081	1752	1845	1568	1752	1568	1752	3081	1568
Flt Permitted	0.73	1.00	0.55	1.00	0.55	1.00	0.55	1.00	0.73	1.00
Satd. Flow (perm)	1353	3081	1021	1845	1568	1021	1568	1353	3081	1568
Peak-hour factor, PHF	0.88	0.88	0.88	0.77	0.77	0.89	0.89	0.89	0.88	0.89
Adj. Flow (vph)	65	40	166	95	36	21	57	1275	43	26
RTOR Reduction (vph)	0	62	0	0	0	17	0	13	0	15
Lane Group Flow (vph)	65	144	0	95	36	4	57	1275	30	26
Turn Type	Perm	Perm	Perm	pm+ov	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm
Protected Phases	4	4	8	8	1	5	2	2	1	6
Permitted Phases	4	4	8	8	1	5	2	2	1	6
Actuated Green, G (s)	15.4	15.4	15.4	15.4	21.0	90.1	84.0	84.0	89.1	83.5
Effective Green, g (s)	15.4	15.4	15.4	15.4	21.0	90.1	84.0	84.0	89.1	83.5
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.18	0.75	0.70	0.70	0.74	0.70
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	174	395	131	237	340	151	3525	1098	323	3504
v/c Ratio Prot	0.05	0.05	0.09	0.02	0.00	0.02	0.25	0.02	0.00	0.02
v/c Ratio Perm	0.37	0.36	0.73	0.15	0.01	0.38	0.36	0.03	0.06	0.03
Uniform Delay, d1	47.9	47.8	50.3	46.5	40.9	11.1	7.2	5.5	4.3	10.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	0.6	18.0	0.3	0.0	1.6	0.3	0.0	0.1	1.2
Delay (s)	49.2	48.4	68.2	46.8	40.9	12.7	7.5	5.6	4.4	12.1
Level of Service	D	D	E	D	D	B	A	A	A	B
Approach Delay (s)										
Approach LOS										
Intersection Summary										
HCM Average Control Delay			14.5							
HCM Volume to Capacity ratio			0.69							
Actuated Cycle Length (s)			120.0							
Intersection Capacity Utilization			68.8%							
Analysis Period (min)			15							
c Critical Lane Group										

2013 AM Peak BUILD Conditions

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Existing Geometry

Timings

1: Sequoia Rd & Coors Blvd

Terry O. Brown, P.E.
6/28/2012 - Synchro 7

EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
120	98	140	101	46	147	2471	58	55	1478
Perm	Perm	Perm	Perm	pm-ov	pm-ov	pm-ov	Perm	pm-ov	Perm
4	4	8	8	1	5	2	2	1	6
4	4	8	8	1	5	2	2	1	6
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
21.0	21.0	21.0	21.0	10.0	10.0	21.0	21.0	10.0	21.0
34.0	34.0	34.0	34.0	10.0	10.0	76.0	10.0	10.0	69.0
28.3%	28.3%	28.3%	28.3%	8.3%	14.2%	63.3%	8.3%	57.5%	57.5%
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
23.1	23.1	23.1	23.1	33.9	84.9	76.1	76.1	78.2	72.4
0.19	0.19	0.19	0.19	0.28	0.71	0.63	0.63	0.65	0.60
0.59	0.38	0.87	0.31	0.11	0.61	0.82	0.06	0.41	0.53
53.9	22.9	85.8	42.3	29.2	20.3	20.7	5.0	27.5	17.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53.9	22.9	85.8	42.3	29.2	20.3	20.7	5.0	27.5	17.0
D	C	F	D	C	C	C	A	C	B
33.3	33.3	61.4	61.4	20.3	20.3	20.3	17.1	17.1	17.1
C	C	E	E	C	C	C	B	B	B
Intersection LOS: C	Intersection LOS: C	Intersection LOS: C	Intersection LOS: C	Intersection LOS: C	Intersection LOS: C	Intersection LOS: C	Intersection LOS: C	Intersection LOS: C	Intersection LOS: C
Intersection Signal Delay: 22.7	Intersection Signal Delay: 22.7	Intersection Signal Delay: 22.7	Intersection Signal Delay: 22.7	Intersection Signal Delay: 22.7	Intersection Signal Delay: 22.7	Intersection Signal Delay: 22.7	Intersection Signal Delay: 22.7	Intersection Signal Delay: 22.7	Intersection Signal Delay: 22.7
Intersection Capacity Utilization 83.6%	Intersection Capacity Utilization 83.6%	Intersection Capacity Utilization 83.6%	Intersection Capacity Utilization 83.6%	Intersection Capacity Utilization 83.6%	Intersection Capacity Utilization 83.6%	Intersection Capacity Utilization 83.6%	Intersection Capacity Utilization 83.6%	Intersection Capacity Utilization 83.6%	Intersection Capacity Utilization 83.6%
Analysis Period (min) 15	Analysis Period (min) 15	Analysis Period (min) 15	Analysis Period (min) 15	Analysis Period (min) 15	Analysis Period (min) 15	Analysis Period (min) 15	Analysis Period (min) 15	Analysis Period (min) 15	Analysis Period (min) 15
Splits and Phases: 1: Sequoia Rd & Coors Blvd	Splits and Phases: 1: Sequoia Rd & Coors Blvd	Splits and Phases: 1: Sequoia Rd & Coors Blvd	Splits and Phases: 1: Sequoia Rd & Coors Blvd	Splits and Phases: 1: Sequoia Rd & Coors Blvd	Splits and Phases: 1: Sequoia Rd & Coors Blvd	Splits and Phases: 1: Sequoia Rd & Coors Blvd	Splits and Phases: 1: Sequoia Rd & Coors Blvd	Splits and Phases: 1: Sequoia Rd & Coors Blvd	Splits and Phases: 1: Sequoia Rd & Coors Blvd

2013 PM Peak NOBUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis

1: Sequoia Rd & Coors Blvd

Terry O. Brown, P.E.
6/28/2012 - Synchro 7

EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
120	98	140	101	46	147	2471	58	55	1478
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.95	0.91	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1752	3194	1752	1845	1568	1752	5036	1568	1752	5036
0.64	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1190	3194	923	1845	1568	186	5036	1568	102	5036
0.88	0.88	0.88	0.91	0.91	0.94	0.94	0.94	0.91	0.91
138	111	160	154	111	51	156	2629	62	1624
0	99	0	0	0	2	0	14	0	14
136	172	0	154	111	49	158	2629	48	1624
Perm	Perm	Perm	Perm	pm-ov	pm-ov	pm-ov	Perm	pm-ov	Perm
4	4	8	8	1	5	2	2	1	6
23.1	23.1	23.1	23.1	28.9	85.5	76.1	76.1	78.3	72.5
23.1	23.1	23.1	23.1	28.9	85.5	76.1	76.1	78.3	72.5
0.19	0.19	0.19	0.19	0.24	0.71	0.63	0.63	0.65	0.60
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
229	615	178	355	443	255	3194	994	146	3043
0.05	0.05	0.06	0.06	0.01	0.05	0.52	0.02	0.32	0.32
0.11	0.11	0.07	0.07	0.03	0.39	0.03	0.25	0.01	0.01
0.59	0.28	0.87	0.31	0.11	0.61	0.82	0.05	0.41	0.53
44.2	41.3	46.9	41.6	35.5	10.4	16.8	8.3	17.2	13.9
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4.1	0.2	32.7	0.5	0.1	4.3	2.5	0.1	1.6	0.6
48.3	41.6	79.7	42.1	35.6	14.7	19.3	8.4	29.0	15.6
D	D	E	D	D	B	B	A	C	B
43.8	43.8	59.4	59.4	18.8	18.8	18.8	16.0	16.0	16.0
D	D	E	E	B	B	B	B	B	B
Intersection Summary	Intersection Summary	Intersection Summary	Intersection Summary	Intersection Summary	Intersection Summary	Intersection Summary	Intersection Summary	Intersection Summary	Intersection Summary
HCM Average Control Delay	HCM Average Control Delay	HCM Average Control Delay	HCM Average Control Delay	HCM Average Control Delay	HCM Average Control Delay	HCM Average Control Delay	HCM Average Control Delay	HCM Average Control Delay	HCM Average Control Delay
22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3
HCM Volume to Capacity ratio	HCM Volume to Capacity ratio	HCM Volume to Capacity ratio	HCM Volume to Capacity ratio	HCM Volume to Capacity ratio	HCM Volume to Capacity ratio	HCM Volume to Capacity ratio	HCM Volume to Capacity ratio	HCM Volume to Capacity ratio	HCM Volume to Capacity ratio
0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Actuated Cycle Length (s)	Actuated Cycle Length (s)	Actuated Cycle Length (s)	Actuated Cycle Length (s)	Actuated Cycle Length (s)	Actuated Cycle Length (s)	Actuated Cycle Length (s)	Actuated Cycle Length (s)	Actuated Cycle Length (s)	Actuated Cycle Length (s)
120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
Intersection Capacity Utilization	Intersection Capacity Utilization	Intersection Capacity Utilization	Intersection Capacity Utilization	Intersection Capacity Utilization	Intersection Capacity Utilization	Intersection Capacity Utilization	Intersection Capacity Utilization	Intersection Capacity Utilization	Intersection Capacity Utilization
83.6%	83.6%	83.6%	83.6%	83.6%	83.6%	83.6%	83.6%	83.6%	83.6%
Analysis Period (min)	Analysis Period (min)	Analysis Period (min)	Analysis Period (min)	Analysis Period (min)	Analysis Period (min)	Analysis Period (min)	Analysis Period (min)	Analysis Period (min)	Analysis Period (min)
15	15	15	15	15	15	15	15	15	15
c Critical Lane Group	c Critical Lane Group	c Critical Lane Group	c Critical Lane Group	c Critical Lane Group	c Critical Lane Group	c Critical Lane Group	c Critical Lane Group	c Critical Lane Group	c Critical Lane Group

2013 PM Peak NOBUILD Conditions

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Existing Geometry

Timings

1: Sequoia Rd & Coors Blvd

Terry O. Brown, P.E.

6/28/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations	120	98	140	101	47	147	2528	58	55
Volume (vph)	120	98	140	101	47	147	2528	58	55
Turn Type	Perm	Perm	Perm	pm-ov	pm-ov	pm-ov	Perm	pm-ov	Perm
Protected Phases	4	4	8	8	2	2	2	6	6
Permitted Phases	4	4	8	8	2	2	2	6	6
Detector Phase	4	4	8	8	2	2	2	6	6
Switch Phase	4	4	8	8	2	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	10.0	10.0	21.0	21.0	10.0	21.0
Total Split (s)	34.0	34.0	34.0	10.0	10.0	76.0	76.0	10.0	69.0
Total Split (%)	28.3%	28.3%	28.3%	8.3%	8.3%	63.3%	63.3%	8.3%	57.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lead	Lead	Lag	Lag	Lag	Lead	Lag
Lead/Lag Optimize?									
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	23.1	23.1	33.9	85.0	76.1	76.1	76.1	72.3	72.3
Actuated g/C Ratio	0.19	0.19	0.19	0.26	0.71	0.63	0.63	0.65	0.60
v/c Ratio	0.59	0.38	0.87	0.31	0.12	0.84	0.06	0.41	0.55
Control Delay	53.9	23.1	85.8	42.3	29.3	22.3	21.5	35.1	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.9	23.1	85.8	42.3	29.3	22.3	21.5	35.1	12.7
LOS	D	C	F	D	C	C	C	A	B
Approach Delay	33.4		61.3					13.3	
Approach LOS	C		E					B	
Intersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120									
Offset: 27 (23%), Referenced to phase 2:NBT and 6:SBTL Start of Green									
Natural Cycle: 80									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.87									
Intersection Signal Delay: 21.9									
Intersection Capacity Utilization 84.7%									
Analysis Period (min) 15									
Splits and Phases: 1: Sequoia Rd & Coors Blvd									

2013 PM Peak BUILD Conditions

Existing Geometry

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HCM Signalized Intersection Capacity Analysis

1: Sequoia Rd & Coors Blvd

Terry O. Brown, P.E.

6/28/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations	120	98	140	101	47	147	2528	58	55
Volume (vph)	120	98	140	101	47	147	2528	58	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	0.91	1.00	0.91	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Flt Protected (prot)	1752	3194	1752	1845	1568	1752	5036	1752	5036
Flt Permitted	0.64	1.00	0.50	1.00	0.10	1.00	1.00	0.06	1.00
Satd. Flow (perm)	1190	3194	923	1645	1568	176	5036	102	5036
Peak-hour factor, PHF	0.88	0.88	0.91	0.91	0.91	0.94	0.94	0.91	0.91
Adj. Flow (vph)	136	111	160	154	111	52	2589	62	1658
RTOR Reduction (vph)	0	99	0	0	0	0	0	0	0
Lane Group Flow (vph)	136	172	0	154	111	50	2589	48	1658
Turn Type	Perm	Perm	Perm	pm-ov	pm-ov	pm-ov	Perm	pm-ov	Perm
Protected Phases	4	4	8	8	2	2	2	6	6
Permitted Phases	4	4	8	8	2	2	2	6	6
Actuated Green, G (s)	23.1	23.1	23.1	28.9	85.7	76.1	76.1	72.3	72.3
Effective Green, g (s)	23.1	23.1	23.1	28.9	85.7	76.1	76.1	72.3	72.3
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.24	0.71	0.63	0.65	0.60
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	229	615	178	355	443	252	3194	994	146
v/c Ratio Prot	0.11	0.05	0.06	0.06	0.01	0.05	0.53	0.02	0.33
v/c Ratio Perm	0.59	0.28	0.87	0.31	0.11	0.62	0.84	0.05	0.41
Uniform Delay, d1	44.2	41.4	46.9	41.5	35.6	11.2	17.2	8.3	18.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.61
Incremental Delay, d2	4.1	0.3	32.7	0.5	0.1	4.5	2.9	0.1	1.5
Delay (s)	48.3	41.6	79.7	42.1	35.7	15.7	20.1	8.4	19.6
Level of Service	D	D	E	D	D	B	C	A	B
Approach Delay (s)									
Approach LOS									
Intersection Summary									
HCM Average Control Delay	21.5								
HCM Volume to Capacity ratio	0.85								
Actuated Cycle Length (s)	120.0								
Intersection Capacity Utilization	84.7%								
Analysis Period (min)	15								
g Critical Lane Group									

2013 PM Peak BUILD Conditions

Existing Geometry

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Timings
2: St Joseph's Dr & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	198	32	94	88	11	48	28	1016	132	81	2265
Volume (vph)	198	32	94	88	11	48	28	1016	132	81	2265
Turn Type	Prot	pm+ov	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+ov
Protected Phases	7	4	5	3	8	5	2	2	6	6	7
Permitted Phases	7	4	5	3	8	5	2	2	6	6	7
Detector Phase	7	4	5	3	8	5	2	2	6	6	7
Switch Phase	7	4	5	3	8	5	2	2	6	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	17.0	24.0	10.0	14.0	21.0	10.0	14.0	21.0	10.0	14.0	21.0
Total Split (%)	14.2%	20.0%	8.3%	11.7%	17.5%	8.3%	59.2%	59.2%	9.2%	60.0%	14.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lost Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Recall Mode	Min	Min	Min	Min	Max	Min	C-Min	C-Min	Min	C-Min	Min
Act Effect Green (s)	11.8	19.4	29.4	25.0	16.3	70.9	65.9	65.9	72.9	66.9	83.7
Actuated g/C Ratio	0.10	0.16	0.24	0.21	0.14	0.59	0.55	0.55	0.61	0.56	0.70
v/c Ratio	0.79	0.14	0.29	0.38	0.17	0.24	0.42	0.42	0.32	0.88	0.07
Control Delay	48.1	27.9	18.8	38.4	16.2	9.1	17.3	17.3	9.6	16.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	27.9	18.8	38.4	16.2	9.1	17.3	17.3	9.6	16.8	0.1
LOS	D	C	B	D	B	A	B	A	A	B	A
Approach Delay	37.8				29.5		15.9		16.0		B
Approach LOS	D				C		B		B		B
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 120											
Offset: 8 (7%), Referenced to phase 2:NBTL and 6:SRTL, Start of Green											
Natural Cycle: 90											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.88											
Intersection Signal Delay: 18.6											
Intersection Capacity Utilization 72.7%											
Analysis Period (min) 15											
Splits and Phases: 2: St Joseph's Dr & Coors Blvd											

