01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 60

DEFAULT PARAMETERS

Default values for some of the important general parameters:
(Default Values File: DEF30.SDF)

1. Basic saturation flow: 1950 tcu/h

   This value applies mainly to signalised intersections. For roundabouts and sign-controlled intersections, it is used for determining capacity of priority and continuous movements.

2. Through car equivalents for signalised intersections

	LEFT		THROUGH		RIGHT	
	LV	HV	LV	HV	LV	HV
Normal	1.050	1.800	1.000	1.650	1.050	1.800
Restricted	1.250	2.250			1.250	2.250

3. Opposed turn parameters (Signalised intersection)

	Crit. Gap	Fol.up Hdway	Deps at End	% Exit Flow Opposing
Left turns :	4.5	2.6	2.2	0
Right turns:	4.0	2.4	2.5	0

4. Cruise speed= 60 km/h, Approach Distance= 500 m

5. Queue space per vehicle in metres
   Light vehicles: 7.0 Heavy vehicles: 13.0

A full list of input data defaults and ranges is given in the Input Guide part of aaSIDRA User Guide.

---

01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 60

Table S.0 - TRAFFIC FLOW DATA

Mov No.	Left LV	Left HV	Through LV	Through HV	Right LV	Right HV	Flow Scale	Peak Flow Factor
VEHICLES	Demand flows in veh/hour as used by the program							
South: PR-185 S								
1	0	0	729	0	0	0	1.00	1.00
3	0	0	0	0	32	0	1.00	1.00

East: PR-957 E								
4	84	0	0	0	0	0	1.00	1.00
6	0	0	0	0	1000	0	1.00	1.00
North: PR-185 N								
7	325	0	0	0	0	0	1.00	1.00
8	0	0	594	0	0	0	1.00	1.00

Based on unit time = 60 minutes.
Flow Scale and Peak Hour Factor effects included in flow values.

---

01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 60

Table S.1 - MOVEMENT PHASE AND TIMING PARAMETERS

Mov No.	Mov Typ	PHASE MATRIX First Green Fr	To	Op	Pr	Second Green Fr	To	Op	Pr	Lost Tim 1st Grn	Lost Tim 2nd Grn	Req.Mov.Time 1st Grn	Req.Mov.Time 2nd Grn	Eff. Grn 1st Grn	Eff. Grn 2nd Grn
South: PR-185 S															
1 T		*A	B							4		29.7		22	
3 R	(Un1)	E	A	R		A	E			8	4	10.0Min	59.1	3	45
East: PR-957 E															
4 L			B	E						4		25.1		19	
6 R	(Un1)	E	B	R		*B	E			23	4	33.3	29.4	14	19
North: PR-185 N															
7 L		*E	A			A	B	L		4	23	10.0Min	27.0	7	3
8 T		E	B							4		24.3		33	

Current Phase Sequence No.: 3
Input phase sequence: E A B
Output phase sequence: E A B

* Critical Movement/Green Period

Movement Types:
- Ped Pedestrian
- Dum Dummy
- Und Undetected in both green periods
- Un1 Undetected in 1st green period
- Un2 Undetected in 2nd green period

Under heading 'Op':
- L "Left" turns are opposed
- R "Right" turns are opposed
- LR "Left and Right" opposed
- C "Constant" saturation flow

---

01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 60

Table S.3 - INTERSECTION PARAMETERS

Critical Movements: 7(1st), 1, 6(2nd)

L= 18 Y= 0.766 U= 0.852 T= 69.1

Cycle Time:

Minimum	Maximum	Practical	Chosen
31	150	121	60

(Variable cycle times: Program-determined)

Intersection Level of Service	=	D
Worst movement Level of Service	=	E
Average intersection delay (s)	=	40.0
Largest average movement delay (s)	=	61.4
Largest cycle-average queue, mean (m)	=	80
Performance Index	=	102.43
Degree of saturation (highest)	=	1.051
Practical Spare Capacity (lowest)	=	-14 %
Effective intersection capacity, (veh/h)	=	2629
Total vehicle flow (veh/h)	=	2764
Total person flow (pers/h)	=	4146
Total vehicle delay (veh-h/h)	=	30.69
Total person delay (pers-h/h)	=	46.04
Total effective vehicle stops (veh/h)	=	2960
Total effective person stops (pers/h)	=	4440
Total vehicle travel (veh-km/h)	=	1672.8
Total cost ($/h)	=	1738.35
Total fuel (L/h)	=	226.6
Total CO2 (kg/h)	=	566.58

---

01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 60

Table S.4 - PHASE INFORMATION

Phase Change Times: 0, 11, 37
Phase Green Times: 7, 22, 19

Current Phase Sequence No.: 3
Input phase sequence: E A B
Output phase sequence: E A B

---

01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 60

Table S.5 - MOVEMENT PERFORMANCE

Mov No.		Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Cycle (vehs)	Queue Aver. (m)	Perf. Index	Aver. Speed (km/h)
South: PR-185 S										
1	T	10.77	16.16	53.2	1.00	1.23	11.2	79	33.90	24.4
3	R	0.55	0.82	61.4	1.00	1.23	11.2	79	1.56	22.3
East: PR-957 E										
4	L	1.41	2.12	60.6	1.00	1.38	11.5	80	4.12	22.4
6	R	13.10	19.64	47.1	0.89	1.20	11.5	80	40.67	26.1
North: PR-185 N										
7	L	3.30	4.95	36.6	1.00	1.04	2.6	18	11.01	29.9
8	T	1.56	2.34	9.5	0.69	0.62	1.6	11	11.16	47.6

01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 60

Table S.6 - INTERSECTION PERFORMANCE

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (m)	Perf. Index	Aver. Speed (km/h)
Pedestrians:									
919	0.932	4.86	7.30	19.1	0.80	0.77	18	22.18	39.4
ALL VEHICLES:									
2764	1.051	30.69	46.04	40.0	0.89	1.07	80	102.43	28.6
INTERSECTION (persons):									
4146	1.051		46.04	40.0	0.89	1.07		102.43	28.6

Queue values in this table are mean cycle-average queue (metres).

