APPENDIX E

INTERSECTION CAPACITY ANALYSIS RESULTS – TOTAL FUTURE (2006)

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	DY
Agency/Co.	Gorove/Slade Associates, Inc
Date Performed	09/15/04
Analysis Time Period	AM Peak

Site Information

Intersection	Columbia Rd & 17th Street
Jurisdiction	
Analysis Year	Total Future 2006

Project Description 1963-001

East/West Street: Columbia Rd | North/South Street: 17th Street

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	388	34	21	577	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate (veh/h)	0	388	34	21	577	0
Proportion of heavy vehicles, P_{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	1	1	0
Configuration			TR	L	T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	35	0	40	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate (veh/h)	35	0	40	0	0	0
Proportion of heavy vehicles, P_{HV}	0	0	0	0	0	0
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
Volume, v (vph)		21		75				
Capacity, c_m (vph)		1148		380				
v/c ratio		0.02		0.20				
Queue length (95%)		0.06		0.72				

Control Delay (s/veh)		8.2		16.8				
LOS		A		C				
Approach delay (s/veh)	--	--	16.8					
Approach LOS	--	--	C					

HCS2000™ Copyright © 2003 University of Florida, All Rights Reserved Version 4.1d

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*DY*
Agency/Co.	*Gorove/Slade Associates, Inc*
Date Performed	*09/15/04*
Analysis Time Period	*PM Peak*

Site Information

Intersection	*Columbia Rd & 17th Street*
Jurisdiction	
Analysis Year	*Total Future 2006*

Project Description *1963-001*

East/West Street: *Columbia Rd* | North/South Street: *17th Street*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*581*	*61*	*35*	*516*	*0*
Peak-hour factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate (veh/h)	*0*	*581*	*61*	*35*	*516*	*0*
Proportion of heavy vehicles, P_{HV}	*0*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*45*	*0*	*43*	*0*	*0*	*0*
Peak-hour factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate (veh/h)	*45*	*0*	*43*	*0*	*0*	*0*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*0*	*0*	*0*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*		*LR*				
Volume, v (vph)		*35*		*88*				
Capacity, c_m (vph)		*952*		*281*				
v/c ratio		*0.04*		*0.31*				
Queue length (95%)		*0.11*		*1.30*				

Control Delay (s/veh)		8.9		23.5				
LOS		A		C				
Approach delay (s/veh)	--	--	23.5					
Approach LOS	--	--	C					

HCS2000™ Copyright © 2003 University of Florida, All Rights Reserved Version 4.1d

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	DY
Agency/Co.	Gorove/Slade Associates, Inc
Date Performed	09/15/04
Analysis Time Period	AM Peak

Site Information

Intersection	Euclid Street & 17th Street
Jurisdiction	
Analysis Year	Total Future 2006

Project ID 1963-001

East/West Street: Euclid Street | North/South Street: 17th Street

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	8	99	14	18	117	16
%Thrus Left Lane	50			50		

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume	10	33	22	24	48	15
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate	121		151		65		87	
% Heavy Vehicles								
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	0.1		0.1		0.2		0.3	
Prop. Right-Turns	0.1		0.1		0.3		0.2	
Prop. Heavy Vehicle								
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	4.37		4.37		4.37		4.37	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value	3.20		3.20		3.20		3.20	
x, initial	0.11		0.13		0.06		0.08	
hd, final value	4.37		4.37		4.37		4.37	
x, final value	0.15		0.18		0.08		0.11	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.4		2.4		2.4		2.4	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	371		401		315		337	
Delay	8.13		8.33		7.85		8.11	
LOS	A		A		A		A	
Approach: Delay	8.13		8.33		7.85		8.11	
LOS	A		A		A		A	
Intersection Delay	8.15							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	DY
Agency/Co.	Gorove/Slade Associates,Inc
Date Performed	09/15/04
Analysis Time Period	PM Peak

Site Information

Intersection	Euclid Street & 17th Street
Jurisdiction	
Analysis Year	Total Future 2006

Project ID 1963-001

East/West Street: Euclid Street | North/South Street: 17th Street

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	13	197	27	12	53	11
%Thrus Left Lane	50			50		