2013 AM Peak NOBUILD Conditions
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Existing Geometry

HCM Signalized Intersection Capacity Analysis
2: St Joseph's Dr & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	198	32	94	88	11	48	28	1016	132	81	2265
Volume (vph)	198	32	94	88	11	48	28	1016	132	81	2265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	0.91	1.00	0.91	1.00	0.91
Flt	1.00	1.00	1.00	1.00	0.88	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)	3400	1845	1568	1752	3079	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.73	1.00	0.06	1.00	0.06	1.00	0.73
Satd. Flow (perm)	3400	1845	1568	1345	3079	1112	5036	1568	1345	3079	1568
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.87	0.87	0.87	0.92	0.92
Adj. Flow (vph)	264	43	125	117	15	64	32	1168	152	88	2462
RTOR Reduction (vph)	0	0	46	0	55	0	0	69	0	0	29
Lane Group Flow (vph)	264	43	79	117	24	0	32	1168	83	88	2462
Turn Type	Prot	pm+ov	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+ov
Protected Phases	7	4	5	3	8	5	2	2	6	6	7
Permitted Phases	7	4	5	3	8	5	2	2	6	6	7
Actuated Green, G (s)	11.8	19.4	24.4	25.0	16.3	70.9	65.9	65.9	72.9	66.9	78.7
Effective Green, g (s)	11.8	19.4	24.4	25.0	16.3	70.9	65.9	65.9	72.9	66.9	78.7
Actuated g/C Ratio	0.10	0.16	0.20	0.21	0.14	0.59	0.55	0.55	0.61	0.56	0.68
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	334	298	384	310	418	135	2766	861	279	2808	1094
v/s Ratio Prot	0.008	0.02	0.01	0.03	0.01	0.01	0.23	0.01	0.02	0.02	0.00
v/s Ratio Perm	0.79	0.14	0.21	0.38	0.06	0.13	0.42	0.10	0.32	0.88	0.05
Uniform Delay, d1	52.9	43.2	39.7	40.3	45.2	20.4	15.9	12.9	10.6	23.0	7.3
Progression Factor	0.59	0.61	0.83	1.00	1.00	0.63	1.05	3.23	0.92	0.60	0.01
Incremental Delay, d2	11.3	0.2	0.2	0.8	0.3	0.9	0.5	0.2	0.4	2.8	0.0
Delay (s)	42.4	26.6	33.3	41.1	45.4	13.7	17.2	41.8	10.1	16.5	0.1
Level of Service	D	C	C	D	D	B	B	D	D	B	A
Approach Delay (s)	38.2				42.8		19.9		15.8		B
Approach LOS	D				D		B		B		B
Intersection Summary											
HCM Average Control Delay	20.2										C
HCM Volume to Capacity ratio	0.76										C
Actuated Cycle Length (s)	120.0										20.0
Intersection Capacity Utilization	72.7%										C
Analysis Period (min)	15										
o Critical Lane Group											

2013 AM Peak NOBUILD Conditions
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Existing Geometry

Timings
2: St Joeseeph's Dr & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	198	32	149	88	11	43	1016	132	81	2265	76
Volume (vph)	198	32	149	88	11	43	1016	132	81	2265	76
Turn Type	Prot		pm+ov	pm+pt	pm+pt	pm+pt		Perm	pm+pt	pm+ov	
Protected Phases	7	4	5	3	8	5	2	2	6	6	7
Permitted Phases	4	8						2	2	6	6
Detector Phase	7	4	5	3	8	5	2	2	6	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0
Total Split (s)	17.0	24.0	10.0	14.0	21.0	10.0	71.0	71.0	11.0	72.0	17.0
Total Split (%)	14.2%	20.0%	8.3%	11.7%	17.5%	8.3%	59.2%	59.2%	9.2%	60.0%	14.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimizer?											
Recall Mode	Min	Min	Min	Min	Max	Min	C-Min	C-Min	Min	C-Min	Min
Act Eff Green (s)	11.8	19.4	29.4	25.0	16.3	70.9	65.9	65.9	72.9	66.9	83.7
Actuated g/C Ratio	0.10	0.16	0.24	0.21	0.14	0.59	0.55	0.55	0.61	0.56	0.70
v/c Ratio	0.79	0.14	0.46	0.38	0.17	0.36	0.42	0.16	0.32	0.88	0.07
Control Delay	70.3	45.1	31.2	38.4	16.2	25.2	14.5	2.0	11.3	27.6	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.3	45.1	31.2	38.4	16.2	25.2	14.5	2.0	11.3	27.6	1.3
LOS	E	D	C	D	B	C	B	A	B	C	A
Approach Delay	52.8				29.5					26.3	
Approach LOS	D				C					C	
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 120											
Offset: 0 (0%), Referenced to phase 2-NBTL and 6-SBTL Start of Green											
Natural Cycle: 90											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.88											
Intersection Signal Delay: 25.5											
Intersection Capacity Utilization 72.7%											
Analysis Period (min) 15											



2013 AM Peak BUILD Conditions
Existing Geometry
D:\NATOBEP\PROJECTS_2012\Oxbow_Apartments\Synchro2013ABX.syn

HCM Signalized Intersection Capacity Analysis
2: St Joeseeph's Dr & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	198	32	149	88	11	43	1016	132	81	2265	76
Volume (vph)	198	32	149	88	11	43	1016	132	81	2265	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.88	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3079	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.73	1.00	0.06	1.00	1.00	0.19	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1345	3079	112	5036	1568	343	5036	1568
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	264	43	199	117	15	64	49	1168	152	88	2462
RTOR Reduction (vph)	0	0	46	0	55	0	0	69	0	0	29
Lane Group Flow (vph)	264	43	153	117	24	0	49	1168	83	88	2462
Turn Type	Prot		pm+ov	pm+pt	pm+pt	pm+pt		Perm	pm+pt	pm+ov	
Protected Phases	7	4	5	3	8	5	2	2	6	6	7
Permitted Phases											
Actuated Green, G (s)	11.8	19.4	24.4	25.0	16.3	70.9	65.9	65.9	72.9	66.9	78.7
Effective Green, g (s)	11.8	19.4	24.4	25.0	16.3	70.9	65.9	65.9	72.9	66.9	78.7
Actuated g/C Ratio	0.10	0.16	0.20	0.21	0.14	0.59	0.55	0.55	0.61	0.56	0.66
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	334	298	384	310	418	135	2766	861	279	2808	1094
v/c Ratio Prot	60.08	0.02	60.02	0.03	0.01	0.02	0.23	0.02	0.02	60.49	0.00
v/c Ratio Perm	0.79	0.14	0.40	0.38	0.06	0.36	0.42	0.10	0.32	0.88	0.05
Uniform Delay, d1	52.9	43.2	41.4	40.3	45.2	21.0	15.9	12.9	10.6	23.0	7.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.80	1.00	1.00	1.00
Incremental Delay, d2	12.0	0.2	0.7	0.8	0.3	1.6	0.5	0.2	0.7	4.2	0.0
Delay (s)	64.9	43.4	42.1	41.1	45.4	45.5	14.4	10.5	11.3	27.2	7.4
Level of Service	E	D	D	D	D	D	B	B	B	C	A
Approach Delay (s)	54.1				42.8					26.1	
Approach LOS	D				D					C	
Intersection Summary											
HCM Average Control Delay											
HCM Volume to Capacity ratio											
Actuated Cycle Length (s)											
Intersection Capacity Utilization											
Analysis Period (min)											
c Critical Lane Group											

2013 AM Peak BUILD Conditions
Existing Geometry
D:\NATOBEP\PROJECTS_2012\Oxbow_Apartments\Synchro2013ABX.syn

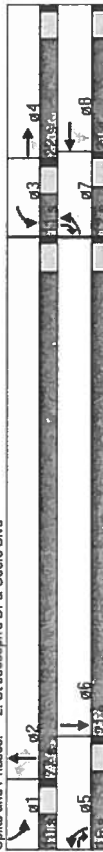
Timings

2: St Joseph's Dr & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	179	17	61	77	14	124	2690	60	72	1615	260
Volume (vph)	179	17	61	77	14	124	2690	60	72	1615	260
Turn Type	Prot	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov
Protected Phases	7	4	5	3	8	5	2	2	6	6	7
Detector Phase	7	4	5	3	8	5	2	2	6	6	7
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0
Minimum Split (s)	12.0	22.0	16.0	11.0	21.0	16.0	11.0	21.0	16.0	11.0	21.0
Total Split (%)	10.0%	18.3%	13.3%	9.2%	17.5%	13.3%	64.2%	64.2%	8.3%	59.2%	10.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead
Lead/Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Elct Green (s)	7.0	17.0	31.0	22.0	16.0	80.6	72.0	72.0	73.0	68.0	80.0
Actuated g/C Ratio	0.06	0.14	0.26	0.18	0.13	0.67	0.60	0.60	0.61	0.57	0.67
v/c Ratio	0.96	0.07	0.15	0.34	0.21	0.61	0.98	0.07	0.56	0.60	0.24
Control Delay	89.7	29.1	14.6	42.2	17.9	34.8	21.9	0.1	33.3	22.9	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.7	29.1	14.6	42.2	17.9	34.8	21.9	0.1	33.3	22.9	5.5
LOS	F	C	B	D	B	C	C	A	C	C	A
Approach Delay	67.8										
Approach LOS	E										
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 120											
Offset: 72 (60%), Referenced to phase 2:NBTL and 6:SBTL Start of Green											
Natural Cycle: 110											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.98											
Intersection Signal Delay: 24.1											
Intersection Capacity Utilization 80.4%											
Analysis Period (min) 15											

Splits and Phases: 2: St Joseph's Dr & Coors Blvd



2013 PM Peak NOBUILD Conditions

D:\VATOBEP\PROJECTS_2012\Oxbow_Apartments\Synchro\2013PNX.syn
Existing Geometry

HCM Signalized Intersection Capacity Analysis

2: St Joseph's Dr & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	179	17	61	77	14	124	2690	60	72	1615	260
Volume (vph)	179	17	61	77	14	124	2690	60	72	1615	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	0.91	1.00	0.91	1.00	0.95
Fit	1.00	1.00	0.85	1.00	0.88	1.00	1.00	0.85	1.00	1.00	0.85
Fit Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1845	1568	1752	3068	1752	3036	1568	1752	3036	1568
Fit Permitted	0.95	1.00	1.00	0.75	1.00	0.08	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1376	3068	153	5036	1568	109	5036	1568
Peak-hour factor, PHF	0.94	0.94	0.94	0.83	0.83	0.83	0.91	0.91	0.91	0.95	0.95
Adj. Flow (vph)	190	18	65	93	17	83	136	2956	66	76	1700
RTOR Reduction (vph)	0	0	45	0	62	0	0	26	0	0	103
Lane Group Flow (vph)	190	18	20	93	38	0	136	2956	40	76	1700
Turn Type	Prot	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov	pm-ov
Protected Phases	7	4	5	3	8	5	2	2	6	6	7
Permitted Phases											
Actuated Green, G (s)	7.0	17.0	26.0	22.0	16.0	81.0	72.0	72.0	73.0	68.0	75.0
Effective Green, g (s)	7.0	17.0	26.0	22.0	16.0	81.0	72.0	72.0	73.0	68.0	75.0
Actuated g/C Ratio	0.06	0.14	0.22	0.18	0.13	0.68	0.60	0.60	0.61	0.57	0.62
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	261	405	271	409	223	3022	941	135	2854	1045
v/c Ratio Prot	0.06	0.01	0.00	0.02	0.01	0.05	0.59	0.02	0.34	0.01	0.01
v/c Ratio Perm	0.96	0.07	0.05	0.34	0.09	0.61	0.98	0.04	0.56	0.60	0.16
Uniform Delay, d1	56.4	44.6	37.2	42.3	45.6	13.6	23.2	9.8	27.2	17.0	9.4
Progression Factor	0.59	0.63	1.33	1.00	1.00	2.13	0.49	0.00	1.31	1.27	5.31
Incremental Delay, d2	50.6	0.1	0.0	0.8	0.4	3.3	9.4	0.1	4.4	0.8	0.1
Delay (s)	84.0	28.4	49.5	43.0	46.1	32.2	20.9	0.1	40.1	22.4	49.9
Level of Service	F	C	D	D	D	C	C	A	D	C	D
Approach Delay (s)	72.1										
Approach LOS	E										
Intersection Summary											
HCM Average Control Delay	26.3										
HCM Volume to Capacity ratio	0.87										
Actuated Cycle Length (s)	120.0										
Intersection Capacity Utilization	80.4%										
Analysis Period (min)	15										
o Critical Lane Group											

2013 PM Peak NOBUILD Conditions

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Existing Geometry

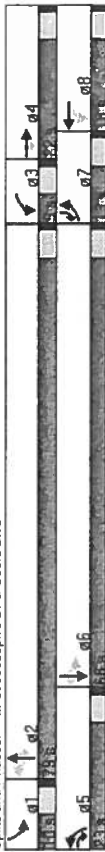
Timings

2: St Joeseeph's Dr & Coors Blvd

Terry O. Brown, P.E.
6/28/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT
Volume (vph)	179	17	92	77	14	181	2890	60	72	1615	260
Turn Type	Prot	pm+ov	pm+pt	pm+pt	pm+ov	pm+pt	Perm	pm+pt	pm+ov	pm+ov	pm+ov
Protected Phases	7	4	5	3	8	5	2	2	1	6	7
Permitted Phases	7	4	5	3	8	5	2	2	1	6	7
Detector Phase	7	4	5	3	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0
Total Split (s)	13.0	22.0	23.0	9.0	18.0	23.0	79.0	10.0	66.0	13.0	13.0
Total Split (%)	10.8%	18.3%	19.2%	7.5%	15.0%	19.2%	65.8%	8.3%	55.0%	10.8%	10.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
All-Red Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimizer?											
Recall Mode	Min	Min	Min	Min	Min	Min	G-Min	G-Min	G-Min	G-Min	Min
Act Eff Green (s)	8.0	17.0	35.2	17.0	13.0	83.5	74.0	74.0	70.8	65.8	78.8
Actuated g/C Ratio	0.07	0.14	0.29	0.14	0.11	0.70	0.62	0.62	0.59	0.55	0.66
v/c Ratio	0.84	0.07	0.20	0.45	0.25	0.72	0.95	0.07	0.56	0.62	0.24
Control Delay	66.5	31.6	20.0	49.7	19.4	44.1	18.5	0.1	36.0	32.5	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	31.6	20.0	49.7	19.4	44.1	18.5	0.1	36.0	32.6	9.2
LOS	E	C	B	D	B	D	B	A	D	C	A
Approach Delay	49.5										29.6
Approach LOS	D										C
Intersection Summary											
Cycle Length: 120											
Offset: 78 (65%), Referenced to phase 2:NRTL and 6:SRTL, Start of Green											
Natural Cycle: 110											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.95											
Intersection Signal Delay: 25.3											
Intersection Capacity Utilization 80.4%											
Analysis Period (min) 15											

Spills and Phases: 2: St Joeseeph's Dr & Coors Blvd



2013 PM Peak BUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis

2: St Joeseeph's Dr & Coors Blvd

Terry O. Brown, P.E.
6/28/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT
Volume (vph)	179	17	92	77	14	181	2890	60	72	1615	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.88	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Stall Flow (prot)	3400	1845	1568	1752	3068	1752	5036	1568	1752	5036	1568
Flt Permitted	0.95	1.00	1.00	0.75	1.00	0.08	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)	3400	1845	1568	1376	3068	144	5036	1568	112	5036	1568
Peak-hour factor, PHF	0.94	0.94	0.94	0.83	0.83	0.83	0.91	0.91	0.91	0.95	0.95
Adj. Flow (vph)	190	18	98	93	17	83	199	2956	66	1700	274
RTOR Reduction (vph)	0	0	26	0	64	0	0	0	25	0	105
Lane Group Flow (vph)	190	18	72	93	36	0	199	2956	41	76	1700
Turn Type	Prot	pm+ov	pm+pt	pm+pt	pm+ov	pm+pt	Perm	pm+pt	pm+ov	pm+ov	pm+ov
Protected Phases	7	4	5	3	8	5	2	2	1	6	7
Permitted Phases	7	4	5	3	8	5	2	2	1	6	7
Actuated Green, G (s)	8.0	17.0	30.2	17.0	13.0	84.0	74.0	74.0	70.8	65.8	73.8
Effective Green, g (s)	8.0	17.0	30.2	17.0	13.0	84.0	74.0	74.0	70.8	65.8	73.8
Actuated g/C Ratio	0.07	0.14	0.25	0.14	0.11	0.70	0.62	0.62	0.59	0.55	0.61
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	227	261	460	207	332	278	3106	967	134	2761	1030
v/c Ratio Prot	c0.06	c0.01	c0.02	c0.01	0.01	c0.08	c0.59	0.02	0.34	0.01	0.01
v/c Ratio Perm	0.84	0.07	0.16	0.45	0.11	0.72	0.95	0.04	0.31	0.62	0.16
Uniform Delay, d1	55.4	44.6	35.0	46.8	48.3	24.9	21.3	9.1	25.2	18.5	9.9
Progression Factor	0.86	0.69	0.97	1.00	1.00	1.66	0.56	0.01	1.33	1.65	7.82
Incremental Delay, d2	22.2	0.1	0.2	1.6	0.7	5.8	6.0	0.1	4.4	0.8	0.1
Delay (s)	58.5	30.9	34.0	48.3	48.9	47.2	17.9	0.1	37.9	31.4	77.4
Level of Service	E	C	C	D	D	D	B	A	D	C	E
Approach Delay (s)	49.0										37.8
Approach LOS	D										D
Intersection Summary											
HCM Average Control Delay	28.4										C
HCM Volume to Capacity ratio	0.92										
Actuated Cycle Length (s)	120.0										25.0
Intersection Capacity Utilization	80.4%										D
Analysis Period (min)	15										
c Critical Lane Group											