01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 60

Table S.14 - SUMMARY OF INPUT AND OUTPUT DATA

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (m)	Shrt Lane (m)
South: PR-185 S												
1 TR	729	32		761	0	1950	1	23	1.052	53.5	79	

	0	729	32	761	0				1.052	53.5	79	
East: PR-957 E												
1 LR	84		708	792	0	1950	11	19	0.997	60.4	80	
2 R			292	292	0	1950	14	19	0.997	15.1r	4	20
	84	0	1000	1084	0				0.997	48.2	80	
North: PR-185 N												
1 L	325			325	0	1949	7	3	0.932	36.6	18	
2 T		594		594	0	1949	33		0.554	9.5	11	
	325	594	0	919	0				0.932	19.1	18	

ALL VEHICLES	Total Flow	% HV	Cycle Time	Max X	Aver. Delay	Max Queue
	2764	0	60	1.051	40.0	80

Total flow period = 60 minutes. Peak flow period = 15 minutes.

Queue values in this table are mean cycle-average queue (metres).

Note: Basic Saturation Flows (in through car units) have been adjusted for grade, lane widths, parking manoeuvres and bus stops.

r Delay, stops and queue length for this lane have been cut down to fit in the queuing space. The amount cut may not be accounted for fully in the adjacent lane performance statistics. You may wish to change the short lane to a full lane to investigate the extent of this effect.

---

01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 60

Table S.15 - CAPACITY AND LEVEL OF SERVICE

Mov No.	Mov Typ	Green Time Ratio (g/C) 1st grn	2nd grn	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue Cycle (vehs)	Aver. (m)
South: PR-185 S										
1 T		0.367*		729	693	1.051*	53.2	D	11.2	79
3 R	(Unl)	0.050	0.750	32	31	1.041	61.4	E	11.2	79
				761		1.051	53.5	D	11.2	79
East: PR-957 E										
4 L		0.317		84	84	0.997	60.6	E	11.5	80
6 R	(Unl)	0.233	0.317*	1000	1003<	0.997	47.1	D	11.5	80
				1084		0.997	48.2	D	11.5	80

North: PR-185 N								
7 L	0.117*	0.050	325	349	0.932	36.6	D	2.6	18
8 T	0.550		594	1073	0.554	9.5	A	1.6	11
			919		0.932	19.1	B	2.6	18
ALL VEHICLES:			2764		1.051	40.0	D	11.5	80
INTERSECTION (persons):			4146			40.0		11.5	80

Level of Service calculations are based on
average control delay including geometric delay (HCM criteria),
independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the
aaSIDRA Output Guide or the Output section of the on-line help.
< Reduced capacity due to a short lane effect
* Maximum v/c ratio, or critical green periods

01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1

Table S.21 - VARIABLE CYCLE TIME RESULTS

Performance Measure	Smallest Value	Cycle Time
Degree of Satn	1.051	60
Average Delay	40.0	60
Stop Rate	0.99	150
Max. Queue for Any Movement	11.5	60
Perf. Index	102.4	60
Cost	1738.4	60

Performance Measure	Largest Value	Cycle Time
Eff. Inters. Cap.	2629	60
Prac. Spare Cap.	-14	60

If an "optimum" cycle time solution is adopted for actuated signal purposes
ensure that vehicle-actuated settings reflect this solution in real life.
Consider using the "sensitivity analysis" facility to optimise maximum
green settings for actuated signals.

01 Int PR-185 y PR-957
Pico AM Futuro + Semaforo
Intersection ID: 1

Table V.21 - INTERSECTION SUMMARY FOR VARIABLE CYCLE TIME

Cycle Time (sec)	Eff. Int. Cap.	Intersn Deg. of Satn	Prac. Spare Cap.	Aver. Delay (sec)	Stop Rate	Longest Queue (veh)	Perf. Index	Cost Total $/h	Unsett
60	2629	1.051	-14	40.0	1.07	11.5	102.4	1738.4	
70	2551	1.084	-17	44.8	1.07	13.7	109.9	1836.7	
80	2589	1.067	-16	47.2	1.07	13.1	113.6	1885.7	
90	2503	1.104	-18	52.1	1.08	13.6	121.1	1984.0	*
100	2569	1.076	-16	53.7	1.07	15.9	123.6	2017.6	*
110	2479	1.115	-19	57.8	1.07	15.3	129.9	2100.4	*
120	2551	1.083	-17	52.5	1.01	14.6	120.7	1988.4	*
130	2543	1.087	-17	61.8	1.07	18.1	135.9	2181.3	
140	2591	1.067	-16	55.2	1.00	13.7	124.8	2043.7	
150	2559	1.080	-17	57.0	0.99	14.5	127.5	2079.8	*

* UNSETTLED RESULTS - Solution for this case has some uncertainty.
Refer to the HELP system or the User Guide for further information.

--- End of aaSIDRA Output ---

C:\Documents and Settings\Carlos M Contreras\My Documents\aaTraffic\aaSIDRA Projects\CampoRicoNewCastle\01_PR-185 y PR-957_FASem.OUT
Produced by aaSIDRA 2.1.3.356
Copyright 2000-2004
Akcelik & Associates Pty Ltd

Generated 3:14 PM, 11 Jan 2006

Akcelik & Associates Pty Ltd - aaSIDRA 2.1.3.356

Traffic Consulting Group
Carlos M. Contreras
Licence Type: Multi Computer

User ID: M0276

Time and Date of Analysis 1:07 PM, 26 Jan 2006

Filename: C:\Documents and Settings\Carlos M Contreras\My Documents\aaTraffic\aaSIDRA Projects\CampoRicoNewCastle\01_PR-185 y PR-957_FP.OUT

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1

RUN INFORMATION

* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in Metric units
  Default Values File No. 30
  Peak flow period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes (Hourly Rate)
  Delay definition: Control delay
  Geometric delay included
  aaSIDRA Standard Delay and Queue models used
  Level of Service based on: Delay (HCM method)
  Queue definition: Cycle average queue, Average

---

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1
Stop Sign Controlled Intersection

Table S.0 - TRAFFIC FLOW DATA

Mov No.	Left LV	Left HV	Through LV	Through HV	Right LV	Right HV	Flow Scale	Peak Flow Factor
VEHICLES Demand flows in veh/hour as used by the program								
South: PR-185 S								
1	0	0	673	0	0	0	1.00	1.00
3	0	0	0	0	46	0	1.00	1.00
East: PR-957								
4	9	0	0	0	0	0	1.00	1.00
6	0	0	0	0	766	0	1.00	1.00
North: PR-185								

7	1294	0	1082	0	0	0	1.00	1.00

Based on unit time = 60 minutes.
Flow Scale and Peak Hour Factor effects included in flow values.