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume	5	51	20	36	46	19
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate	237		76		76		101	
% Heavy Vehicles								
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.2		0.1		0.4	
Prop. Right-Turns	0.1		0.1		0.3		0.2	
Prop. Heavy Vehicle								
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	4.37		4.37		4.37		4.37	

Departure Headway and Service Time

hd, initial value	3.20		3.20		3.20		3.20	
x, initial	0.21		0.07		0.07		0.09	
hd, final value	4.37		4.37		4.37		4.37	
x, final value	0.29		0.10		0.10		0.13	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.4		2.4		2.4		2.4	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	487		326		326		351	
Delay	9.12		8.03		8.11		8.39	
LOS	A		A		A		A	
Approach: Delay	9.12		8.03		8.11		8.39	
LOS	A		A		A		A	
Intersection Delay	8.64							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	DY
Agency/Co.	Gorove/Slade Associates, Inc
Date Performed	09/15/04
Analysis Time Period	AM Peak

Site Information

Intersection	Kalorama Road & 17th Street
Jurisdiction	
Analysis Year	Total Future 2006

Project ID 1963-001

East/West Street: Kalorama Road | North/South Street: 17th Street

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	14	70	0	0	141	32
%Thrus Left Lane	50			50		

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume	13	8	14	36	0	51
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT		TR		LTR		LR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate	84		173		35		87	
% Heavy Vehicles								
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.2		0.0		0.4		0.4	
Prop. Right-Turns	0.0		0.2		0.4		0.6	
Prop. Heavy Vehicle								
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	4.39		4.39		4.39		4.39	

Departure Headway and Service Time

hd, initial value	3.20		3.20		3.20		3.20	
x, initial	0.07		0.15		0.03		0.08	
hd, final value	4.39		4.39		4.39		4.39	
x, final value	0.10		0.20		0.04		0.10	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.4		2.4		2.4		2.4	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	334		423		285		337	
Delay	7.89		8.19		7.60		7.73	
LOS	A		A		A		A	
Approach: Delay	7.89		8.19		7.60		7.73	
LOS	A		A		A		A	
Intersection Delay	7.97							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	DY
Agency/Co.	Gorove/Slade Associates, Inc
Date Performed	09/15/04
Analysis Time Period	PM Peak

Site Information

Intersection	Kalorama Street & 17th Street
Jurisdiction	
Analysis Year	Total Future 2006

Project ID 1963-001

East/West Street: Kalorama Street | North/South Street: 17th Street

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume	28	102	0	0	93	48
%Thrus Left Lane	50			50		

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume	11	11	10	51	0	41
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT		TR		LTR		LR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate	130		141		32		92	
% Heavy Vehicles								
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	0.2		0.0		0.3		0.6	
Prop. Right-Turns	0.0		0.3		0.3		0.4	
Prop. Heavy Vehicle								
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	4.38		4.38		4.38		4.38	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value	3.20		3.20		3.20		3.20	
x, initial	0.12		0.13		0.03		0.08	
hd, final value	4.38		4.38		4.38		4.38	
x, final value	0.16		0.16		0.04		0.11	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.4		2.4		2.4		2.4	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	380		391		282		342	
Delay	8.20		7.92		7.68		7.94	
LOS	A		A		A		A	
Approach: Delay	8.20		7.92		7.68		7.94	
LOS	A		A		A		A	
Intersection Delay	8.00							
Intersection LOS	A							

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*DY*
Agency/Co.	*Gorove/Slade Associates, Inc*
Date Performed	*09/15/04*
Analysis Time Period	*AM Peak*

Site Information

Intersection	*Kalorama & SITE*
Jurisdiction	
Analysis Year	*Total Future 2006*

Project Description *1963-001*

East/West Street: *Kalorama* | North/South Street: *SITE*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*32*	*10*	*0*	*0*	*2*	*50*
Peak-hour factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate (veh/h)	*32*	*10*	*0*	*0*	*2*	*50*
Proportion of heavy vehicles, P_{HV}	*0*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*18*	*0*	*11*
Peak-hour factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*18*	*0*	*11*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*0*	*0*	*0*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
Volume, v (vph)	*32*						*29*	
Capacity, c_m (vph)	*1567*						*942*	
v/c ratio	*0.02*						*0.03*	
Queue length (95%)	*0.06*						*0.10*	