2013 PM Peak BUILD Conditions

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Existing Geometry

Timings

3: Western Trail & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	168	8	58	7	22	63	1236	15	9
Volume (vph)	168	8	58	7	22	63	1236	15	9
Turn Type	Prot	pm+pt	pm+pt	Perm	pm+pt	Perm	pm+pt	pm+ov	pm+ov
Protected Phases	7	4	3	8	8	2	2	6	7
Permitted Phases	7	4	3	8	8	2	2	6	7
Detector Phase	7	4	3	8	8	2	2	6	7
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0
Minimum Split (s)	17.0	30.0	10.0	23.0	10.0	23.0	10.0	23.0	10.0
Total Split (s)	14.2%	25.0%	8.3%	19.2%	8.3%	58.3%	58.3%	8.3%	58.3%
Total Split (%)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Yellow Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lost Time Adjus (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead/Lag Optimize?	None	Min	None	Min	None	Min	None	Min	None
Recall Mode	11.3	20.7	17.7	12.5	12.5	79.3	79.3	76.7	72.2
Act Effct Green (s)	0.09	0.17	0.15	0.10	0.10	0.67	0.66	0.64	0.60
Actuated g/C Ratio	0.66	0.84	0.57	0.05	0.15	0.47	0.43	0.02	0.04
v/c Ratio	62.7	52.2	53.4	45.4	45.4	17.1	36.7	11.6	5.4
Control Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Delay	62.7	52.2	53.4	45.4	45.4	17.1	36.7	11.6	5.4
Total Delay	E	D	D	D	D	B	B	A	A
LOS	E	D	D	D	D	B	B	A	A
Approach Delay	56.5	E	43.6	D	43.6	D	12.7	B	15.2
Approach LOS	E	E	D	D	D	B	B	A	B
Intersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120									
Offset: 118 (98%), Referenced to phase 2:NBT, Start of Green									
Natural Cycle: 90									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.84									
Intersection Signal Delay: 19.7									
Intersection Capacity Utilization 78.1%									
Analysis Period (min) 15									
Splits and Phases:	3: Western Trail & Coors Blvd								
	11.3	20.7	17.7	12.5	12.5	79.3	79.3	76.7	72.2
	11.3	20.7	17.7	12.5	12.5	79.3	79.3	76.7	72.2
	11.3	20.7	17.7	12.5	12.5	79.3	79.3	76.7	72.2
	11.3	20.7	17.7	12.5	12.5	79.3	79.3	76.7	72.2

2013 AM Peak NOBUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis

3: Western Trail & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	168	8	58	7	22	63	1236	15	9
Volume (vph)	168	8	58	7	22	63	1236	15	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr	1.00	0.86	1.00	1.00	0.85	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Satd. Flow (prot)	3400	1577	1752	1845	1568	1752	1568	1752	1568
Flt Permitted	0.95	1.00	0.30	1.00	0.05	1.00	0.05	1.00	0.05
Satd. Flow (perm)	3400	1577	551	1845	1568	99	5036	281	5036
Peak-hour factor, PHF	0.80	0.80	0.75	0.75	0.75	0.87	0.87	0.87	0.87
Adj. Flow (vph)	210	107	286	77	9	29	72	1421	17
RTOR Reduction (vph)	0	82	0	0	0	26	0	0	0
Lane Group Flow (vph)	210	214	0	77	9	3	72	1421	11
Turn Type	Prot	pm+pt	pm+pt	Perm	pm+pt	Perm	pm+pt	pm+ov	pm+ov
Protected Phases	7	4	3	8	8	2	2	6	7
Permitted Phases	7	4	3	8	8	2	2	6	7
Actuated Green, G (s)	11.3	20.7	17.4	13.4	13.4	79.3	74.3	71.3	70.3
Effective Green, g (s)	11.3	20.7	17.4	13.4	13.4	79.3	74.3	71.3	70.3
Actuated g/C Ratio	0.09	0.17	0.14	0.11	0.11	0.66	0.62	0.59	0.59
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	320	272	120	206	175	134	3118	971	179
v/c Ratio Prot	60.06	60.14	0.02	0.00	0.00	60.02	0.28	0.00	60.46
v/c Ratio Perm	0.66	0.79	0.64	0.04	0.02	0.54	0.46	0.01	0.03
Uniform Delay, d1	52.5	47.5	47.1	47.6	47.4	18.1	12.1	8.8	10.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	2.10	1.03	1.12	0.58
Incremental Delay, d2	4.8	13.9	11.2	0.1	0.0	3.7	0.4	0.0	0.1
Delay (s)	57.3	61.5	58.3	47.7	47.5	41.6	12.9	9.8	15.4
Level of Service	E	E	E	D	D	D	B	A	A
Approach Delay (s)	59.7	E	54.7	D	D	14.3	B	15.1	B
Approach LOS	E	E	D	D	D	B	B	15.1	B
Intersection Summary									
HCM Average Control Delay	20.9								
HCM Volume to Capacity ratio	0.82								
Actuated Cycle Length (s)	120.0								
Intersection Capacity Utilization	78.1%								
Analysis Period (min)	15								
c. Critical Lane Group									

2013 AM Peak NOBUILD Conditions

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Existing Geometry

Timings

3: Western Trail & Coors Blvd Terry O. Brown, P.E.
6/28/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT
Volume (vph)	208	8	58	7	22	63	1236	15	9	1995	50
Turn Type	Prot	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt	pm+ov
Protected Phases	7	4	3	8	8	5	2	2	1	6	7
Permitted Phases	7	4	3	8	8	5	2	2	1	6	7
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	10.0	21.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0
Minimum Split (s)	19.0	30.0	10.0	21.0	10.0	70.0	70.0	10.0	70.0	10.0	19.0
Total Split (%)	15.8%	25.0%	8.3%	17.5%	8.3%	58.3%	58.3%	8.3%	58.3%	8.3%	15.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	None	Min	None	Min	None	C-Min	C-Min	None	C-Min	None	None
Act Eff Green (s)	13.1	22.0	17.1	11.9	11.9	79.0	78.0	75.5	71.3	89.4	89.4
Actuated g/C Ratio	0.11	0.18	0.14	0.10	0.10	0.88	0.85	0.65	0.63	0.59	0.74
v/c Ratio	0.70	0.80	0.55	0.05	0.16	0.49	0.43	0.02	0.04	0.77	0.05
Control Delay	62.2	47.6	51.2	46.7	17.7	32.0	14.9	7.9	8.2	15.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	47.6	51.2	46.7	17.7	32.0	14.9	7.9	8.2	15.5	1.2
LOS	E	D	D	D	B	C	B	A	A	B	A
Approach Delay	54.5									15.2	
Approach LOS	D									B	
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 120											
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green											
Natural Cycle: 90											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.80											
Intersection Signal Delay: 20.8											
Intersection Capacity Utilization 78.1%											
Analysis Period (min) 15											



2013 AM Peak BUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis

3: Western Trail & Coors Blvd Terry O. Brown, P.E.
6/28/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT
Volume (vph)	208	8	229	58	7	22	63	1236	15	9	1995
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.85
Flt	1.00	0.88	1.00	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95
Satd. Flow (prot)	3400	1577	1752	1845	1568	1752	1568	1568	1752	1568	1568
Flt Permitted	0.95	1.00	0.35	1.00	1.00	0.05	1.00	1.00	0.15	1.00	1.00
Satd. Flow (perm)	3400	1577	639	1845	1568	101	5036	1568	278	5036	1568
Peak-hour factor, PHF	0.80	0.80	0.80	0.75	0.75	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	260	10	288	77	9	29	72	1421	17	10	2293
RTOR Reduction (vph)	0	81	0	0	0	26	0	0	7	0	18
Lane Group Flow (vph)	260	215	0	77	9	3	72	1421	10	10	2293
Turn Type	Prot	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+ov
Protected Phases	7	4	3	8	8	5	2	2	1	6	7
Permitted Phases	7	4	3	8	8	5	2	2	1	6	7
Actuated Green, G (s)	13.1	22.0	16.9	12.9	12.9	77.7	73.0	73.0	70.3	69.3	82.4
Effective Green, g (s)	13.1	22.0	16.9	12.9	12.9	77.7	73.0	73.0	70.3	69.3	82.4
Actuated g/C Ratio	0.11	0.18	0.14	0.11	0.11	0.65	0.61	0.61	0.59	0.58	0.69
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	371	289	127	198	169	130	3064	954	174	2308	1142
v/c Ratio Prot	0.08	0.14	0.02	0.00	0.00	0.02	0.28	0.01	0.03	0.00	0.00
v/c Ratio Perm	0.70	0.74	0.51	0.05	0.02	0.55	0.46	0.01	0.06	0.07	0.03
Uniform Delay, d1	51.6	46.3	47.2	48.0	47.9	18.7	12.8	9.3	10.8	19.7	6.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.63	1.27	1.61	0.95	0.70
Incremental Delay, d2	5.9	10.0	7.9	0.1	0.0	4.5	0.5	0.0	0.1	1.8	0.0
Delay (s)	57.4	56.3	55.2	48.1	47.9	34.9	16.8	14.9	10.3	15.6	4.6
Level of Service	E	E	E	D	D	C	B	B	B	B	A
Approach Delay (s)	56.8									15.3	
Approach LOS	E									B	
Intersection Summary											
HCM Average Control Delay	22.1										
HCM Volume to Capacity ratio	0.82										
Actual Cycle Length (s)	120.0										
Intersection Capacity Utilization	78.1%										
Analysis Period (min)	15										
c Critical Lane Group											

2013 AM Peak BUILD Conditions

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Existing Geometry

Timings
3: Western Trail & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Line Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	111	2	21	9	20	241	2499	39	26	1742
Volume (vph)	111	2	21	9	20	241	2499	39	26	1742
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	0.85	1.00	1.00	0.85	1.00	0.85	1.00	0.85	1.00
Flt Protected	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1577	1752	1845	1568	1752	1568	1752	1568	1568
Flt Permitted	0.95	1.00	0.69	1.00	1.00	0.69	1.00	0.69	1.00	1.00
Satd. Flow (perm)	3400	1577	1281	1845	1568	1281	1568	1281	1568	1568
Peak-hour factor, PHF	0.77	0.77	0.77	0.83	0.83	0.77	0.83	0.77	0.83	0.77
Adj. Flow (vph)	144	3	94	25	11	24	265	2746	43	27
RTOR Reduction (vph)	0	84	0	0	0	22	0	0	11	0
Lane Group Flow (vph)	144	13	0	25	11	2	265	2746	32	27
Turn Type	Prot	4	3	8	5	2	2	4	6	7
Protected Phases	7	4	3	8	5	2	2	4	6	7
Permitted Phases	7	4	3	8	5	2	2	4	6	7
Actuated Green, G (s)	7.2	12.8	11.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Effective Green, g (s)	7.2	12.8	11.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Actuated g/C Ratio	0.06	0.11	0.10	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	204	168	136	132	112	333	3378	1052	115	2778
vs Ratio Prot	0.04	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01
vs Ratio Perm	0.71	0.08	0.18	0.08	0.02	0.80	0.81	0.03	0.23	0.65
Uniform Delay, d1	55.4	48.3	49.7	52.0	51.8	33.5	14.3	6.6	15.1	18.9
Progression Delay, d2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.6	0.2	0.7	0.3	0.1	4.1	0.7	0.0	0.9	1.0
Delay (s)	65.9	48.5	50.3	52.3	51.8	33.5	14.3	6.6	15.1	17.2
Level of Service	E	D	D	D	D	D	D	A	B	A
Approach Delay (s)	58.9	E	51.3	D	51.3	D	51.3	D	51.3	D
Approach LOS	E	E	D	D	D	D	D	B	B	B
Intersection Summary										
HCM Average Control Delay	15.2									
HCM Volume to Capacity ratio	0.80									
Actuated Cycle Length (s)	120.0									
Intersection Capacity Utilization	74.8%									
Analysis Period (min)	15									
g Critical Lane Group										



2013 PM Peak NOBUILD Conditions
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Existing Geometry

HCM Signalized Intersection Capacity Analysis
3: Western Trail & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	111	2	21	9	20	241	2499	39	26	1742
Volume (vph)	111	2	21	9	20	241	2499	39	26	1742
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	0.85	1.00	1.00	0.85	1.00	0.85	1.00	0.85	1.00
Flt Protected	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1577	1752	1845	1568	1752	1568	1752	1568	1568
Flt Permitted	0.95	1.00	0.69	1.00	1.00	0.69	1.00	0.69	1.00	1.00
Satd. Flow (perm)	3400	1577	1281	1845	1568	1281	1568	1281	1568	1568
Peak-hour factor, PHF	0.77	0.77	0.77	0.83	0.83	0.77	0.83	0.77	0.83	0.77
Adj. Flow (vph)	144	3	94	25	11	24	265	2746	43	27
RTOR Reduction (vph)	0	84	0	0	0	22	0	0	11	0
Lane Group Flow (vph)	144	13	0	25	11	2	265	2746	32	27
Turn Type	Prot	4	3	8	5	2	2	4	6	7
Protected Phases	7	4	3	8	5	2	2	4	6	7
Permitted Phases	7	4	3	8	5	2	2	4	6	7
Actuated Green, G (s)	7.2	12.8	11.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Effective Green, g (s)	7.2	12.8	11.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Actuated g/C Ratio	0.06	0.11	0.10	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	204	168	136	132	112	333	3378	1052	115	2778
vs Ratio Prot	0.04	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01
vs Ratio Perm	0.71	0.08	0.18	0.08	0.02	0.80	0.81	0.03	0.23	0.65
Uniform Delay, d1	55.4	48.3	49.7	52.0	51.8	33.5	14.3	6.6	15.1	18.9
Progression Delay, d2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.6	0.2	0.7	0.3	0.1	4.1	0.7	0.0	0.9	1.0
Delay (s)	65.9	48.5	50.3	52.3	51.8	33.5	14.3	6.6	15.1	17.2
Level of Service	E	D	D	D	D	D	D	A	B	A
Approach Delay (s)	58.9	E	51.3	D	51.3	D	51.3	D	51.3	D
Approach LOS	E	E	D	D	D	D	D	B	B	B
Intersection Summary										
HCM Average Control Delay	15.2									
HCM Volume to Capacity ratio	0.80									
Actuated Cycle Length (s)	120.0									
Intersection Capacity Utilization	74.8%									
Analysis Period (min)	15									
g Critical Lane Group										

2013 PM Peak NOBUILD Conditions
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Existing Geometry

Timings
3: Western Trail & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	134	2	21	9	20	241	2499	39	26	1742
Volume (vph)	134	2	21	9	20	241	2499	39	26	1742
Turn Type	Prot	pm+pt	pm+pt	pm+pt	Perm	pm+pt	Perm	pm+pt	pm+ov	pm+ov
Protected Phases	7	4	3	8	8	2	2	2	1	6
Permitted Phases	7	4	3	8	8	2	2	2	1	6
Detector Phase	7	4	3	8	8	2	2	2	1	6
Switch Phase	7	4	3	8	8	2	2	2	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	13.0	24.0	10.0	21.0	24.0	76.0	76.0	10.0	62.0	13.0
Total Split (%)	10.8%	20.0%	8.3%	17.5%	20.0%	63.3%	63.3%	8.3%	51.7%	10.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimizer?	None	Min	None	Min	None	Min	None	Min	None	Min
Recall Mode	8.1	13.5	11.5	6.4	90.5	83.7	72.9	66.9	80.1	None
Act Effect Green (s)	0.07	0.11	0.10	0.05	0.05	0.75	0.70	0.81	0.58	0.67
Actuated g/C Ratio	0.76	0.37	0.17	0.11	0.23	0.78	0.04	0.18	0.65	0.19
v/c Ratio	75.7	15.3	45.5	55.9	24.6	48.8	2.9	9.3	16.5	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.7	15.3	45.5	55.9	24.6	48.8	2.9	9.3	16.5	1.3
LOS	E	B	D	E	C	D	A	A	B	A
Approach Delay	54.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
Approach LOS	D	D	D	D	D	D	D	D	D	D
Intersection Summary										
Cycle Length: 120										
Actuated Cycle Length: 120										
Offset: 8 (7%), Referenced to phase 2:NBTL and 6:SBTL Start of Green										
Natural Cycle: 100										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.78										
Intersection Signal Delay: 12.6										
Intersection Capacity Utilization 75.4%										
Analysis Period (min) 15										
Splits and Phases: 3: Western Trail & Coors Blvd										