---

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1
Stop Sign Controlled Intersection

Table S.2 - MOVEMENT CAPACITY PARAMETERS

Mov No.	Demand Flow (veh/h)	HV (%)	Opposing Flow (veh/h)	HV (%)	Movement Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
South: PR-185 S										
1 T	673	0.0	0			1819	0.80	116	100	0.370
3 R	46	0.0	0			124	0.80	116	100	0.371
East: PR-957										
4 L	9	0.0	3072+	0.0	3072	4	0.80	-64	100	2.250
6 R	766	0.0	696+	0.0	696	339	0.80	-65	100	2.260
North: PR-185										
7 LT	2376	0.0	719	0.0	719	858	0.80	-71	100	2.769*

+ Percentage of exiting flow included in total opposing flow

---

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1
Stop Sign Controlled Intersection

Table S.3 - INTERSECTION PARAMETERS

Intersection Level of Service	=	NA
Worst movement Level of Service	=	F
Average intersection delay (s)	=	655.4
Largest average movement delay (s)	=	805.4
Largest cycle-average queue, mean (m)	=	3700
Performance Index	=	1534.64
Degree of saturation (highest)	=	2.769
Practical Spare Capacity (lowest)	=	-71 %
Effective intersection capacity, (veh/h)	=	1398
Total vehicle flow (veh/h)	=	3870
Total person flow (pers/h)	=	5805
Total vehicle delay (veh-h/h)	=	704.59
Total person delay (pers-h/h)	=	1056.89
Total effective vehicle stops (veh/h)	=	16546
Total effective person stops (pers/h)	=	24819
Total vehicle travel (veh-km/h)	=	2337.6

Total cost ($/h)	=	19860.18
Total fuel (L/h)	=	1252.8
Total CO2 (kg/h)	=	3132.10

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

---

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1
Stop Sign Controlled Intersection

Table S.5 - MOVEMENT PERFORMANCE

Mov No.	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Cycle (vehs)	Queue Aver. (m)	Perf. Index	Aver. Speed (km/h)
South: PR-185 S									
1 T	0.00	0.00	0.0	0.00	0.00	0.0	0	6.80	60.0
3 R	0.10	0.16	8.2	0.00	0.67	0.0	0	0.74	49.0
East: PR-957									
4 L	2.01	3.01	803.0	1.00	5.01	170.6	1194	4.33	2.6
6 R	170.90	256.35	803.2	1.00	7.44	170.6	1194	378.89	2.6
North: PR-185									
7 LT	531.58	797.37	805.4	1.00	4.53	528.5	3700	1143.87	2.6

---

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1
Stop Sign Controlled Intersection

Table S.6 - INTERSECTION PERFORMANCE

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (m)	Perf. Index	Aver. Speed (km/h)
South: PR-185 S									
719	0.371	0.10	0.16	0.5	0.00	0.04	0	7.54	59.1
East: PR-957									
775	2.260	172.91	259.36	803.2	1.00	7.41	1194	383.22	2.6
North: PR-185									
2376	2.769	531.58	797.37	805.4	1.00	4.53	3700	1143.87	2.6
ALL VEHICLES:									
3870	2.769	704.59	1056.89	655.4	0.81	4.28	3700	1534.64	3.1

INTERSECTION (persons):							
5805	2.769	1056.89	655.4	0.81	4.28	1534.64	3.1

Queue values in this table are mean cycle-average queue (metres).

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1
Stop Sign Controlled Intersection

Table S.7 - LANE PERFORMANCE

Lane No.	Mov No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue Cycle (vehs)	Queue Aver. (m)	Short Lane (m)
South: PR-185 S									
1 TR	1, 3	719	1944	0.370	0.5	0.04	0.0	0	
East: PR-957									
1 LR	4, 6	775	343	2.260	803.2	7.41	170.6	1194	
North: PR-185									
1 LT	7	2376	858	2.770	805.4	4.53	528.5	3700	

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1
Stop Sign Controlled Intersection

Table S.8A - LANE FLOW AND CAPACITY INFORMATION

Lane No.	Mov No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
South: PR-185 S									
1 TR	1, 3	0	673	46	719	719	1944	0.370	100
East: PR-957									
1 LR	4, 6	9	0	766	775	120	343	2.260	100
North: PR-185									
1 LT	7	1294	1082	0	2376	210	858	2.770	100

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

---

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1
Stop Sign Controlled Intersection

Table S.12A - FUEL CONSUMPTION, EMISSIONS AND COST - TOTAL

Mov No.	Fuel Total L/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
South: PR-185 S						
1 T	29.0	204.48	0.100	2.10	0.132	72.6
3 R	3.1	17.93	0.013	0.63	0.018	7.6
	32.1	222.41	0.113	2.72	0.150	80.2
East: PR-957						
4 L	3.4	55.53	0.019	0.27	0.009	8.4
6 R	302.1	4776.13	1.702	30.19	0.859	755.4
	305.5	4831.66	1.721	30.46	0.867	763.8
North: PR-185						
7 LT	915.2	14806.11	5.161	81.51	2.438	2288.1
	915.2	14806.11	5.161	81.51	2.438	2288.1
INTERSECTION:	1252.8	19860.18	6.995	114.70	3.455	3132.1

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/L)	=	0.900
Fuel resource cost factor	=	0.50
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	27.00
Time value factor	=	0.60
Average occupancy (persons/veh)	=	1.5
Light vehicle mass (1000 kg)	=	1.4
Heavy vehicle mass (1000 kg)	=	11.0
Light vehicle idle fuel rate (L/h)	=	1.350
Heavy vehicle idle fuel rate (L/h)	=	2.000

The idle fuel and vehicle mass parameters given above are the default values (data given in RIDES may override some of these parameters).