2013 PM Peak BUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis
3: Western Trail & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	134	2	21	9	20	241	2499	39	26	1742
Volume (vph)	134	2	21	9	20	241	2499	39	26	1742
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85
Fr Protected	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1577	1752	1845	1558	1752	5036	1752	5036	1558
Fr Permitted	0.95	1.00	0.69	1.00	0.69	1.00	1.00	0.69	1.00	1.00
Satd. Flow (perm)	3400	1577	1281	1845	1558	115	5036	115	5036	1558
Peak-hour factor, PHF	0.77	0.77	0.77	0.83	0.83	0.91	0.91	0.91	0.96	0.96
Adj. Flow (vph)	174	3	94	25	24	265	2746	43	27	1815
RTOR Reduction (vph)	0	83	0	0	0	22	0	0	11	0
Lane Group Flow (vph)	174	14	0	25	11	2	265	2746	32	27
Turn Type	Prot	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+ov	pm+ov
Protected Phases	7	4	3	8	8	2	2	2	1	6
Permitted Phases	7	4	3	8	8	2	2	2	1	6
Actuated Green, G (s)	8.1	13.5	11.4	8.4	8.4	88.5	79.8	79.8	65.0	73.1
Effective Green, g (s)	8.1	13.5	11.4	8.4	8.4	88.5	79.8	79.8	65.0	73.1
Actuated g/C Ratio	0.07	0.11	0.10	0.07	0.07	0.74	0.66	0.66	0.57	0.54
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	230	177	133	129	110	337	3349	1043	116	2728
v/c Ratio Prot	0.05	0.01	0.00	0.01	0.00	0.12	0.55	0.01	0.36	0.01
v/c Ratio Perm	0.76	0.08	0.19	0.09	0.02	0.79	0.82	0.03	0.23	0.08
Uniform Delay, d1	55.0	47.7	49.9	52.2	51.9	33.9	14.8	6.9	15.7	9.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.49	0.18	0.04	0.94	0.71
Incremental Delay, d2	13.2	0.2	0.7	0.3	0.1	3.8	0.7	0.0	0.9	1.1
Delay (s)	68.2	47.9	50.5	52.5	52.0	34.4	15.7	6.9	16.7	11.0
Level of Service	E	D	D	D	D	D	A	A	B	A
Approach Delay (s)	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9
Approach LOS	E	E	E	E	E	E	A	A	B	B
Intersection Summary										
HCM Average Control Delay	13.9									
HCM Volume to Capacity ratio	0.78									
Actuated Cycle Length (s)	120.0									
Intersection Capacity Utilization	75.4%									
Analysis Period (min)	15									
g Critical Lane Group										

2013 PM Peak BUILD Conditions
Existing Geometry
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Timings

4: Sevilla Ave & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SEB	SBR
Lane Configurations	21	1	8	1	8	1	1509	6	9	2092	5
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.95	1.00	0.85	1.00	0.85	1.00	0.85	1.00	0.85	1.00	0.85
Flt Protected	1752	1577	1752	1575	1752	1575	1752	1575	1752	1575	1752
Satd. Flow (prot)	1752	1577	1752	1575	1752	1575	1752	1575	1752	1575	1752
Flt Permitted	1752	1577	1752	1575	1752	1575	1752	1575	1752	1575	1752
Satd. Flow (perm)	1348	1577	1348	1575	1348	1575	1348	1575	1348	1575	1348
Peak-hour factor, PHF	0.75	0.75	0.75	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	1	31	9	1	39	7	1640	7	10	2351
RTOR Reduction (vph)	0	29	0	0	36	0	0	0	2	0	0
Lane Group Flow (vph)	28	3	0	9	4	0	7	1640	5	10	2351
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4
Actuated Green, G (s)	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
Effective Green, g (s)	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
Actuated g/C Ratio	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	91	106	92	106	92	106	92	106	92	106	92
v/c Ratio Prot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
v/c Ratio Perm	0.02	0.03	0.01	0.03	0.05	0.04	0.05	0.04	0.05	0.04	0.05
Uniform Delay, d1	53.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	0.1	0.5	0.1	0.1	0.3	0.0	0.1	0.1	0.7	0.0
Delay (s)	55.2	52.4	53.0	52.4	53.0	52.4	53.0	52.4	53.0	52.4	53.0
Level of Service	E	D	D	D	D	D	D	D	D	D	D
Approach Delay (s)	53.7	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
Approach LOS	D	D	D	D	D	D	D	D	D	D	D

Splits and Phases: 4: Sevilla Ave & Coors Blvd											
											



2013 AM Peak NOBUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis

4: Sevilla Ave & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SEB	SBR
Lane Configurations	21	1	23	8	1	36	6	1509	6	9	2092
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.95	1.00	0.85	1.00	0.85	1.00	0.85	1.00	0.85	1.00	0.85
Flt Protected	1752	1577	1752	1575	1752	1575	1752	1575	1752	1575	1752
Satd. Flow (prot)	1752	1577	1752	1575	1752	1575	1752	1575	1752	1575	1752
Flt Permitted	1752	1577	1752	1575	1752	1575	1752	1575	1752	1575	1752
Satd. Flow (perm)	1348	1577	1348	1575	1348	1575	1348	1575	1348	1575	1348
Peak-hour factor, PHF	0.75	0.75	0.75	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	1	31	9	1	39	7	1640	7	10	2351
RTOR Reduction (vph)	0	29	0	0	36	0	0	0	2	0	0
Lane Group Flow (vph)	28	3	0	9	4	0	7	1640	5	10	2351
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4
Actuated Green, G (s)	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
Effective Green, g (s)	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
Actuated g/C Ratio	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	91	106	92	106	92	106	92	106	92	106	92
v/c Ratio Prot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
v/c Ratio Perm	0.02	0.03	0.01	0.03	0.05	0.04	0.05	0.04	0.05	0.04	0.05
Uniform Delay, d1	53.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	0.1	0.5	0.1	0.1	0.3	0.0	0.1	0.1	0.7	0.0
Delay (s)	55.2	52.4	53.0	52.4	53.0	52.4	53.0	52.4	53.0	52.4	53.0
Level of Service	E	D	D	D	D	D	D	D	D	D	D
Approach Delay (s)	53.7	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
Approach LOS	D	D	D	D	D	D	D	D	D	D	D

Intersection Summary		
HCM Average Control Delay	6.7	HCM Level of Service
HCM Volume to Capacity ratio	0.56	
Actuated Cycle Length (s)	120.0	Sum of lost time (s)
Intersection Capacity Utilization	56.6%	ICU Level of Service
Analysis Period (min)	15	
Critical Lane Group		



2013 AM Peak NOBUILD Conditions

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Existing Geometry

Timings
4: Sevilla Ave & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	21	1	8	1	8	1549	6	9	2103
Volume (vph)	Perm	4	8	5	2	2	2	6	6
Turn Type	Perm	4	8	5	2	2	2	6	6
Protected Phases	4	4	8	8	5	2	2	1	6
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (%)	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%
Total Split (%)	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead/Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Eff Green (s)	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
Actuated g/C Ratio	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
v/c Ratio	0.31	0.24	0.10	0.28	0.05	0.44	0.01	0.04	0.62
Control Delay	61.3	22.0	53.4	21.2	2.5	5.7	2.3	2.1	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	22.0	53.4	21.2	2.5	5.7	2.3	2.1	7.5
LOS	E	C	D	C	A	A	A	A	A
Approach Delay	40.3	27.1	C	C	A	A	A	A	A
Approach LOS	D	C	C	C	A	A	A	A	A
Intersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120									
Offset: 0 (0%), Referenced to phase 2/NBTL and 6/SBTL, Start of Green									
Natural Cycle: 70									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.62									
Intersection Signal Delay: 7.5									
Intersection Capacity Utilization 56.8%									
Analysis Period (min) 15									



2013 AM Peak BUILD Conditions
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Existing Geometry

HCM Signalized Intersection Capacity Analysis
4: Sevilla Ave & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	21	1	23	8	1	38	6	1549	6	9	2103	5
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00
Lane Util. Factor	1.00	0.85	1.00	0.85	1.00	0.85	1.00	0.85	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1752	1577	1752	1575	1752	1575	1752	1568	1752	1568	1752	1568
Flt Permitted	0.73	1.00	0.74	1.00	0.73	1.00	0.05	1.00	1.00	0.12	1.00	1.00
Satd. Flow (perm)	1348	1577	1358	1575	1348	1575	90	5036	1568	219	5036	1568
Peak-hour factor, PHF	0.75	0.75	0.75	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.89
Adj. Flow (vph)	28	1	31	9	1	39	7	1684	7	10	2363	6
RTOR Reduction (vph)	0	29	0	0	36	0	0	0	2	0	0	1
Lane Group Flow (vph)	28	3	0	9	4	0	7	1684	5	10	2363	5
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	pm-pt	Perm	pm-pt	Perm	pm-pt	Perm
Protected Phases	4	4	4	8	4	4	5	2	2	1	6	6
Permitted Phases	4	4	4	8	4	4	2	2	2	6	6	6
Actuated Green, G (s)	8.1	8.1	8.1	8.1	8.1	8.1	96.9	91.3	91.3	96.9	91.3	91.3
Effective Green, g (s)	8.1	8.1	8.1	8.1	8.1	8.1	96.9	91.3	91.3	96.9	91.3	91.3
Actuated g/C Ratio	0.07	0.07	0.07	0.07	0.07	0.07	0.91	0.76	0.76	0.91	0.76	0.76
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	91	106	92	106	92	106	150	3832	1193	248	3832	1193
v/c Ratio Prot	0.02	0.00	0.00	0.00	0.00	0.00	c0.00	0.33	0.00	0.00	c0.47	0.00
vs Ratio Perm	0.31	0.03	0.10	0.03	0.01	0.04	0.04	0.00	0.00	0.03	0.62	0.00
Uniform Delay, d1	53.3	52.3	52.5	52.3	52.5	52.3	4.3	5.2	3.4	2.7	6.5	3.4
Progression Delay, d1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	0.1	0.5	0.1	0.5	0.1	0.1	0.4	0.0	0.1	0.8	0.0
Delay (s)	55.2	52.4	53.0	52.4	53.0	52.4	4.4	5.5	3.5	2.7	7.2	3.4
Level of Service	E	D	D	D	D	D	A	A	A	A	A	A
Approach Delay (s)	53.7	52.5	52.5	52.5	52.5	52.5	5.5	5.5	5.5	7.2	7.2	7.2
Approach LOS	D	D	D	D	D	D	A	A	A	A	A	A
Intersection Summary												
HCM Average Control Delay	7.7	HCM Level of Service										
HCM Volume to Capacity ratio	0.56	A										
Actuated Cycle Length (s)	120.0	Sum of lost time (s)										
Intersection Capacity Utilization	56.8%	ICU Level of Service										
Analysis Period (min)	15	B										
Critical Lane Group												

2013 AM Peak BUILD Conditions
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Existing Geometry

Timings

4: Sevilla Ave & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SSR
Lane Configurations	36	1	2	4	55	2544	11	28	1971
Volume (vph)	36	1	2	4	55	2544	11	28	1971
Turn Type	Perm	Perm	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm
Protected Phases	4	4	8	8	5	2	2	6	6
Permitted Phases	4	4	8	8	5	2	2	6	6
Detector Phase	4	4	8	8	5	2	2	6	6
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (%)	17.5%	17.5%	17.5%	17.5%	17.5%	17.5%	17.5%	17.5%	17.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Eff Green (s)	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
Actuated Green (s)	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Actuated g/C Ratio	0.44	0.25	0.02	0.19	0.33	0.77	0.01	0.20	0.56
v/c Ratio	64.0	19.1	48.5	23.4	10.1	2.7	0.5	5.5	7.9
Control Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	19.1	48.5	23.4	10.1	2.7	0.5	5.5	7.9
LOS	E	B	D	C	B	A	A	A	A
Approach Delay	43.3		25.0		2.9			7.6	
Approach LOS	D		C		A			A	
Intersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120									
Offset: 13 (11%), Referenced to phase 2/NBTL and 6/SBTL, Start of Green									
Natural Cycle: 90									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.77									
Intersection Signal Delay: 5.7									
Intersection Capacity Utilization 68.1%									
Analysis Period (min) 15									
Spills and Phases:	4: Sevilla Ave & Coors Blvd								
	a1	a2	a3	a4	a5	a6	a7	a8	a9

2013 PM Peak NOBUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis

4: Sevilla Ave & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SSR
Lane Configurations	36	1	2	4	55	2544	11	28	1971
Volume (vph)	36	1	2	4	55	2544	11	28	1971
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr	1.00	0.85	1.00	0.87	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1575	1752	1606	1752	1575	1752	1575	1575
Flt Permitted	0.74	1.00	0.73	1.00	0.74	1.00	0.73	1.00	1.00
Satd. Flow (perm)	1362	1575	1347	1606	1362	1575	1347	1606	1606
Peak-hour factor, PHF	0.75	0.75	0.75	0.91	0.91	0.88	0.88	0.88	0.95
Adj. Flow (vph)	48	1	40	12	4	25	62	2891	12
RTOR Reduction (vph)	0	37	0	0	23	0	0	0	0
Lane Group Flow (vph)	48	4	10	2	6	0	62	2891	9
Turn Type	Perm	Perm	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm
Protected Phases	4	4	8	8	5	2	2	6	6
Permitted Phases	4	4	8	8	5	2	2	6	6
Actuated Green, G (s)	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
Effective Green, g (s)	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
Actuated g/C Ratio	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	109	126	108	128	188	3756	1169	148	3739
v/c Ratio Prot	0.00	0.00	0.00	0.00	0.02	0.57	0.01	0.15	0.03
v/c Ratio Perm	0.04	0.03	0.02	0.05	0.33	0.77	0.01	0.20	0.55
Uniform Delay, d1	52.6	50.9	50.9	51.0	4.7	9.1	3.9	10.2	6.8
Progression Factor	1.00	1.00	1.00	1.00	3.00	0.17	0.20	1.00	1.00
Incremental Delay, d2	2.8	0.1	0.1	0.2	0.7	1.0	0.0	0.7	0.6
Delay (s)	55.5	51.0	50.9	51.1	14.8	2.6	0.8	10.9	7.4
Level of Service	E	D	D	D	B	A	A	B	A
Approach Delay (s)	53.4		51.1		2.8			7.3	
Approach LOS	D		D		A			A	
Intersection Summary									
HCM Average Control Delay	5.8								
HCM Volume to Capacity ratio	0.68								
Actuated Cycle Length (s)	120.0								
Intersection Capacity Utilization	66.1%								
Analysis Period (min)	15								
c Critical Lane Group									

2013 PM Peak NOBUILD Conditions

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Existing Geometry

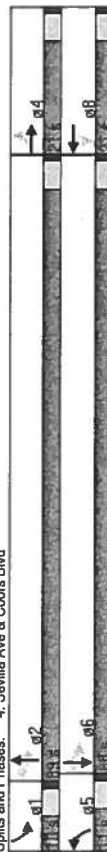
Timings

4: Sevilla Ave & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations	36	1	2	4	55	2567	11	28	2013
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turn Type	Perm	Perm	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm
Protected Phases	4	4	8	8	5	2	2	6	6
Permitted Phases	4	4	8	8	5	2	2	6	6
Detector Phase	4	4	8	8	5	2	2	6	6
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	21.0	21.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0
Minimum Split (s)	21.0	21.0	21.0	21.0	11.0	89.0	89.0	10.0	88.0
Total Split (s)	17.5%	17.5%	17.5%	17.5%	9.2%	74.2%	74.2%	8.3%	73.3%
Total Spill (%)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Yellow Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lost Time Adjust (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead/Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	9.6	9.6	9.6	9.6	95.9	89.5	89.5	94.8	89.0
Actuated Green (s)	0.08	0.08	0.08	0.08	0.80	0.75	0.75	0.79	0.74
Actuated g/C Ratio	0.44	0.25	0.02	0.19	0.34	0.78	0.01	0.20	0.57
v/c Ratio	64.0	19.1	48.5	23.4	11.5	4.0	1.2	5.6	8.0
Control Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Delay	64.0	19.1	48.5	23.4	11.5	4.0	1.2	5.6	8.0
Total Delay	E	B	D	C	B	A	A	A	A
LOS	E	B	D	C	B	A	A	A	A
Approach Delay	43.3	25.0	C	C	A	A	7.8	A	A
Approach LOS	D	C	C	C	A	A	A	A	A
Intersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120									
Offset: 1 (1%), Referenced to Phase 2:NBTL and 6:SRTL, Start of Green									
Natural Cycle: 90									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.78									
Intersection Signal Delay: 6.4									
Intersection Capacity Utilization 66.6%									
Analysis Period (min) 15									

Split and Phases: 4: Sevilla Ave & Coors Blvd



2013 PM Peak BUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis

4: Sevilla Ave & Coors Blvd

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations	36	1	30	2	4	23	55	2567	11
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	0.85	1.00	0.87	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	1575	1752	1606	1752	1506	1568	1752	1506
Flt Permitted	0.74	1.00	0.73	1.00	0.73	1.00	1.00	0.74	1.00
Satd. Flow (perm)	1362	1575	1347	1606	1362	1506	1568	1362	1506
Peak-hour factor, PHF	0.75	0.75	0.75	0.91	0.91	0.88	0.88	0.91	0.95
Adj. Flow (vph)	48	1	40	2	4	25	62	2917	12
RTOR Reduction (vph)	0	37	0	0	23	0	0	3	0
Lane Group Flow (vph)	48	4	0	2	6	0	62	2917	9
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4
Actuated Green, G (s)	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
Effective Green, g (s)	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
Actuated g/C Ratio	0.06	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	109	126	108	128	184	3756	1169	148	3735
v/c Ratio Prot	0.04	0.00	0.00	0.00	0.02	0.58	0.01	0.15	0.03
v/c Ratio Perm	0.44	0.03	0.02	0.05	0.34	0.78	0.01	0.20	0.57
Uniform Delay, d1	52.6	50.9	50.9	51.0	5.0	9.2	3.9	10.6	6.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	3.27	0.51	1.00	1.00
Incremental Delay, d2	2.8	0.1	0.1	0.2	0.7	1.0	0.0	0.7	0.6
Delay (s)	55.5	51.0	50.9	51.1	17.1	3.8	2.0	11.2	7.5
Level of Service	E	D	D	D	B	A	A	B	A
Approach Delay (s)	53.4	D	D	D	51.1	A	A	7.5	A
Approach LOS	D	D	D	D	A	A	A	A	A
Intersection Summary									
HCM Average Control Delay	6.6								
HCM Volume to Capacity ratio	0.69								
Actuated Cycle Length (s)	120.0								
Intersection Capacity Utilization	66.6%								
Analysis Period (min)	15								
g Critical Lane Group									

2013 PM Peak BUILD Conditions

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Existing Geometry

Timings
5: St Joseph's Dr & Arisco Dr

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Line Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	35	307	56	39	90	13	72	47	393
Volume (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	4	4	8	8	2	2	6	6
Protected Phases	4	4	4	8	8	2	2	6	6
Permitted Phases	4	4	4	8	8	2	2	6	6
Detector Phase	4	4	4	8	8	2	2	6	6
Switch Phase	4	4	4	8	8	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Minimum Split (%)	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	41.7%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjunct (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag									
Lead-Lag Optimizer?									
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.14	0.78	0.15	0.51	0.19	0.03	0.10	0.07	0.40
Control Delay	34.7	55.7	12.8	59.9	30.9	8.3	6.0	8.1	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	55.7	12.8	59.9	30.9	8.3	6.0	8.1	10.4
LOS	C	E	B	E	C	A	A	A	B
Approach Delay	47.8			38.2			6.3		10.2
Approach LOS	D			D			A		B
Intersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120									
Offset: 5 (4%), Referenced to phase 2: NBTL and 6: SBT, Start of Green									
Natural Cycle: 45									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.78									
Intersection Signal Delay: 26.3									
Intersection Capacity Utilization 54.9%									
Analysis Period (min) 15									
Spills and Phases: 5: St Joseph's Dr & Arisco Dr									
	q2			q4			q6		

2013 AM Peak NOBUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis
5: St Joseph's Dr & Arisco Dr

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	35	307	56	39	90	13	72	47	393
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	1.00	1.00	0.85	1.00	0.97	1.00	0.95	1.00	0.99
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1752	1752	1752	1752	1829
Flt Permitted	0.65	1.00	1.00	0.24	1.00	0.42	1.00	0.68	1.00
Satd. Flow (perm)	1208	1845	1568	434	3391	774	1755	1253	1829
Peak-hour factor, PHF	0.91	0.91	0.91	0.75	0.75	0.88	0.88	0.82	0.82
Adj. Flow (vph)	38	337	62	52	120	33	15	82	39
RTOR Reduction (vph)	0	0	38	0	25	0	10	0	0
Lane Group Flow (vph)	38	337	24	52	128	0	15	111	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	8	8	2	2	6	6
Permitted Phases	4	4	4	8	8	2	2	6	6
Actuated Green, G (s)	28.0	28.0	28.0	28.0	28.0	82.0	82.0	82.0	82.0
Effective Green, g (s)	28.0	28.0	28.0	28.0	28.0	82.0	82.0	82.0	82.0
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.23	0.58	0.58	0.58	0.58
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	282	431	366	101	791	529	1199	856	1250
v/c Ratio Prot	0.03	0.78	0.02	0.12	0.04	0.02	0.02	0.05	0.05
v/c Ratio Perm	0.13	0.78	0.07	0.51	0.16	0.03	0.03	0.07	0.40
Uniform Delay, d1	36.4	43.1	35.8	40.1	36.6	6.1	6.4	6.3	8.3
Progression Delay, d2	1.00	1.00	1.00	1.09	1.12	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	8.9	0.1	4.4	0.1	0.1	0.2	0.1	1.0
Delay (s)	36.6	52.1	35.9	47.9	41.1	6.2	6.6	6.5	9.3
Level of Service	D	D	D	D	D	A	A	A	A
Approach Delay (s)	48.4			42.8		6.5		9.0	
Approach LOS	D			D		A		A	
Intersection Summary									
HCM Average Control Delay	26.8								
HCM Volume to Capacity ratio	0.50								
Actuated Cycle Length (s)	120.0								
Intersection Capacity Utilization	54.9%								
Analysis Period (min)	15								
c Critical Lane Group									

2013 AM Peak NOBUILD Conditions
Existing Geometry
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Timings

5: St Joseph's Dr & Atrisco Dr

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	35	308	56	40	92	13	72	47	393
Volume (vph)	Perm	4	Perm	Perm	Perm	Perm	2	Perm	6
Turn Type									
Protected Phases	4	4	4	8	8	2	2	6	6
Detecter Phase	4	4	4	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
Total Split (%)	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag									
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.13	0.78	0.15	0.52	0.19	0.03	0.10	0.07	0.41
Control Delay	34.5	55.4	12.4	57.6	28.2	8.4	6.1	8.1	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	55.4	12.4	57.6	28.2	8.4	6.1	8.1	10.5
LOS	C	E	B	E	C	A	A	A	B
Approach Delay	47.5								
Approach LOS	D								
Intersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120									
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL Start of Green									
Natural Cycle: 45									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.78									
Intersection Signal Delay: 25.9									
Intersection Capacity Utilization 55.0%									
Analysis Period (min) 15									
Spills and Phases: 5: St Joseph's Dr & Atrisco Dr									

2013 AM Peak BUILD Conditions

Existing Geometry
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HCM Signalized Intersection Capacity Analysis
5: St Joseph's Dr & Atrisco Dr

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	35	308	56	40	92	13	72	47	393
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	8	8	2	2	6	6
Detecter Phase	4	4	4	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
Total Split (%)	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag									
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.13	0.78	0.15	0.52	0.19	0.03	0.10	0.07	0.41
Control Delay	34.5	55.4	12.4	57.6	28.2	8.4	6.1	8.1	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	55.4	12.4	57.6	28.2	8.4	6.1	8.1	10.5
LOS	C	E	B	E	C	A	A	A	B
Approach Delay	47.5								
Approach LOS	D								
Intersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120									
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL Start of Green									
Natural Cycle: 45									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.78									
Intersection Signal Delay: 25.9									
Intersection Capacity Utilization 55.0%									
Analysis Period (min) 15									
Spills and Phases: 5: St Joseph's Dr & Atrisco Dr									

2013 AM Peak BUILD Conditions

Existing Geometry
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Timings

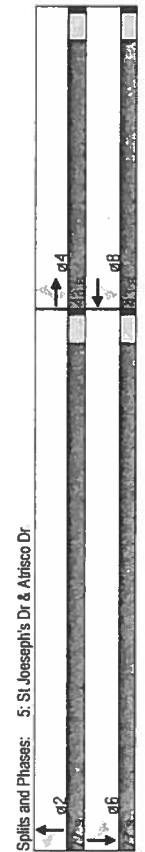
5: St Joseph's Dr & Atrisco Dr

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	4	4	4	4	4	4	4	4	4
Volume (vph)	44	173	46	34	303	62	327	22	162
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	8	8	2	2	6	6
Permitted Phases	4	4	4	8	8	2	2	6	6
Detector Phase	4	4	4	8	8	2	2	6	6
Switch Phase	4	4	4	8	8	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Total Split (%)	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag									
Lead-Lag Optimize?									

Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Eff Green (s)	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
v/c Ratio	0.61	0.65	0.17	0.32	0.72	0.08	0.33	0.04	0.15
Control Delay	75.5	56.2	11.7	32.0	35.4	5.0	6.1	5.0	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.5	56.2	11.7	32.0	35.4	5.0	6.1	5.0	4.7
LOS	E	E	B	C	D	A	A	A	A
Approach Delay	51.7								
Approach LOS	D								

Intersection Summary	
Cycle Length: 120	
Actual Cycle Length: 120	
Offset: 74 (62%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 23.9	
Intersection Capacity Utilization: 56.0%	
Analysis Period (min): 15	
Intersection LOS: C	
ICU Level of Service: B	



2013 PM Peak NOBUILD Conditions

Existing Geometry
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HCM Signalized Intersection Capacity Analysis

5: St Joseph's Dr & Atrisco Dr

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	4	4	4	4	4	4	4	4	4
Volume (vph)	44	173	46	34	303	62	327	22	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1752	1845	1568	1752	3407	1752	1807	1752	1802
Flt Permitted	0.27	1.00	1.00	0.39	1.00	0.63	1.00	0.47	1.00
Satd. Flow (perm)	499	1845	1568	727	3407	1164	1807	874	1802
Peak-hour factor, PHF	0.86	0.86	0.86	0.87	0.87	0.84	0.84	0.84	0.84
Adj. Flow (vph)	51	201	53	39	348	80	389	62	23
RTOR Reduction (vph)	0	0	44	0	20	0	0	0	0
Lane Group Flow (vph)	51	201	9	39	408	0	74	448	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm

Protected Phases	4	4	4	8	8	2	2	6	6
Actuated Green, G (s)	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
Effective Green, g (s)	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	84	309	263	122	571	872	1354	655	1350
v/c Ratio Prot	0.10	0.11	0.01	0.05	0.06	0.06	0.03	0.03	0.11
v/c Ratio Perm	0.61	0.65	0.03	0.32	0.71	0.08	0.33	0.04	0.15
Uniform Delay, d1	46.3	46.7	41.8	43.9	47.2	4.0	5.0	3.9	4.2
Progression Factor	1.00	1.00	1.00	0.59	0.64	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.8	4.8	0.1	1.5	4.1	0.2	0.7	0.1	0.2
Delay (s)	58.1	51.5	41.9	27.5	34.2	4.2	5.7	4.0	4.5
Level of Service	E	D	D	C	C	A	A	A	A
Approach Delay (s)	50.9			33.6		5.5		4.4	
Approach LOS	D			C		A		A	

Intersection Summary	
HCM Average Control Delay	23.1
HCM Volume to Capacity ratio	0.40
Actuated Cycle Length (s)	120.0
Intersection Capacity Utilization	56.0%
Analysis Period (min)	15
c Critical Lane Group	

2013 PM Peak NOBUILD Conditions

Existing Geometry
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Timings

5: St Joseph's Dr & Atrisco Dr

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	4	175	46	35	304	62	327	22	162
Volume (vph)	44	175	46	35	304	62	327	22	162
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	8	8	2	2	6	6
Permitted Phases	4	4	4	8	8	2	2	6	6
Detector Phase	4	4	4	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Total Split (%)	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lost Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead-Lag Optimizer?									
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Eff Green (s)	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
v/c Ratio	0.61	0.65	0.17	0.33	0.72	0.08	0.33	0.04	0.15
Control Delay	74.5	56.3	11.7	29.5	32.6	5.0	6.2	5.0	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.5	56.3	11.7	29.5	32.6	5.0	6.2	5.0	4.7
LOS	E	E	B	C	C	A	A	A	A
Approach Delay	51.7			32.3					
Approach LOS	D			C					
Intersection Summary									
Cycle Length: 120									
Actual Cycle Length: 120									
Offset: 71 (59%), Referenced to phase 2(NBT) and 6(SBT), Start of Green									
Natural Cycle: 45									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.72									
Intersection Signal Delay: 23.1									
Intersection Capacity Utilization 56.1%									
Analysis Period (min) 15									
Spills and Phases:									
5: St Joseph's Dr & Atrisco Dr									

2013 PM Peak BUILD Conditions

Existing Geometry
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HCM Signalized Intersection Capacity Analysis

5: St Joseph's Dr & Atrisco Dr

Terry O. Brown, P.E.
6/27/2012 - Synchro 7













Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	4	175	46	35	304	70	62	327	22
Volume (vph)	44	175	46	35	304	70	62	327	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	1.00	0.85	1.00	0.97	1.00	0.98	1.00	0.98
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1752	1845	1568	1752	3407	1752	1806	1752	1802
Flt Permitted	0.27	1.00	1.00	0.39	1.00	0.63	1.00	0.47	1.00
Satd. Flow (perm)	499	1845	1568	720	3407	1164	1806	873	1802
Peak-hour factor, PHF	0.86	0.86	0.86	0.87	0.87	0.87	0.84	0.84	0.84
Adj. Flow (vph)	51	203	53	40	349	80	74	389	63
RTOR Reduction (vph)	0	0	44	0	20	0	0	0	0
Lane Group Flow (vph)	51	203	9	40	409	0	74	449	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	8	8	2	2	6	6
Actuated Green, G (s)	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
Effective Green, g (s)	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	84	311	264	121	574	871	1351	663	1348
v/c Ratio Prot	0.11								
v/c Ratio Perm	0.10	0.65	0.03	0.33	0.71	0.06	0.03	0.03	0.11
Uniform Delay, d1	46.2	46.6	41.7	43.9	47.2	4.1	5.1	3.9	4.3
Progression Factor	1.00	1.00	1.00	1.00	0.53	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.8	4.9	0.1	1.5	4.0	0.2	0.7	0.1	0.2
Delay (s)	58.0	51.5	41.8	45.4	51.3	4.3	5.7	4.0	4.5
Level of Service	E	D	D	C	C	A	A	A	A
Approach Delay (s)	50.9			30.7					
Approach LOS	D			C					
Intersection Summary									
HCM Average Control Delay	22.2								
HCM Volume to Capacity ratio	0.40								
Actuated Cycle Length (s)	120.0								
Intersection Capacity Utilization	56.1%								
Analysis Period (min)	15								
c Critical Lane Group									

2013 PM Peak BUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 6: Western Trail & Quaker Hts

Terry O. Brown, P.E.
6/27/2012 - Synchro 7













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱		↱	↑↑↱			↕			↕	
Volume (veh/h)	1	365	3	5	104	5	2	2	20	22	4	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.78	0.78	0.78	0.86	0.86	0.86	0.75	0.75	0.75
Hourly flow rate (vph)	1	406	3	6	133	6	2	2	23	29	5	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage veh		2										
Upstream signal (ft)					629							
pX, platoon unblocked												
vC, conflicting volume	140			409			497	562	204	379	560	70
vC1, stage 1 conf vol							409	409		149	149	
vC2, stage 2 conf vol							87	153		229	411	
vCu, unblocked vol	140			409			497	562	204	379	560	70
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	97	96	99	99
cM capacity (veh/h)	1434			1139			563	556	799	666	551	975
Direction, Lane, #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	204	206	6	89	51	28	40					
Volume Left	1	0	6	0	0	2	29					
Volume Right	0	3	0	0	6	23	5					
cSH	1434	1700	1139	1700	1700	746	675					
Volume to Capacity	0.00	0.12	0.01	0.05	0.03	0.04	0.06					
Queue Length 95th (ft)	0	0	0	0	0	3	5					
Control Delay (s)	0.0	0.0	8.2	0.0	0.0	10.0	10.7					
Lane LOS	A		A			B	B					
Approach Delay (s)	0.0		0.4			10.0	10.7					
Approach LOS						B	B					
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			25.9%		ICU Level of Service					A		
Analysis Period (min)			15									