---

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1
Stop Sign Controlled Intersection

Table S.14 - SUMMARY OF INPUT AND OUTPUT DATA

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (m)	Shrt Lane (m)
South: PR-185 S												
1 TR		673	46	719	0				0.370	0.5	0	
	0	673	46	719	0				0.370	0.5		
East: PR-957												
1 LR	9		766	775	0				2.260	803.2	1194	
	9	0	766	775	0				2.260	803.2	1194	
North: PR-185												
1 LT	1294	1082		2376	0				2.770	805.4	3700	
	1294	1082	0	2376	0				2.770	805.4	3700	

ALL VEHICLES	Total Flow	% HV	Max X	Aver. Delay	Max Queue
	3870	0	2.769	655.4	3700

Total flow period = 60 minutes. Peak flow period = 15 minutes.

Queue values in this table are mean cycle-average queue (metres).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

---

01 Int PR-185 y PR-957
Pico PM Futuro
Intersection ID: 1
Stop Sign Controlled Intersection

Table S.15 - CAPACITY AND LEVEL OF SERVICE

Mov No.	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue Cycle (vehs)	Aver. (m)
South: PR-185 S								
1	T	673	1819	0.370	0.0	A	0.0	0
3	R	46	124	0.371	8.2	A	0.0	0
		719		0.371	0.5	A	0.0	0

East: PR-957							
4 L	9	4	2.250	803.0	F	170.6	1194
6 R	766	339	2.260	803.2	F	170.6	1194
	775		2.260	803.2	F	170.6	1194
North: PR-185							
7 LT	2376	858	2.769*	805.4	F	528.5	3700
	2376		2.769	805.4	F	528.5	3700
ALL VEHICLES:	3870		2.769	655.4	NA	528.5	3700

Level of Service calculations are based on
average control delay including geometric delay (HCM criteria),
independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the
aaSIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at
two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

--- End of aaSIDRA Output ---

C:\Documents and Settings\Carlos M Contreras\My Documents\aaTraffic\aaSIDRA Projects\CampoRicoNewCastle\01_PR-185 y PR-957_FP.OUT
Produced by aaSIDRA 2.1.3.356
Copyright 2000-2004
Akcelik & Associates Pty Ltd

Generated 1:07 PM, 26 Jan 2006

Akcelik & Associates Pty Ltd - aaSIDRA 2.1.3.356

Traffic Consulting Group
Carlos M. Contreras User ID: M0276
Licence Type: Multi Computer

Time and Date of Analysis 3:03 PM, 11 Jan 2006

Filename: C:\Documents and Settings\Carlos M Contreras\My Documents\aaTraffic\aaSIDRA Projects\CampoRicoNewCastle\01_PR-185 y PR-957_FPSem.OUT

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1

RUN INFORMATION

Variable cycle time run: "Optimum" cycle time = 130 s

* Basic Parameters:
  Intersection Type: Signalised - Fixed Time
  Driving on the right-hand side of the road
  Input data specified in Metric units
  Default Values File No. 30
  Peak flow period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes (Hourly Rate)
  Specified performance measure for "best" cycle time in variable run - Delay
  Delay definition: Control delay
  Geometric delay included
  aaSIDRA Standard Delay and Queue models used
  Level of Service based on: Delay (HCM method)
  Queue definition: Cycle average queue, Average

* No. of Main (Timing-Capacity) Iterations = 4
  Comparison of last two iterations:
    Difference in intersection degree of satn = 0.0 %
    Largest difference in eff. green times = 1 secs
    (max. value for stopping = 2 secs)
  Information on Previous Iteration:
    Cycle Time = 130
    Phase Times: 0, 75, 119
    Critical Movements: 7(1st), 1, 6(2nd)

* If an "optimum" cycle time solution is adopted for actuated signal purposes ensure that vehicle-actuated settings reflect this solution in real life. Consider using the "sensitivity analysis" facility to optimise maximum green settings for actuated signals.

---

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1

Fixed-Time Signals, Cycle Time = 130

DEFAULT PARAMETERS

Default values for some of the important general parameters:
(Default Values File: DEF30.SDF)

1. Basic saturation flow: 1950 tcu/h

   This value applies mainly to signalised intersections. For roundabouts and sign-controlled intersections, it is used for determining capacity of priority and continuous movements.

2. Through car equivalents for signalised intersections

	LEFT		THROUGH		RIGHT	
	LV	HV	LV	HV	LV	HV
Normal	1.050	1.800	1.000	1.650	1.050	1.800
Restricted	1.250	2.250			1.250	2.250

3. Opposed turn parameters (Signalised intersection)

	Crit. Gap	Fol.up Hdway	Deps at End	% Exit Flow Opposing
Left turns :	4.5	2.6	2.2	0
Right turns:	4.0	2.4	2.5	0

4. Cruise speed= 60 km/h, Approach Distance= 500 m

5. Queue space per vehicle in metres
   Light vehicles: 7.0 Heavy vehicles: 13.0

A full list of input data defaults and ranges is given in the Input Guide part of aaSIDRA User Guide.

---

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 130

Table S.0 - TRAFFIC FLOW DATA

Mov No.	Left LV	Left HV	Through LV	Through HV	Right LV	Right HV	Flow Scale	Peak Flow Factor
VEHICLES Demand flows in veh/hour as used by the program								
South: PR-185 S								
1	0	0	673	0	0	0	1.00	1.00
3	0	0	0	0	46	0	1.00	1.00
East: PR-957 E								
4	9	0	0	0	0	0	1.00	1.00
6	0	0	0	0	766	0	1.00	1.00

North: PR-185 N								
7	1294	0	0	0	0	0	1.00	1.00
8	0	0	1082	0	0	0	1.00	1.00

Based on unit time = 60 minutes.
Flow Scale and Peak Hour Factor effects included in flow values.