2013 AM Peak NOBUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 6: Western Trail & Quaker Hts

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↔		↵	↑↑↔			↕			↕	
Volume (veh/h)	1	365	3	16	104	5	3	2	60	22	4	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.78	0.78	0.78	0.86	0.86	0.86	0.75	0.75	0.75
Hourly flow rate (vph)	1	406	3	21	133	6	3	2	70	29	5	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage veh		2										
Upstream signal (ft)					629							
pX, platoon unblocked												
vC, conflicting volume	140			409			525	590	204	453	589	70
vC1, stage 1 conf vol							409	409		178	178	
vC2, stage 2 conf vol							116	181		276	411	
vCu, unblocked vol	140			409			525	590	204	453	589	70
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			99	100	91	95	99	99
cM capacity (veh/h)	1434			1139			557	547	799	578	534	975
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	204	206	21	89	51	76	40					
Volume Left	1	0	21	0	0	3	29					
Volume Right	0	3	0	0	6	70	5					
cSH	1434	1700	1139	1700	1700	773	604					
Volume to Capacity	0.00	0.12	0.02	0.05	0.03	0.10	0.07					
Queue Length 95th (ft)	0	0	1	0	0	8	5					
Control Delay (s)	0.0	0.0	8.2	0.0	0.0	10.2	11.4					
Lane LOS	A		A			B	B					
Approach Delay (s)	0.0		1.1			10.2	11.4					
Approach LOS						B	B					
Intersection Summary												
Average Delay				2.0								
Intersection Capacity Utilization				28.3%	ICU Level of Service			A				
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis 6: Western Trail & Quaker Hts

Terry O. Brown, P.E.
6/27/2012 - Synchro 7












												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↵	↑↑			↕			↕	
Volume (veh/h)	2	172	1	13	349	17	10	2	10	11	2	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.90	0.90	0.90	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	2	198	1	14	388	19	13	3	13	15	3	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLT			None							
Median storage veh		2										
Upstream signal (ft)					629							
pX, platoon unblocked												
vC, conflicting volume	407			199			428	638	99	544	630	203
vC1, stage 1 conf vol							203	203		426	426	
vC2, stage 2 conf vol							225	436		118	203	
vCu, unblocked vol	407			199			428	638	99	544	630	203
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			98	99	99	97	99	100
cM capacity (veh/h)	1141			1364			654	527	934	540	531	800
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	101	100	14	259	148	29	19					
Volume Left	2	0	14	0	0	13	15					
Volume Right	0	1	0	0	19	13	1					
cSH	1141	1700	1364	1700	1700	739	552					
Volume to Capacity	0.00	0.06	0.01	0.15	0.09	0.04	0.03					
Queue Length 95th (ft)	0	0	1	0	0	3	3					
Control Delay (s)	0.2	0.0	7.7	0.0	0.0	10.1	11.8					
Lane LOS	A		A			B	B					
Approach Delay (s)	0.1		0.3			10.1	11.8					
Approach LOS						B	B					
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			20.8%	ICU Level of Service					A			
Analysis Period (min)			15									

2013 PM Peak NOBUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 6: Western Trail & Quaker Hts

Terry O. Brown, P.E.
6/27/2012 - Synchro 7

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↵	↑↑			↕			↕	
Volume (veh/h)	2	172	1	55	349	17	10	2	33	11	2	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.90	0.90	0.90	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	2	198	1	61	388	19	13	3	44	15	3	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLT			None							
Median storage veh		2										
Upstream signal (ft)					629							
pX, platoon unblocked												
vC, conflicting volume	407			199			522	732	99	668	723	203
vC1, stage 1 conf vol							203	203		519	519	
vC2, stage 2 conf vol							319	529		149	203	
vCu, unblocked vol	407			199			522	732	99	668	723	203
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			98	99	95	97	99	100
cM capacity (veh/h)	1141			1364			576	467	934	454	468	800
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	101	100	61	259	148	60	19					
Volume Left	2	0	61	0	0	13	15					
Volume Right	0	1	0	0	19	44	1					
cSH	1141	1700	1364	1700	1700	790	470					
Volume to Capacity	0.00	0.06	0.04	0.15	0.09	0.08	0.04					
Queue Length 95th (ft)	0	0	4	0	0	6	3					
Control Delay (s)	0.2	0.0	7.8	0.0	0.0	9.9	13.0					
Lane LOS	A		A			A	B					
Approach Delay (s)	0.1		1.0			9.9	13.0					
Approach LOS						A	B					
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			28.4%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 7: St Joeseeph's Dr & 'A'

Terry O. Brown, P.E.
6/27/2012 - Synchro 7



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Volume (veh/h)	1	325	116	15	55	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.85	0.85
Hourly flow rate (vph)	1	433	155	20	65	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		762	480			
pX, platoon unblocked					0.83	
vC, conflicting volume	175				601	87
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	175				415	87
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				86	100
cM capacity (veh/h)	1392				466	951

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	435	103	72	68
Volume Left	1	0	0	65
Volume Right	0	0	20	4
cSH	1392	1700	1700	479
Volume to Capacity	0.00	0.06	0.04	0.14
Queue Length 95th (ft)	0	0	0	12
Control Delay (s)	0.0	0.0	0.0	13.8
Lane LOS	A			B
Approach Delay (s)	0.0	0.0		13.8
Approach LOS				B

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization		27.9%	ICU Level of Service A
Analysis Period (min)		15	

2013 AM Peak BUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 7: St Joeseeph's Dr & 'A'

Terry O. Brown, P.E.
6/27/2012 - Synchro 7



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕↔		↕	
Volume (veh/h)	3	257	398	57	31	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.85	0.85
Hourly flow rate (vph)	3	273	423	61	36	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		762	480			
pX, platoon unblocked					0.91	
vC, conflicting volume	484				734	242
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	484				658	242
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				90	100
cM capacity (veh/h)	1068				358	756
Direction, Lane #	EB 1	WB 1	WB 2	SB 1		
Volume Total	277	282	202	39		
Volume Left	3	0	0	36		
Volume Right	0	0	61	2		
cSH	1068	1700	1700	370		
Volume to Capacity	0.00	0.17	0.12	0.10		
Queue Length 95th (ft)	0	0	0	9		
Control Delay (s)	0.1	0.0	0.0	15.9		
Lane LOS	A			C		
Approach Delay (s)	0.1	0.0		15.9		
Approach LOS				C		
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utilization			25.9%	ICU Level of Service		A
Analysis Period (min)			15			

2013 PM Peak BUILD Conditions

Existing Geometry
D:\ATOB\PROJECTS_2012\Oxbow_Apartments\Synchro\2013PBX.syn

Traffic Count Data Sheet

Year Counts Taken:

2012

E-W Street Sequoia Rd
N-S Street: Coors BlvdSpeed Limit (Sequoia Rd)= 30 MPH
Speed Limit (Coors Blvd)= 45 MPH
Date of Count: 6/21/12

Begin Time	End Time	Eastbound (Sequoia Rd)			Westbound (Sequoia Rd)			Northbound (Coors Blvd)			Southbound (Coors Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	3	0	34	27	4	5	44	466	42	5	458	7
7:15 AM	7:30 AM	21	7	36	24	8	6	12	240	5	6	554	10
7:30 AM	7:45 AM	16	6	42	16	4	3	7	280	8	4	589	8
7:45 AM	8:00 AM	12	12	43	14	6	2	15	311	11	4	592	20
8:00 AM	8:15 AM	8	10	24	19	10	5	17	283	14	9	498	8
8:15 AM	8:30 AM	49	43	40	8	9	8	24	242	44	8	495	43
8:30 AM	8:45 AM	47	8	37	24	9	6	24	244	9	9	520	46
8:45 AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
AM Peak Hour Volumes		57	35	145	73	28	16	51	1114	38	23	2233	46
% of Total Traffic		1.5%	0.9%	3.8%	1.9%	0.7%	0.4%	1.3%	28.9%	1.0%	0.6%	57.9%	1.2%
% Directional			6.1%			3.0%			31.2%			59.7%	
AM Peak Hour Factor			0.88			0.77			0.89			0.93	

Begin Time	End Time	Eastbound (Sequoia Rd)			Westbound (Sequoia Rd)			Northbound (Coors Blvd)			Southbound (Coors Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	28	32	44	34	29	19	38	456	43	48	343	6
4:15 PM	4:30 PM	23	26	23	35	16	44	42	548	44	20	364	8
4:30 PM	4:45 PM	37	9	44	41	27	8	37	573	15	11	346	8
4:45 PM	5:00 PM	34	32	31	22	22	10	44	605	12	15	404	9
5:00 PM	5:15 PM	27	35	39	36	23	18	39	618	12	13	351	7
5:15 PM	5:30 PM	21	22	26	40	28	10	26	663	19	16	370	8
5:30 PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	33	4
5:45 PM	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Hour Volumes		119	98	140	139	100	46	146	2459	58	55	1471	32
% of Total Traffic		2.4%	2.0%	2.9%	2.9%	2.1%	0.9%	3.0%	50.6%	1.2%	1.1%	30.2%	0.7%
% Directional			7.3%			5.9%			54.8%			32.0%	
PM Peak Hour Factor			0.88			0.91			0.94			0.91	

Traffic Count Data Sheet

Year Counts Taken: **2012** E-W Street St. Joseph's Dr Speed Limit (St. Joseph's Dr)= **25** MPH
 N-S Street: Coors Blvd Speed Limit (Coors Blvd)= **25** MPH
 Date of Count: **6/7/12**

Begin Time	End Time	Eastbound (St. Joseph's Dr)			Westbound (St. Joseph's Dr)			Northbound (Coors Blvd)			Southbound (Coors Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	48	2	42	42	4	3	8	458	9	2	492	8
7:15 AM	7:30 AM	39	1	18	14	0	6	5	247	11	8	569	17
7:30 AM	7:45 AM	60	15	27	16	2	11	10	281	19	16	595	14
7:45 AM	8:00 AM	61	13	35	37	6	18	4	254	80	46	589	22
8:00 AM	8:15 AM	37	3	14	21	3	13	9	229	21	11	501	23
8:15 AM	8:30 AM	42	4	22	4	5	9	7	225	43	40	522	22
8:30 AM	8:45 AM	48	3	46	43	4	6	8	258	43	44	483	24
8:45 AM	9:00 AM	54	4	44	43	2	9	40	274	43	46	475	47
AM Peak Hour Volumes		197	32	94	88	11	48	28	1011	131	81	2254	76
% of Total Traffic		4.9%	0.8%	2.3%	2.2%	0.3%	1.2%	0.7%	25.0%	3.2%	2.0%	55.6%	1.9%
% Directional			8.0%			3.6%			28.9%			59.5%	
AM Peak Hour Factor			0.74			0.60			0.87			0.92	

Begin Time	End Time	Eastbound (St. Joseph's Dr)			Westbound (St. Joseph's Dr)			Northbound (Coors Blvd)			Southbound (Coors Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	37	4	24	40	3	43	34	468	9	7	399	60
4:15 PM	4:30 PM	37	3	49	40	3	40	33	578	8	44	405	55
4:30 PM	4:45 PM	46	3	44	26	4	43	34	624	43	44	343	60
4:45 PM	5:00 PM	45	6	17	18	3	16	17	616	18	24	391	69
5:00 PM	5:15 PM	39	7	16	29	6	10	38	632	18	17	406	54
5:15 PM	5:30 PM	45	3	11	21	5	22	37	686	11	17	392	58
5:30 PM	5:45 PM	49	1	17	9	0	21	31	743	13	14	418	78
5:45 PM	6:00 PM	26	42	40	44	2	40	24	539	8	5	243	54
PM Peak Hour Volumes		178	17	61	77	14	69	123	2677	60	72	1607	259
% of Total Traffic		3.4%	0.3%	1.2%	1.5%	0.3%	1.3%	2.4%	51.3%	1.2%	1.4%	30.8%	5.0%
% Directional			4.9%			3.1%			54.9%			37.2%	
PM Peak Hour Factor			0.94			0.83			0.91			0.95	

Traffic Count Data Sheet

Year Counts Taken:

2012

E-W Street Western Trail

N-S Street: Coors Blvd

Speed Limit (Western Trail)=

35 MPH

Speed Limit (Coors Blvd)=

45 MPH

Date of Count: 6/18/12

Begin Time	End Time	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd)			Southbound (Coors Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	47	1	53	9	1	3	13	280	6	2	463	8
7:15 AM	7:30 AM	52	0	65	10	2	6	15	295	1	1	503	7
7:30 AM	7:45 AM	29	4	45	22	1	4	18	352	6	3	571	12
7:45 AM	8:00 AM	27	2	48	17	3	9	17	303	2	3	448	12
8:00 AM	8:15 AM	34	0	54	43	2	6	43	274	4	3	436	43
8:15 AM	8:30 AM	27	4	39	45	0	9	40	269	3	3	469	43
8:30 AM	8:45 AM	37	2	39	49	2	9	44	302	5	3	395	47
8:45 AM	9:00 AM	27	2	34	49	4	2	47	309	11	2	384	44
AM Peak Hour Volumes		155	7	211	58	7	22	63	1230	15	9	1985	39
% of Total Traffic		4.1%	0.2%	5.6%	1.5%	0.2%	0.6%	1.7%	32.4%	0.4%	0.2%	52.2%	1.0%
% Directional		9.8%			2.3%			34.4%			53.5%		
AM Peak Hour Factor		0.80			0.75			0.87			0.87		

Begin Time	End Time	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd)			Southbound (Coors Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	28	3	42	8	4	4	54	485	4	4	448	28
4:15 PM	4:30 PM	25	4	47	6	4	4	59	527	8	4	426	46
4:30 PM	4:45 PM	34	4	22	40	4	4	59	558	14	2	433	32
4:45 PM	5:00 PM	16	0	15	6	5	4	62	551	9	4	442	32
5:00 PM	5:15 PM	25	1	10	6	0	7	55	647	7	5	415	40
5:15 PM	5:30 PM	37	1	17	4	1	4	59	607	8	11	442	49
5:30 PM	5:45 PM	24	0	24	5	3	5	64	682	15	6	434	44
5:45 PM	6:00 PM	33	4	25	4	4	2	55	537	12	45	392	37
PM Peak Hour Volumes		102	2	66	21	9	20	240	2487	39	26	1733	165
% of Total Traffic		2.1%	0.0%	1.3%	0.4%	0.2%	0.4%	4.9%	50.7%	0.8%	0.5%	35.3%	3.4%
% Directional		3.5%			1.0%			56.3%			39.2%		
PM Peak Hour Factor		0.77			0.83			0.91			0.96		

Traffic Count Data Sheet

Year Counts Taken: **2012** E-W Street Sevilla Rd Speed Limit (Sevilla Rd)= **30** MPH
 N-S Street: Coors Blvd Speed Limit (Coors Blvd)= **45** MPH
 Date of Count: **6/19/12**

Begin Time	End Time	Eastbound (Sevilla Rd)			Westbound (Sevilla Rd)			Northbound (Coors Blvd)			Southbound (Coors Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	6	0	40	0	0	42	4	324	0	4	427	2
7:15 AM	7:30 AM	6	0	7	0	0	11	1	379	0	2	544	1
7:30 AM	7:45 AM	8	0	7	2	0	10	1	407	5	0	585	1
7:45 AM	8:00 AM	3	0	4	2	0	10	1	379	1	6	475	1
8:00 AM	8:15 AM	4	1	5	4	0	5	3	336	0	1	471	2
8:15 AM	8:30 AM	4	0	6	2	0	9	4	346	2	3	485	2
8:30 AM	8:45 AM	4	0	6	0	0	7	4	369	2	4	437	4
8:45 AM	9:00 AM	4	0	5	2	0	8	5	356	0	2	427	2
AM Peak Hour Volumes		21	1	23	8	0	36	6	1501	6	9	2075	5
% of Total Traffic		0.6%	0.0%	0.6%	0.2%	0.0%	1.0%	0.2%	40.7%	0.2%	0.2%	56.2%	0.1%
% Directional		1.2%			1.2%			41.0%			56.6%		
AM Peak Hour Factor		0.75			0.92			0.92			0.89		

Begin Time	End Time	Eastbound (Sevilla Rd)			Westbound (Sevilla Rd)			Northbound (Coors Blvd)			Southbound (Coors Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	4	427	3	2	424	2	8	426	4	6	358	8
4:15 PM	4:30 PM	8	0	4	2	0	3	4	599	4	5	432	9
4:30 PM	4:45 PM	3	0	7	0	3	3	10	724	3	9	497	9
4:45 PM	5:00 PM	21	0	10	1	0	7	21	627	4	10	443	19
5:00 PM	5:15 PM	8	0	6	1	0	6	10	485	2	5	492	18
5:15 PM	5:30 PM	4	0	7	0	1	7	14	695	2	4	523	13
5:30 PM	5:45 PM	7	0	4	0	0	5	44	639	3	4	503	44
5:45 PM	6:00 PM	9	0	7	4	0	6	5	559	2	44	474	42
PM Peak Hour Volumes		36	0	30	2	4	23	55	2531	11	28	1955	59
% of Total Traffic		0.8%	0.0%	0.6%	0.0%	0.1%	0.5%	1.2%	53.5%	0.2%	0.6%	41.3%	1.2%
% Directional		1.4%			0.6%			54.9%			43.1%		
PM Peak Hour Factor		0.53			0.91			0.88			0.95		

Traffic Count Data Sheet

Year Counts Taken: 2012

E-W Street St Joseph's Dr
N-S Street: Atrisco DrSpeed Limit (St Joseph's Dr)= 30 MPH
Speed Limit (Atrisco Dr)= 35 MPH
Date of Count: 6/19/12

Begin Time	End Time	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Atrisco Dr)			Southbound (Atrisco Dr)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	7:45 AM	9	70	17	7	18	2	4	15	13	14	121	5
7:45 AM	8:00 AM	5	85	17	6	22	5	2	24	5	16	113	9
8:00 AM	8:15 AM	13	82	14	14	13	7	3	13	6	11	81	4
8:15 AM	8:30 AM	8	68	8	12	37	11	4	20	10	6	76	5
8:30 AM	8:45 AM	6	58	15	5	24	7	4	16	2	11	75	9
8:45 AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
AM Peak Hour Volumes		35	305	56	39	90	25	13	72	34	47	391	23
% of Total Traffic		3.1%	27.0%	5.0%	3.5%	8.0%	2.2%	1.2%	6.4%	3.0%	4.2%	34.6%	2.0%
% Directional			35.0%			13.6%			10.5%			40.8%	
AM Peak Hour Factor			0.91			0.64			0.88			0.82	

Begin Time	End Time	Eastbound (St Joseph's Dr)			Westbound (St Joseph's Dr)			Northbound (Atrisco Dr)			Southbound (Atrisco Dr)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	6	30	9	13	96	12	9	53	14	5	25	13
4:15 PM	4:30 PM	9	37	24	9	85	14	11	62	5	7	30	6
4:30 PM	4:45 PM	10	35	8	7	61	12	8	62	6	7	39	4
4:45 PM	5:00 PM	9	52	15	10	75	25	14	77	12	4	40	8
5:00 PM	5:15 PM	14	41	10	8	74	16	19	92	19	4	49	3
5:15 PM	5:30 PM	11	44	13	9	91	17	21	94	15	7	33	14
5:30 PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Hour Volumes		44	172	46	34	301	70	62	325	52	22	161	29
% of Total Traffic		3.3%	13.1%	3.5%	2.6%	22.8%	5.3%	4.7%	24.7%	3.9%	1.7%	12.2%	2.2%
% Directional			19.9%			30.7%			33.3%			16.1%	
PM Peak Hour Factor			0.86			0.87			0.84			0.95	

Traffic Count Data Sheet

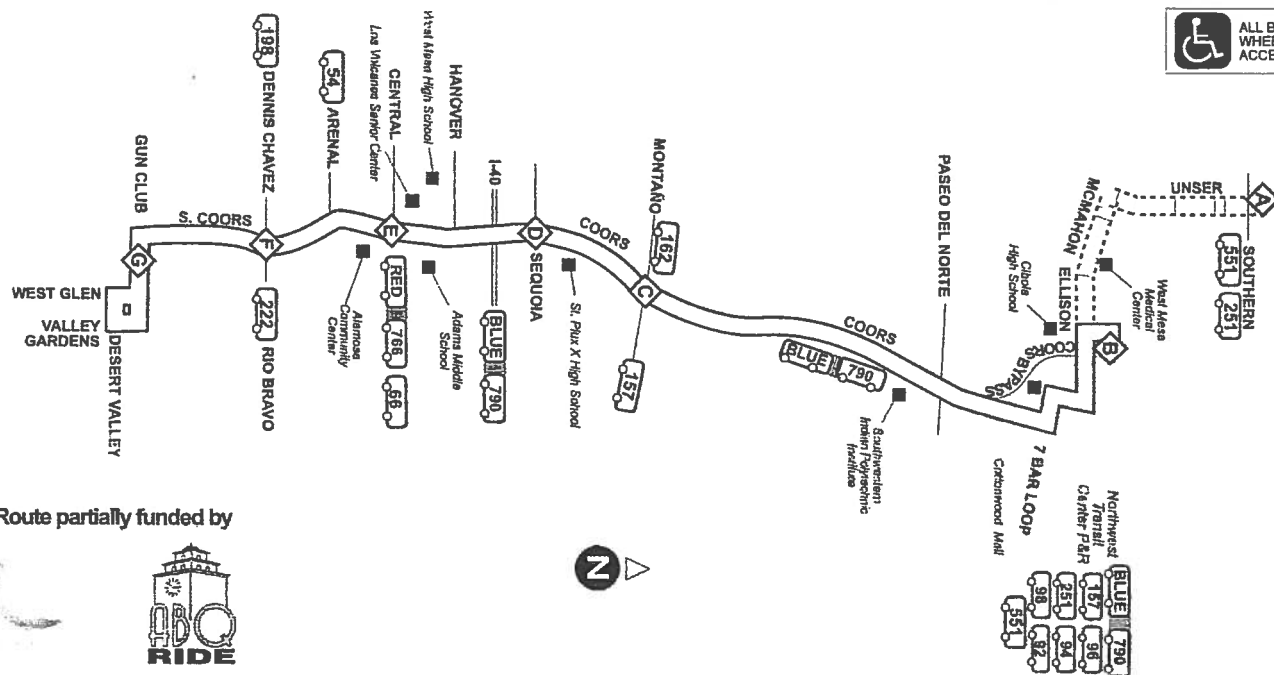
Year Counts Taken: 2012 E-W Street Western Trail Speed Limit (Western Trail)= 35 MPH
 N-S Street: Quaker Heights Speed Limit (Quaker Heights)= 30 MPH
 Date of Count: 6/20/12

Begin Time	End Time	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Quaker Heights)			Southbound (Quaker Heights)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	0	102	0	0	16	1	0	0	6	4	1	0
7:15 AM	7:30 AM	0	95	0	0	34	1	0	1	4	6	1	2
7:30 AM	7:45 AM	0	87	1	3	21	1	0	1	6	4	2	0
7:45 AM	8:00 AM	0	79	2	2	32	2	2	0	4	8	0	2
8:00 AM	8:15 AM	0	57	0	4	38	4	0	2	3	9	0	2
8:15 AM	8:30 AM	0	42	0	0	26	3	0	0	4	4	0	0
8:30 AM	8:45 AM	3	84	2	0	23	4	0	0	4	4	4	2
8:45 AM	9:00 AM	0	39	0	0	23	2	0	0	2	7	4	0
AM Peak Hour Volumes		0	363	3	5	103	5	2	2	20	22	4	4
% of Total Traffic		0.0%	68.1%	0.6%	0.9%	19.3%	0.9%	0.4%	0.4%	3.8%	4.1%	0.8%	0.8%
% Directional			68.7%			21.2%			4.5%			5.6%	
AM Peak Hour Factor			0.90			0.78			0.86			0.75	

Begin Time	End Time	Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Quaker Heights)			Southbound (Quaker Heights)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	39	4	3	74	2	4	4	2	4	0	0
4:15 PM	4:30 PM	4	42	0	2	77	8	3	0	3	2	0	0
4:30 PM	4:45 PM	0	33	4	3	82	4	4	0	7	2	4	0
4:45 PM	5:00 PM	0	50	0	5	95	5	2	0	4	4	0	1
5:00 PM	5:15 PM	1	33	0	1	80	1	5	0	3	3	1	0
5:15 PM	5:30 PM	0	40	0	5	89	4	1	0	2	2	1	0
5:30 PM	5:45 PM	1	48	0	2	83	7	2	2	1	2	0	0
5:45 PM	6:00 PM	4	45	0	8	70	3	4	0	0	4	0	4
PM Peak Hour Volumes		2	171	0	13	347	17	10	2	10	11	2	1
% of Total Traffic		0.3%	29.2%	0.0%	2.2%	59.2%	2.9%	1.7%	0.3%	1.7%	1.9%	0.3%	0.2%
% Directional			29.5%			64.3%			3.8%			2.4%	
PM Peak Hour Factor			0.87			0.90			0.69			0.70	

Route / Ruta 155 Coors Blvd.

Effective: January 2012



Route 155 - Weekday Southbound

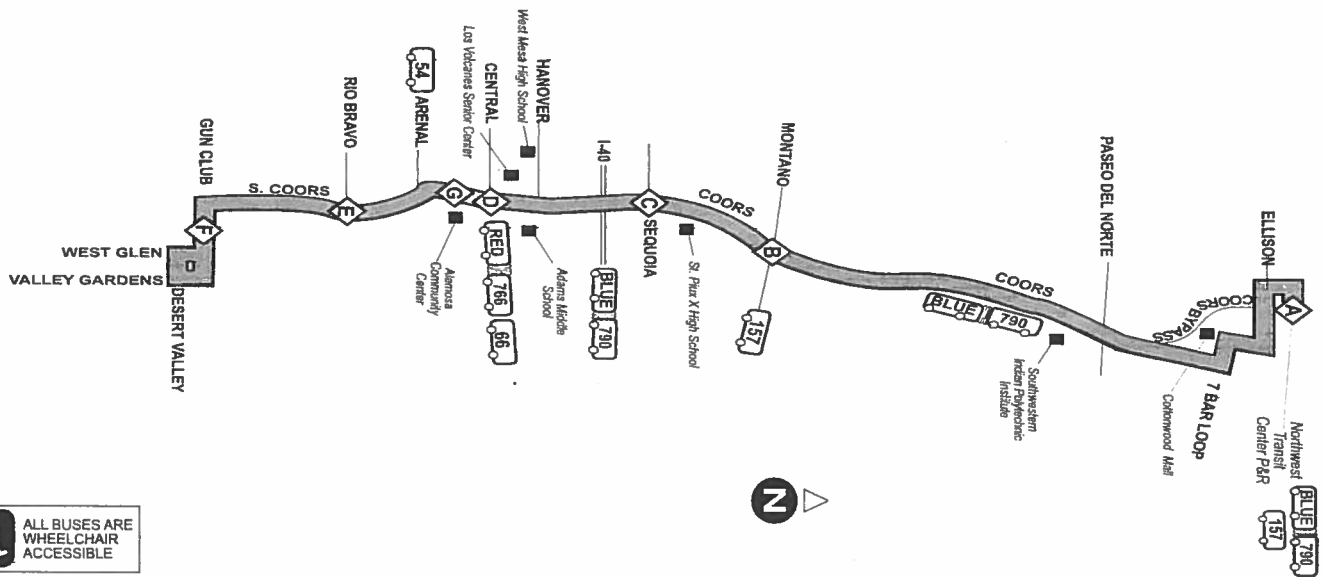
Route 155 - Weekday Northbound

UTAHN & UNSER	COORS & GUN CLUB	COORS & MONTAÑO	COORS & CENTRAL	COORS & ARENAL	COORS & DENNIS CHAVEZ	COORS & RIO BRAVO	COORS & GUN CLUB
A	B	C	D	E	F	G	
5:38a	5:53a	6:09a	6:14a	6:23a	6:34a	6:39a	
6:16a	6:31a	6:47a	6:52a	7:01a	7:12a	7:17a	
6:46a	7:01a	7:17a	7:22a	7:32a	7:43a	7:48a	
7:18a	7:33a	7:49a	7:54a	8:04a	8:15a	8:20a	
7:52a	8:07a	8:23a	8:28a	8:38a	8:49a	8:54a	
...	8:37a	8:53a	8:58a	9:08a	9:19a	9:24a	
...	9:07a	9:23a	9:28a	9:38a	9:49a	9:54a	
...	9:37a	9:53a	9:58a	10:08a	10:19a	10:24a	
...	10:07a	10:23a	10:28a	10:38a	10:49a	10:54a	
...	10:37a	10:53a	10:58a	11:08a	11:19a	11:24a	
...	11:07a	11:23a	11:28a	11:38a	11:49a	11:54a	
...	11:37a	11:53a	11:58a	12:08p	12:19p	12:24p	
...	12:07p	12:23p	12:28p	12:39p	12:50p	12:55p	
...	12:37p	12:53p	12:58p	1:09p	1:20p	1:25p	
...	1:07p	1:23p	1:28p	1:39p	1:50p	1:55p	
...	1:37p	1:53p	1:58p	2:09p	2:20p	2:25p	
...	2:08p	2:24p	2:29p	2:40p	2:51p	2:56p	
...	2:38p	2:54p	2:59p	3:10p	3:21p	3:27p	
...	3:08p	3:24p	3:29p	3:40p	3:53p	3:59p	
...	3:37p	3:55p	4:00p	4:11p	4:24p	4:30p	
...	4:06p	4:24p	4:29p	4:40p	4:53p	4:59p	
...	4:38p	4:56p	5:01p	5:12p	5:25p	5:31p	
4:53p	5:08p	5:26p	5:31p	5:42p	5:55p	6:01p	
5:22p	5:37p	5:55p	6:00p	6:11p	6:24p	6:30p	
5:55p	6:10p	6:28p	6:33p	6:42p	6:53p	6:59p	
...	6:40p	6:56p	7:01p	7:10p	7:21p	7:27p	
...	7:19p	7:35p	7:40p	7:49p	8:00p	8:06p	
...	8:03p	8:19p	8:24p	8:33p	8:44p	8:50p	
...	8:41p	8:57p	9:02p	9:11p	9:22p	9:28p	
...	9:39p	9:55p	10:00p	10:09p	10:20p	10:26p	

UTAHN & UNSER	COORS & GUN CLUB	COORS & MONTAÑO	COORS & CENTRAL	COORS & ARENAL	COORS & DENNIS CHAVEZ	COORS & RIO BRAVO	COORS & GUN CLUB
A	B	C	D	E	F	G	
7:36a	7:21a	7:06a	7:00a	6:52a	6:41a	6:33a	
...	7:52a	7:37a	7:31a	7:22a	7:10a	7:02a	
...	8:23a	8:08a	8:02a	7:53a	7:41a	7:33a	
...	8:56a	8:41a	8:35a	8:26a	8:14a	8:06a	
...	9:26a	9:11a	9:05a	8:56a	8:44a	8:36a	
...	9:56a	9:41a	9:35a	9:26a	9:14a	9:06a	
...	10:25a	10:10a	10:04a	9:55a	9:43a	9:35a	
...	10:54a	10:39a	10:33a	10:24a	10:12a	10:04a	
...	11:24a	11:09a	11:03a	10:54a	10:42a	10:34a	
...	11:54a	11:39a	11:33a	11:24a	11:12a	11:04a	
...	12:24p	12:09p	12:03p	11:54a	11:42a	11:34a	
...	12:54p	12:39p	12:33p	12:24p	12:12p	12:04p	
...	1:25p	1:10p	1:04p	1:25p	1:13p	1:05p	
...	1:55p	1:40p	1:34p	1:25p	1:13p	1:05p	
...	2:25p	2:10p	2:04p	1:55p	1:43p	1:35p	
...	2:56p	2:41p	2:35p	2:26p	2:14p	2:06p	
...	3:26p	3:11p	3:05p	2:56p	2:44p	2:36p	
...	3:59p	3:42p	3:36p	3:27p	3:15p	3:07p	
...	4:30p	4:13p	4:07p	3:58p	3:45p	3:37p	
...	5:00p	4:43p	4:37p	4:28p	4:15p	4:07p	
...	5:32p	5:15p	5:07p	4:58p	4:45p	4:37p	
...	6:03p	5:46p	5:38p	5:29p	5:16p	5:08p	
...	6:32p	6:16p	6:08p	5:59p	5:46p	5:38p	
...	6:58p	6:43p	6:37p	6:29p	6:16p	6:08p	
...	7:28p	7:13p	7:07p	6:59p	6:48p	6:40p	
...	7:55p	7:40p	7:34p	7:26p	7:15p	7:07p	
...	8:33p	8:18p	8:12p	8:04p	7:53p	7:45p	
...	9:03p	8:57p	8:57p	8:49p	8:38p	8:30p	
...	9:18p	9:04p	9:04p	8:58p	8:49p	8:39p	
...	10:19p	10:04p	10:04p	9:58p	9:50p	9:31p	

Route 155 / Ruta 155 Coors Blvd. Line

Effective 5/7/2011



Routes 155 - Saturday Southbound

A	B	C	D	E	F
6:57a	7:12a	7:17a	7:25a	7:34a	7:38a
7:42a	7:57a	8:02a	8:10a	8:19a	8:23a
8:27a	8:42a	8:47a	8:55a	9:04a	9:08a
9:11a	9:26a	9:31a	9:40a	9:49a	9:53a
9:56a	10:11a	10:16a	10:25a	10:35a	10:39a
10:42a	10:57a	11:03a	11:10a	11:21a	11:25a
11:27a	11:42a	11:48a	11:55a	12:06p	12:10p
12:11p	12:26p	12:32p	12:40p	12:50p	12:54p
12:56p	1:12p	1:17p	1:25p	1:35p	1:39p
1:41p	1:57p	2:02p	2:10p	2:20p	2:24p
2:24p	2:40p	2:45p	2:56p	3:06p	3:10p
3:09p	3:25p	3:30p	3:41p	3:51p	3:55p
3:54p	4:10p	4:15p	4:26p	4:36p	4:40p
4:39p	4:55p	5:00p	5:11p	5:21p	5:25p
5:24p	5:40p	5:45p	5:56p	6:05p	6:09p
6:13p	6:28p	6:32p	6:40p	6:48p	6:52p
6:58p	7:13p	7:17p	7:25p	7:33p	7:37p
7:43p	7:58p	8:02p	8:10p	8:18p	8:22p
8:28p	8:43p	8:47p	8:55p	9:03p	9:07p
9:28p	9:43p	9:47p	9:55p	10:03p	10:07p