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 130

Table S.1 - MOVEMENT PHASE AND TIMING PARAMETERS

Mov No.	Mov Typ	PHASE MATRIX First Green Fr	To	Op	Pr	Second Green Fr	To	Op	Pr	Lost Tim 1st Grn	Lost Tim 2nd Grn	Req.Mov.Time 1st Grn	Req.Mov.Time 2nd Grn	Eff. Grn 1st Grn	Eff. Grn 2nd Grn
South: PR-185 S															
1 T		*A	B							4		56.8		41	
3 R	(Un1)	E	A	R		A	E			72	4	73.0	73.3	3	51
East: PR-957 E															
4 L		B	E							4		9.9		6	
6 R	(Un1)	E	B	R		*B	E			42	4	108.1	16.5	78	6
North: PR-185 N															
7 L		*E	A			A	B	L		4	42	83.6	56.8	71	3
8 T		E	B							4		84.1		116	

Current Phase Sequence No.: 3
Input phase sequence: E A B
Output phase sequence: E A B

* Critical Movement/Green Period

Movement Types:
- Ped Pedestrian
- Dum Dummy
- Und Undetected in both green periods
- Un1 Undetected in 1st green period
- Un2 Undetected in 2nd green period

Under heading 'Op':
- L "Left" turns are opposed
- R "Right" turns are opposed
- LR "Left and Right" opposed
- C "Constant" saturation flow

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 130

Table S.3 - INTERSECTION PARAMETERS

Critical Movements: 7(1st), 1, 6(2nd)

L= 12 Y= 1.003 U= 1.115 T= 156.9

Cycle Time:

Minimum	Maximum	Practical	Chosen
31	150	****	130

(Variable cycle times: Program-determined)

**** Y and U values are too large ****

Intersection Level of Service	=	E
Worst movement Level of Service	=	F
Average intersection delay (s)	=	72.2
Largest average movement delay (s)	=	135.8
Largest cycle-average queue, mean (m)	=	321
Performance Index	=	210.27
Degree of saturation (highest)	=	1.204
Practical Spare Capacity (lowest)	=	-25 %
Effective intersection capacity, (veh/h)	=	3215
Total vehicle flow (veh/h)	=	3870
Total person flow (pers/h)	=	5805
Total vehicle delay (veh-h/h)	=	77.64
Total person delay (pers-h/h)	=	116.47
Total effective vehicle stops (veh/h)	=	3735
Total effective person stops (pers/h)	=	5603
Total vehicle travel (veh-km/h)	=	2342.3
Total cost ($/h)	=	3332.10
Total fuel (L/h)	=	361.8
Total CO2 (kg/h)	=	904.47

---

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 130

Table S.4 - PHASE INFORMATION

Phase Change Times: 0, 75, 120
Phase Green Times: 71, 41, 6

Current Phase Sequence No.: 3
Input phase sequence: E A B
Output phase sequence: E A B

---

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 130

Table S.5 - MOVEMENT PERFORMANCE

Mov No.	Total Delay	Total Delay	Aver. Delay	Prop. Queued	Eff. Stop	Longest Queue Cycle	Longest Queue Aver.	Perf. Index	Aver. Speed

	(veh-h/h)	(pers-h/h)	(sec)		Rate	(vehs)	(m)		(km/h)
South: PR-185 S									
1 T	18.63	27.95	99.7	1.00	1.16	19.9	139	48.39	16.0
3 R	1.38	2.07	107.9	1.00	1.16	19.9	139	3.41	15.1
East: PR-957 E									
4 L	0.11	0.16	43.3	0.94	1.02	5.8	41	0.34	27.3
6 R	8.19	12.29	38.5	0.84	0.96	5.8	41	26.46	29.1
North: PR-185 N									
7 L	48.80	73.19	135.8	1.00	1.49	45.9	321	118.42	12.6
8 T	0.53	0.80	1.8	0.26	0.21	0.5	4	13.25	56.5

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 130

Table S.6 - INTERSECTION PERFORMANCE

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (m)	Perf. Index	Aver. Speed (km/h)
Pedestrians:									
2376	1.204	49.33	73.99	74.7	0.67	0.91	321	131.67	19.6
ALL VEHICLES:									
3870	1.204	77.64	116.47	72.2	0.76	0.97	321	210.27	20.0
INTERSECTION (persons):									
5805	1.204		116.47	72.2	0.76	0.97		210.27	20.0

Queue values in this table are mean cycle-average queue (metres).

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 130

Table S.14 - SUMMARY OF INPUT AND OUTPUT DATA

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (m)	Shrt Lane (m)
South: PR-185 S												
1 TR		673	46	719	0	1950	1	42	1.159	100.2	139	
	0	673	46	719	0				1.159	100.2	139	

East: PR-957 E												
1 LR	9		594	603	0	1950	65	6	0.891	43.0	41	
2 R			172	172	0	1950	78	6	0.891	23.0r	5	20
	9	0	766	775	0				0.891	38.6	41	
North: PR-185 N												
1 L	1294			1294	0	1949	71	3	1.203	135.8	321	
2 T		1082		1082	0	1949	116		0.622	1.8	4	
	1294	1082	0	2376	0				1.203	74.7	321	

ALL VEHICLES	Total Flow	% HV	Cycle Time	Max X	Aver. Delay	Max Queue
	3870	0	130	1.204	72.2	321

Total flow period = 60 minutes. Peak flow period = 15 minutes.

Queue values in this table are mean cycle-average queue (metres).

Note: Basic Saturation Flows (in through car units) have been adjusted for grade, lane widths, parking manoeuvres and bus stops.

r Delay, stops and queue length for this lane have been cut down to fit in the queuing space. The amount cut may not be accounted for fully in the adjacent lane performance statistics. You may wish to change the short lane to a full lane to investigate the extent of this effect.

---

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1
Fixed-Time Signals, Cycle Time = 130

Table S.15 - CAPACITY AND LEVEL OF SERVICE

Mov No.	Mov Typ	Green Time Ratio (g/C) 1st grn	2nd grn	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue Cycle (vehs)	Aver. (m)
South: PR-185 S										
1 T		0.315*		673	581	1.159	99.7	F	19.9	139
3 R	(Unl)	0.023	0.392	46	40	1.156	107.9	F	19.9	139
				719		1.159	100.2	F	19.9	139
East: PR-957 E										
4 L		0.046		9	10	0.890	43.3	D	5.8	41
6 R	(Unl)	0.600	0.046*	766	860<	0.891	38.5	D	5.8	41
				775		0.891	38.6	D	5.8	41
North: PR-185 N										
7 L		0.546*	0.023	1294	1075	1.204*	135.8	F	45.9	321

8 T	0.892	1082	1740	0.622	1.8	A	0.5	4
		2376		1.204	74.7	E	45.9	321
ALL VEHICLES:		3870		1.204	72.2	E	45.9	321
INTERSECTION (persons):		5805			72.2		45.9	321

Level of Service calculations are based on
average control delay including geometric delay (HCM criteria),
independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the
aaSIDRA Output Guide or the Output section of the on-line help.

< Reduced capacity due to a short lane effect

* Maximum v/c ratio, or critical green periods

---

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1

Table S.21 - VARIABLE CYCLE TIME RESULTS

Performance Measure	Smallest Value	Cycle Time
Degree of Satn	1.204	130
Average Delay	72.2	130
Stop Rate	0.96	150
Max. Queue for Any Movement	45.9	130
Perf. Index	210.3	130
Cost	3332.1	130

Performance Measure	Largest Value	Cycle Time
Eff. Inters. Cap.	3215	130
Prac. Spare Cap.	-25	130

If an "optimum" cycle time solution is adopted for actuated signal purposes
ensure that vehicle-actuated settings reflect this solution in real life.
Consider using the "sensitivity analysis" facility to optimise maximum
green settings for actuated signals.

---

01 Int PR-185 y PR-957
Pico PM Futuro + Semaforo
Intersection ID: 1

Table V.21 - INTERSECTION SUMMARY FOR VARIABLE CYCLE TIME

Cycle Time (sec)	Eff. Int. Cap.	Intersn Deg. of Satn	Prac. Spare Cap.	Aver. Delay (sec)	Stop Rate	Longest Queue (veh)	Perf. Index	Cost Total $/h	Unsett
60	2874	1.347	-33	98.5	1.27	63.9	273.3	4110.5	
70	1846	2.097	-57	214.3	1.61	188.8	529.6	7387.1	*
80	2170	1.783	-50	175.1	1.48	139.0	442.4	6277.7	*
90	2361	1.639	-45	162.2	1.39	116.7	412.8	5910.3	
100	2236	1.731	-48	171.1	1.38	132.7	431.7	6161.3	
110	2285	1.693	-47	161.0	1.32	127.4	408.8	5873.7	
120	2280	1.697	-47	162.5	1.30	129.0	411.4	5913.9	
130	3215	1.204	-25	72.2	0.97	45.9	210.3	3332.1	
140	3184	1.215	-26	75.1	0.97	48.3	216.6	3411.3	
150	3194	1.212	-26	77.3	0.96	48.2	221.0	3468.4	

* UNSETTLED RESULTS - Solution for this case has some uncertainty.
Refer to the HELP system or the User Guide for further information.

--- End of aaSIDRA Output ---

C:\Documents and Settings\Carlos M Contreras\My Documents\aaTraffic\aaSIDRA Projects\CampoRicoNewCastle\01_PR-185 y PR-957_FPSem.OUT
Produced by aaSIDRA 2.1.3.356
Copyright 2000-2004
Akcelik & Associates Pty Ltd

Generated 3:03 PM, 11 Jan 2006

Akcelik & Associates Pty Ltd - aaSIDRA 2.1.3.356

Traffic Consulting Group
Carlos M. Contreras User ID: M0276
Licence Type: Multi Computer

Time and Date of Analysis 2:56 PM, 13 Jan 2006

Filename: C:\Documents and Settings\Carlos M Contreras\My Documents\aaTraffic\aaSIDRA Projects\CampoRicoNewCastle\02_PR-957 y Acceso 1 SC_FA.OUT

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2

RUN INFORMATION

* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in Metric units
  Default Values File No. 30
  Peak flow period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes (Hourly Rate)
  Delay definition: Control delay
  Geometric delay included
  aaSIDRA Standard Delay and Queue models used
  Level of Service based on: Delay (HCM method)
  Queue definition: Cycle average queue, Average

---

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.0 - TRAFFIC FLOW DATA

Mov No.	Left LV	Left HV	Through LV	Through HV	Right LV	Right HV	Flow Scale	Peak Flow Factor
VEHICLES Demand flows in veh/hour as used by the program								
South: Acceso 1 S								
1	41	0	0	0	0	0	1.00	1.00
3	0	0	0	0	41	0	1.00	1.00
East: PR-957 E								
4	64	0	1043	0	0	0	1.00	1.00
West: PR-957 W								
10	0	0	293	0	0	0	1.00	1.00

12		0	0	0	0	64	0	1.00	1.00

Based on unit time = 60 minutes.
Flow Scale and Peak Hour Factor effects included in flow values.