Routes 155 - Saturday Northbound

F	E	D	C	B	A
7:44a	7:51a	8:00a	8:10a	8:16a	8:31a
8:39a	8:46a	8:55a	9:05a	9:11a	9:26a
9:24a	9:31a	9:40a	9:50a	9:56a	10:11a
10:09a	10:16a	10:25a	10:34a	10:40a	10:55a
10:53a	11:00a	11:10a	11:18a	11:24a	11:39a
11:37a	11:45a	11:55a	12:03p	12:09p	12:24p
12:24p	12:32p	12:40p	12:50p	12:57p	1:13p
1:09p	1:17p	1:25p	1:35p	1:42p	1:58p
1:54p	2:02p	2:10p	2:20p	2:27p	2:43p
2:39p	2:47p	2:55p	3:05p	3:12p	3:28p
3:24p	3:32p	3:40p	3:50p	3:57p	4:13p
4:07p	4:15p	4:25p	4:36p	4:41p	4:57p
4:52p	5:00p	5:10p	5:21p	5:26p	5:42p
5:37p	5:45p	5:55p	6:06p	6:11p	6:27p
6:24p	6:31p	6:40p	6:48p	6:53p	7:08p
7:09p	7:16p	7:25p	7:33p	7:38p	7:53p
7:54p	8:01p	8:10p	8:18p	8:23p	8:38p

Routes 155 - Sunday Southbound

A	C	D	E	H
1009a	1024a	1030a	1039a	1041a
1054a	1109a	1115a	1124a	1126a
1139a	1154a	1200p	1209p	1211p
1224p	1239p	1245p	1254p	1256p
109p	124p	130p	139p	141p
154p	209p	215p	224p	226p
239p	254p	300p	309p	311p
324p	339p	345p	354p	356p
409p	424p	430p	439p	441p

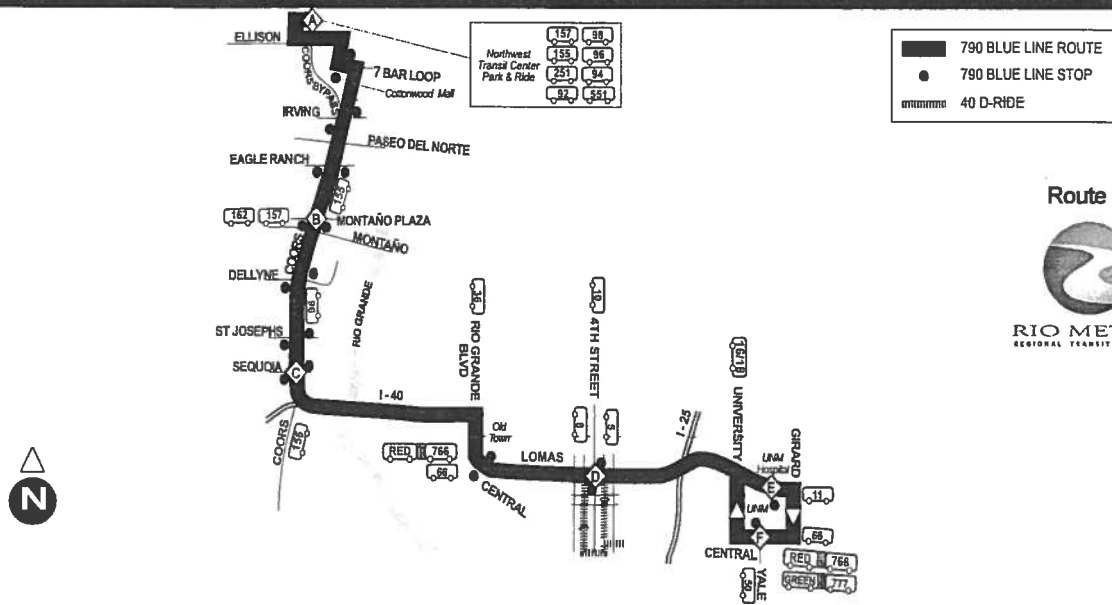
Routes 155 - Sunday Northbound

H	E	D	C	A
1000a	1002a	1011a	1018a	1033a
1045a	1047a	1056a	1103a	1118a
1130a	1132a	1141a	1148a	1203p
1215p	1217p	1226p	1233p	1248p
100p	102p	111p	118p	133p
145p	147p	156p	203p	218p
230p	232p	241p	248p	303p
315p	317p	326p	333p	348p
400p	402p	411p	418p	433p

NO SERVICE TO GUN CLUB OR RIO BRAVO ON SUNDAYS

Route/Ruta 790 Rapid Ride Blue Line

Effective: 5/19/2012



Route partially funded by



Route 790 - Weekday

NORTHWEST TRANSIT CENTER PARK	COORS & MONTANO	COORS & SEQUOIA	LOMAS & 4TH STREET	LOMAS @ UNM HOSPITAL	CENTRAL & YALE
A	B	C	D	E	F
5:19a	5:31a	5:37a	5:48a	5:55a	6:00a
5:54a	6:06a	6:12a	6:23a	6:30a	6:35a
6:18a	6:30a	6:36a	6:48a	6:55a	7:00a
6:34a	6:47a	6:53a	7:07a	7:15a	7:20a
6:49a	7:02a	7:09a	7:23a	7:31a	7:37a
7:04a	7:17a	7:24a	7:38a	7:46a	7:52a
7:23a	7:36a	7:43a	8:01a	8:09a	8:15a
7:50a	8:03a	8:10a	8:25a	8:32a	8:37a
8:09a	8:22a	8:29a	8:42a	8:49a	8:54a
8:29a	8:42a	8:48a	9:00a	9:08a	9:13a
8:45a	8:58a	9:05a	9:17a	9:25a	9:30a
9:05a	9:18a	9:25a	9:37a	9:45a	9:50a
9:26a	9:39a	9:46a	9:58a	10:06a	10:11a
9:46a	9:59a	10:06a	10:18a	10:26a	10:31a
10:03a	10:16a	10:23a	10:35a	10:43a	10:48a
10:22a	10:35a	10:41a	10:53a	11:01a	11:06a
10:42a	10:55a	11:01a	11:13a	11:21a	11:26a
11:01a	11:14a	11:20a	11:32a	11:40a	11:45a
11:20a	11:33a	11:40a	11:52a	12:00p	12:05p
11:40a	11:53a	12:00p	12:12p	12:20p	12:25p
12:00p	12:13p	12:20p	12:32p	12:40p	12:45p
12:20p	12:33p	12:40p	12:52p	1:00p	1:05p
12:38p	12:51p	12:58p	1:12p	1:20p	1:25p
12:58p	1:11p	1:18p	1:32p	1:40p	1:45p
1:18p	1:31p	1:38p	1:52p	2:00p	2:05p
1:40p	1:53p	2:00p	2:12p	2:20p	2:25p
2:00p	2:13p	2:20p	2:32p	2:40p	2:45p
2:18p	2:31p	2:38p	2:50p	2:58p	3:03p
2:38p	2:51p	2:58p	3:10p	3:18p	3:23p
2:58p	3:11p	3:18p	3:30p	3:38p	3:43p
3:20p	3:33p	3:40p	3:52p	4:00p	4:05p
3:41p	3:55p	4:02p	4:15p	4:23p	4:28p
4:01p	4:15p	4:22p	4:35p	4:43p	4:48p
4:20p	4:34p	4:41p	4:55p	5:03p	5:08p
4:40p	4:54p	5:01p	5:15p	5:23p	5:28p
5:01p	5:15p	5:22p	5:36p	5:44p	5:49p
5:25p	5:38p	5:45p	5:57p	6:04p	6:09p
5:49p	6:02p	6:09p	6:21p	6:27p	6:32p
6:22p	6:35p	6:42p	6:54p	7:00p	7:05p
6:57p	7:10p	7:17p	7:29p	7:35p	7:40p
7:20p	7:33p	7:40p	7:52p	7:58p	8:03p
7:53p	8:06p	8:12p	8:24p	8:30p	8:35p
8:28p	8:41p	8:47p	8:59p	9:05p	9:10p

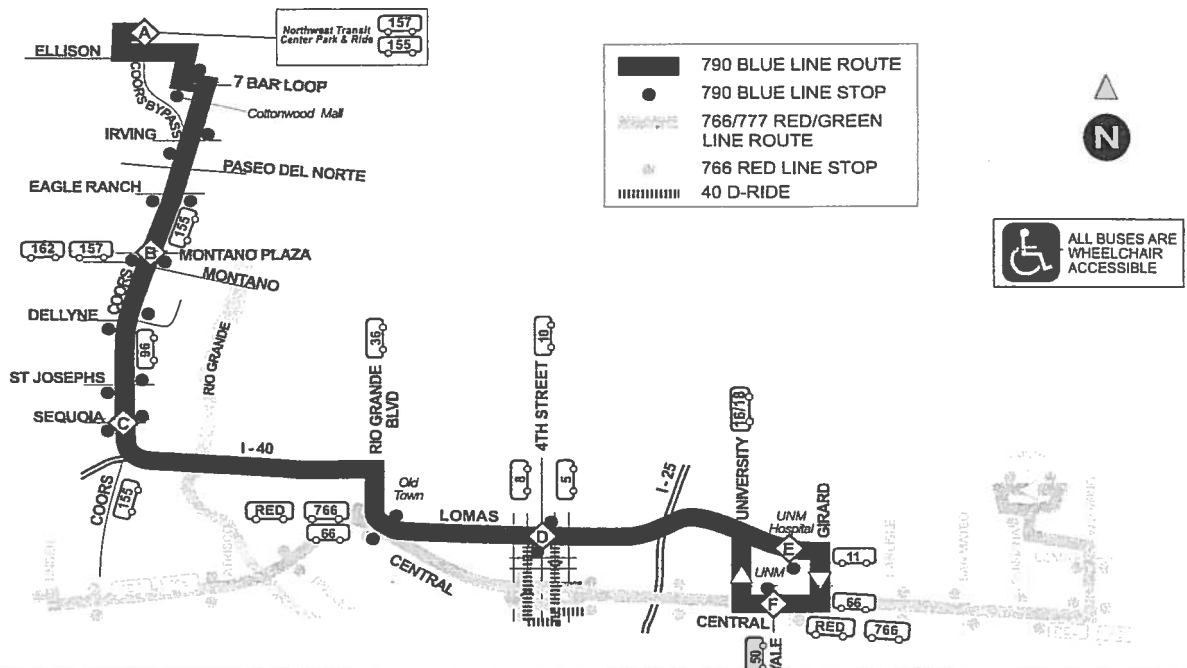
CENTRAL & YALE	LOMAS & 4TH STREET	COORS & SEQUOIA	COORS & MONTANO	NORTHWEST TRANSIT CENTER PARK
F	D	C	B	A
6:02a	6:08a	6:18a	6:25a	6:39a
6:37a	6:43a	6:53a	7:00a	7:14a
7:02a	7:08a	7:19a	7:26a	7:40a
7:22a	7:28a	7:39a	7:46a	8:00a
7:39a	7:46a	7:57a	8:03a	8:17a
7:54a	8:01a	8:12a	8:18a	8:32a
8:17a	8:24a	8:35a	8:41a	8:55a
8:39a	8:46a	8:57a	9:03a	9:17a
8:56a	9:03a	9:14a	9:20a	9:34a
9:15a	9:22a	9:33a	9:39a	9:53a
9:32a	9:39a	9:50a	9:56a	10:10a
9:52a	9:59a	10:10a	10:16a	10:30a
10:13a	10:20a	10:31a	10:37a	10:51a
10:33a	10:40a	10:51a	10:57a	11:11a
10:50a	10:57a	11:08a	11:14a	11:28a
11:08a	11:15a	11:26a	11:32a	11:46a
11:28a	11:35a	11:46a	11:52a	12:06p
11:47a	11:54a	12:05p	12:11p	12:25p
12:07p	12:14p	12:26p	12:32p	12:47p
12:27p	12:34p	12:46p	12:52p	1:07p
12:47p	12:54p	1:06p	1:12p	1:27p
1:07p	1:14p	1:26p	1:32p	1:47p
1:27p	1:34p	1:46p	1:52p	2:07p
1:47p	1:54p	2:06p	2:12p	2:27p
2:07p	2:14p	2:26p	2:32p	2:48p
2:27p	2:34p	2:46p	2:52p	3:08p
2:47p	2:54p	3:08p	3:15p	3:31p
3:06p	3:12p	3:27p	3:34p	3:51p
3:25p	3:32p	3:47p	3:54p	4:11p
3:45p	3:52p	4:06p	4:13p	4:30p
4:07p	4:14p	4:28p	4:35p	4:52p
4:30p	4:37p	4:51p	4:58p	5:15p
4:50p	4:57p	5:13p	5:20p	5:38p
5:10p	5:17p	5:33p	5:40p	5:58p
5:30p	5:37p	5:53p	6:00p	6:18p
5:51p	5:58p	6:11p	6:18p	6:34p
6:11p	6:17p	6:30p	6:36p	6:52p
6:33p	6:39p	6:50p	6:56p	7:10p
7:06p	7:12p	7:23p	7:29p	7:43p
7:41p	7:47p	7:58p	8:04p	8:18p
8:04p	8:10p	8:20p	8:26p	8:39p
8:36p	8:42p	8:52p	8:58p	9:11p
9:11p	9:17p	9:27p	9:33p	9:46p

EASTBOUND

WESTBOUND

Route/Ruta 790 Blue Line Rapid Ride

Effective 5/7/2011



Route 790 - Saturday

EASTBOUND

NORTHWEST TRANSIT CENTER P&R	COORS & MONTANO	COORS & SEQUOIA	LOMAS & 4TH STREET	LOMAS @ UNM HOSPITAL	YALE & CENTRAL
A	B	C	D	E	F
6:53a	7:08a	7:13a	7:23a	7:29a	7:34a
7:39a	7:54a	7:59a	8:09a	8:15a	8:20a
8:25a	8:40a	8:45a	8:55a	9:01a	9:06a
9:11a	9:26a	9:31a	9:41a	9:47a	9:52a
9:57a	10:12a	10:17a	10:27a	10:33a	10:38a
10:43a	10:58a	11:03a	11:13a	11:19a	11:24a
11:29a	11:44a	11:49a	11:59a	12:05p	12:10p
12:15p	12:30p	12:35p	12:45p	12:51p	12:56p
1:01p	1:16p	1:21p	1:31p	1:37p	1:42p
1:47p	2:02p	2:07p	2:17p	2:23p	2:28p
2:33p	2:48p	2:53p	3:03p	3:09p	3:14p
3:19p	3:34p	3:39p	3:49p	3:55p	4:00p
4:05p	4:20p	4:25p	4:35p	4:41p	4:46p
4:51p	5:06p	5:11p	5:21p	5:27p	5:32p
5:37p	5:52p	5:57p	6:07p	6:13p	6:18p
6:23p	6:38p	6:43p	6:53p	6:59p	7:04p
7:09p	7:24p	7:29p	7:39p	7:45p	7:50p

CENTRAL & YALE	LOMAS & 4TH STREET	COORS & SEQUOIA	COORS & MONTANO	NORTHWEST TRANSIT CENTER P&R
F	D	C	B	A
7:36a	7:42a	7:55a	8:00a	8:15a
8:22a	8:28a	8:41a	8:46a	9:01a
9:08a	9:14a	9:27a	9:32a	9:47a
9:54a	10:00a	10:13a	10:18a	10:33a
10:40a	10:46a	10:59a	11:04a	11:19a
11:26a	11:32a	11:45a	11:50a	12:05p
12:12p	12:18p	12:31p	12:36p	12:51p
12:58p	1:04p	1:17p	1:22p	1:37p
1:44p	1:50p	2:03p	2:08p	2:23p
2:30p	2:36p	2:49p	2:54p	3:09p
3:16p	3:22p	3:35p	3:40p	3:55p
4:02p	4:08p	4:21p	4:26p	4:41p
4:48p	4:54p	5:07p	5:12p	5:27p
5:34p	5:40p	5:53p	5:58p	6:13p
6:20p	6:26p	6:39p	6:44p	6:59p
7:06p	7:12p	7:25p	7:30p	7:45p
7:52p	7:58p	8:11p	8:16p	8:31p

WESTBOUND