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.2 - MOVEMENT CAPACITY PARAMETERS

Mov No.	Demand Flow (veh/h)	HV (%)	Opposing Flow (veh/h)	HV (%)	Movement Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
South: Acceso 1 S										
1 L	41	0.0	1368+	0.0	1368	465	0.80	807	100	0.088
3 R	41	0.0	325+	0.0	325	465	0.80	807	100	0.088
East: PR-957 E										
4 LT	1107	0.0	357	0.0	357	2070	0.80	50	12	0.535*
West: PR-957 W										
10 T	293	0.0	0			1950	0.80	432	100	0.150
12 R	64	0.0	0			1857	0.80	2221	100	0.034

\+ Percentage of exiting flow included in total opposing flow

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.3 - INTERSECTION PARAMETERS

Intersection Level of Service	=	NA
Worst movement Level of Service	=	C
Average intersection delay (s)	=	1.7
Largest average movement delay (s)	=	19.5
Largest cycle-average queue, mean (m)	=	1
Performance Index	=	17.41
Degree of saturation (highest)	=	0.535
Practical Spare Capacity (lowest)	=	50 %
Effective intersection capacity, (veh/h)	=	2891
Total vehicle flow (veh/h)	=	1546
Total person flow (pers/h)	=	2319
Total vehicle delay (veh-h/h)	=	0.71
Total person delay (pers-h/h)	=	1.07
Total effective vehicle stops (veh/h)	=	163
Total effective person stops (pers/h)	=	244
Total vehicle travel (veh-km/h)	=	936.9

Total cost ($/h)	=	493.54
Total fuel (L/h)	=	72.2
Total CO2 (kg/h)	=	180.43

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections. See Table S.15 or Movement Displays for individual movement LOS values.

---

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.5 - MOVEMENT PERFORMANCE

Mov No.	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue Cycle (vehs)	Longest Queue Aver. (m)	Perf. Index	Aver. Speed (km/h)
South: Acceso 1 S									
1 L	0.22	0.33	19.5	0.69	1.00	0.1	1	0.96	40.0
3 R	0.17	0.25	14.8	0.49	0.85	0.1	0	0.82	43.5
East: PR-957 E									
4 LT	0.17	0.26	0.6	0.02	0.04	0.0	0	11.63	59.1
West: PR-957 W									
10 T	0.00	0.00	0.0	0.00	0.00	0.0	0	2.96	60.0
12 R	0.15	0.22	8.2	0.00	0.67	0.0	0	1.03	49.0

---

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.6 - INTERSECTION PERFORMANCE

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (m)	Perf. Index	Aver. Speed (km/h)
South: Acceso 1 S									
82	0.088	0.39	0.59	17.2	0.59	0.93	1	1.79	41.6
East: PR-957 E									
1107	0.535	0.17	0.26	0.6	0.02	0.04	0	11.63	59.1
West: PR-957 W									
357	0.150	0.15	0.22	1.5	0.00	0.12	0	3.99	57.7
ALL VEHICLES:									
1546	0.535	0.71	1.07	1.7	0.05	0.11	1	17.41	57.5

INTERSECTION (persons):								
2319	0.535		1.07	1.7	0.05	0.11	17.41	57.5

Queue values in this table are mean cycle-average queue (metres).

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.7 - LANE PERFORMANCE

Lane No.	Mov No.	Dem Flow (veh /h)	Cap (veh /h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue Cycle (vehs)	Queue Aver. (m)	Short Lane (m)
South: Acceso 1 S									
1 L	1	26	298	0.088	22.2	1.00	0.1	1	
2 LR	1, 3	56	631	0.088	14.8	0.89	0.1	0	
East: PR-957 E									
1 L	4	64	1012	0.063	9.8	0.69	0.0	0	30
2 T	4	1043	1950	0.535	0.0	0.00	0.0	0	
West: PR-957 W									
1 T	10	293	1950	0.150	0.0	0.00	0.0	0	
2 R	12	64	1857	0.034	8.2	0.67	0.0	0	50

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.8A - LANE FLOW AND CAPACITY INFORMATION

Lane No.	Mov No.	Dem Flow (veh/h) Lef	Thru	Rig	Tot	Min Cap (veh /h)	Tot Cap (veh /h)	Deg. Satn x	Lane Util %
South: Acceso 1 S									
1 L	1	26	0	0	26	26	298	0.088	100
2 LR	1, 3	15	0	41	56	56	631	0.088	100
East: PR-957 E									
1 L	4	64	0	0	64	64	1012	0.063	12P
2 T	4	0	1043	0	1043	1043	1950	0.535	100

West: PR-957 W									
1 T	10	0	293	0	293	293	1950	0.150	100
2 R	12	0	0	64	64	64	1857	0.034	100

P Lane under-utilisation found by the "Program"

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

---

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.12A - FUEL CONSUMPTION, EMISSIONS AND COST - TOTAL

Mov No.	Fuel Total L/h	Cost Total $/h	HC Total kg/h	CO Total kg/h	NOX Total kg/h	CO2 Total kg/h
South: Acceso 1 S						
1 L	3.0	19.06	0.013	0.62	0.018	7.5
3 R	2.9	17.81	0.013	0.61	0.018	7.3
	5.9	36.87	0.026	1.23	0.035	14.8
East: PR-957 E						
4 LT	49.4	342.70	0.174	4.16	0.231	123.4
	49.4	342.70	0.174	4.16	0.231	123.4
West: PR-957 W						
10 T	12.6	89.02	0.044	0.91	0.057	31.6
12 R	4.3	24.94	0.018	0.87	0.026	10.6
	16.9	113.97	0.062	1.79	0.083	42.2
INTERSECTION:	72.2	493.54	0.262	7.18	0.349	180.4

PARAMETERS USED IN COST CALCULATIONS

Pump price of fuel ($/L)	=	0.900
Fuel resource cost factor	=	0.50
Ratio of running cost to fuel cost	=	3.0
Average income ($/h)	=	27.00
Time value factor	=	0.60
Average occupancy (persons/veh)	=	1.5
Light vehicle mass (1000 kg)	=	1.4
Heavy vehicle mass (1000 kg)	=	11.0
Light vehicle idle fuel rate (L/h)	=	1.350
Heavy vehicle idle fuel rate (L/h)	=	2.000

The idle fuel and vehicle mass parameters given above are the default values (data given in RIDES may override some of these parameters).

---

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.14 - SUMMARY OF INPUT AND OUTPUT DATA

Lane No.	Demand Flow (veh/h) L	T	R	Tot	%HV	Adj. Basic Satf.	Eff Grn (secs) 1st	2nd	Deg Sat x	Aver. Delay (sec)	Longest Queue (m)	Shrt Lane (m)
South: Acceso 1 S												
1 L	26			26	0				0.088	22.2	1	
2 LR	15		41	56	0				0.088	14.8	0	
	41	0	41	82	0				0.088	17.2	1	
East: PR-957 E												
1 L	64			64	0				0.063	9.8	0	30
2 T		1043		1043	0				0.535	0.0	0	
	64	1043	0	1107	0				0.535	0.6	0	
West: PR-957 W												
1 T		293		293	0				0.150	0.0	0	
2 R			64	64	0				0.034	8.2	0	50
	0	293	64	357	0				0.150	1.5		
ALL VEHICLES				Total Flow 1546	% HV 0				Max X 0.535	Aver. Delay 1.7	Max Queue 1	

Total flow period = 60 minutes. Peak flow period = 15 minutes.

Queue values in this table are mean cycle-average queue (metres).

Note: Basic Saturation Flows are not adjusted at roundabouts or sign-controlled intersections and apply only to continuous lanes.

---

02 PR-957 y Acceso 1 (Centro Comercial)
Pico AM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.15 - CAPACITY AND LEVEL OF SERVICE

Mov No.	Mov Typ	Total Flow	Total Cap.	Deg. of	Aver. Delay	LOS	Longest Queue Cycle	Aver.

	(veh /h)	(veh /h)	Satn (v/c)	(sec)		(vehs)	(m)
South: Acceso 1 S							
1 L	41	465	0.088	19.5	C	0.1	1
3 R	41	465	0.088	14.8	B	0.1	0
	82		0.088	17.2	C	0.1	1
East: PR-957 E							
4 LT	1107	2070	0.535*	0.6	A	0.0	0
	1107		0.535	0.6	A	0.0	0
West: PR-957 W							
10 T	293	1950	0.150	0.0	A	0.0	0
12 R	64	1857	0.034	8.2	A	0.0	0
	357		0.150	1.5	A	0.0	0
ALL VEHICLES:	1546		0.535	1.7	NA	0.1	1

Level of Service calculations are based on
average control delay including geometric delay (HCM criteria),
independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the
aaSIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at
two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

--- End of aaSIDRA Output ---

C:\Documents and Settings\Carlos M Contreras\My Documents\aaTraffic\aaSIDRA
Projects\CampoRicoNewCastle\02_PR-957 y Acceso 1 SC_FA.OUT
Produced by aaSIDRA 2.1.3.356
Copyright 2000-2004
Akcelik & Associates Pty Ltd

Generated 2:56 PM, 13 Jan 2006

Akcelik & Associates Pty Ltd - aaSIDRA 2.1.3.356

Traffic Consulting Group
Carlos M. Contreras
Licence Type: Multi Computer

User ID: M0276

Time and Date of Analysis 2:57 PM, 13 Jan 2006

Filename: C:\Documents and Settings\Carlos M Contreras\My Documents\aaTraffic\aaSIDRA Projects\CampoRicoNewCastle\02_PR-957 y Acceso 1 SC_FP.OUT

02 PR-957 y Acceso 1 (Centro Comercial)
Pico PM Futuro
Intersection ID: 2

RUN INFORMATION

* Basic Parameters:
  Intersection Type: Unsignalised - Two-Way Stop Control
  Driving on the right-hand side of the road
  Input data specified in Metric units
  Default Values File No. 30
  Peak flow period (for performance): 15 minutes
  Unit time (for volumes): 60 minutes (Hourly Rate)
  Delay definition: Control delay
  Geometric delay included
  aaSIDRA Standard Delay and Queue models used
  Level of Service based on: Delay (HCM method)
  Queue definition: Cycle average queue, Average

---

02 PR-957 y Acceso 1 (Centro Comercial)
Pico PM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.0 - TRAFFIC FLOW DATA

Mov No.	Left LV	Left HV	Through LV	Through HV	Right LV	Right HV	Flow Scale	Peak Flow Factor
VEHICLES Demand flows in veh/hour as used by the program								
South: Acceso 1 S								
1	225	0	0	0	0	0	1.00	1.00
3	0	0	0	0	225	0	1.00	1.00
East: PR-957 E								
4	206	0	550	0	0	0	1.00	1.00
West: PR-957 W								
10	0	0	1134	0	0	0	1.00	1.00

12	0	0	0	0	206	0	1.00	1.00

Based on unit time = 60 minutes.
Flow Scale and Peak Hour Factor effects included in flow values.

02 PR-957 y Acceso 1 (Centro Comercial)
Pico PM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.2 - MOVEMENT CAPACITY PARAMETERS

Mov No.	Demand Flow (veh/h)	HV (%)	Opposing Flow (veh/h)	HV (%)	Movement Adjust. Flow (pcu/h)	Total Cap. (veh /h)	Prac. Deg. Satn xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
South: Acceso 1 S										
1 L	225	0.0	1787+	0.0	1787	206	0.80	-27	100	1.092*
3 R	225	0.0	1237+	0.0	1237	206	0.80	-27	100	1.092*
East: PR-957 E										
4 LT	756	0.0	1340	0.0	1340	922	0.80	-2	34	0.820
West: PR-957 W										
10 T	1134	0.0	0			1950	0.80	38	100	0.582
12 R	206	0.0	0			1857	0.80	621	100	0.111

+ Percentage of exiting flow included in total opposing flow

02 PR-957 y Acceso 1 (Centro Comercial)
Pico PM Futuro
Intersection ID: 2
Stop Sign Controlled Intersection

Table S.3 - INTERSECTION PARAMETERS

Intersection Level of Service	=	NA
Worst movement Level of Service	=	F
Average intersection delay (s)	=	23.7
Largest average movement delay (s)	=	119.0
Largest cycle-average queue, mean (m)	=	49
Performance Index	=	63.96
Degree of saturation (highest)	=	1.092
Practical Spare Capacity (lowest)	=	-27 %
Effective intersection capacity, (veh/h)	=	2331
Total vehicle flow (veh/h)	=	2546
Total person flow (pers/h)	=	3819
Total vehicle delay (veh-h/h)	=	16.75
Total person delay (pers-h/h)	=	25.12
Total effective vehicle stops (veh/h)	=	1268
Total effective person stops (pers/h)	=	1901
Total vehicle travel (veh-km/h)	=	1541.4