Control Delay (s/veh)	7.3						8.9	
LOS	A						A	
Approach delay (s/veh)	--	--				8.9		
Approach LOS	--	--				A		

HCS2000™ Copyright © 2003 University of Florida, All Rights Reserved Version 4.1d

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	DY
Agency/Co.	Gorove/Slade Associates, Inc
Date Performed	09/15/04
Analysis Time Period	AM Peak

Site Information

Intersection	Kalorama & SITE
Jurisdiction	
Analysis Year	Total Future 2006

Project Description: 1963-001

East/West Street: Kalorama | North/South Street: SITE

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	46	4	0	0	9	71
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate (veh/h)	46	4	0	0	9	71
Proportion of heavy vehicles, P_{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	103	0	63
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate (veh/h)	0	0	0	103	0	63
Proportion of heavy vehicles, P_{HV}	0	0	0	0	0	0
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
Volume, v (vph)	46						166	
Capacity, c_m (vph)	1531						898	
v/c ratio	0.03						0.18	
Queue length (95%)	0.09						0.68	

Control Delay (s/veh)	7.4						9.9	
LOS	A						A	
Approach delay (s/veh)	--	--				9.9		
Approach LOS	--	--				A		

HCS2000™ Copyright © 2003 University of Florida, All Rights Reserved Version 4.1d

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	DY	Intersection	Kalorama Street & 16th Street
Agency/Co.	Gorove/Slade Associates, Inc	Jurisdiction	
Date Performed	09/15/04	Analysis Year	Total Future 2006
Analysis Time Period	AM Peak		
Project Description	1963-001		
East/West Street:	Kalorama Street	North/South Street:	16th Street
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	80	508	0	0	2181	117
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	80	508	0	0	2181	117
Percent Heavy Vehicles	0	–	–	0	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	0	2	1
Configuration	LT	T			T	R
Upstream Signal		0			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	43	0	87
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	0	0	0	43	0	87
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	80						130	
C (m) (vph)	291						54	
v/c	0.27						2.41	
95% queue length	1.09						13.19	
Control Delay	22.0						803.7	
LOS	C						F	
Approach Delay	–	–				803.7		
Approach LOS	–	–				F		

Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	DY	Intersection	Kalorama St & 16th St
Agency/Co.	Gorove/Slade Associates, Inc	Jurisdiction	
Date Performed	09/15/04	Analysis Year	Total Future 2006
Analysis Time Period	PM Peak		
Project Description	1963-001		
East/West Street:	Kalorama St	North/South Street:	16th St
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	86	1235	0	0	1066	78
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	86	1235	0	0	1066	78
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	0	2	1
Configuration	LT	T			T	R
Upstream Signal		0			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	79	0	129
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	0	0	0	79	0	129
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	86						208	
C (m) (vph)	674						149	
v/c	0.13						1.40	
95% queue length	0.44						13.26	
Control Delay	11.1						270.3	
LOS	B						F	
Approach Delay	--	--				270.3		
Approach LOS	--	--				F		

Rights Reserved

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	DY	Intersection	Kolorama Road & 16th Street
Agency or Co.	Gorove/Slade Associates, Inc	Area Type	CBD or Similar
Date Performed	10/04/04	Jurisdiction	
Time Period	AM Peak	Analysis Year	Total Future 2006 Mit
		Project ID	1963-001

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	0	0	0	0	0	0	2	0	0	3	0
Lane group		LR						LT			TR	
Volume, V (vph)	43		87				80	508			2181	117
% Heavy vehicles, %HV	0		0				0	0			0	0
Peak-hour factor, PHF	0.90		0.90				0.90	0.90			0.90	0.90
Pretimed (P) or actuated (A)	P		P				P	P			P	P
Start-up lost time, l_1		2.0						2.0			2.0	
Extension of effective green, e		2.0						2.0			2.0	
Arrival type, AT		3						3			3	
Unit extension, UE		3.0						3.0			3.0	
Filtering/metering, I		1.000						1.000			1.000	
Initial unmet demand, Q_b		0.0						0.0			0.0	
Ped / Bike / RTOR volumes	0		0	0						0		0
Lane width		12.0						12.0			12.0	
Parking / Grade / Parking	N	0	N	N		N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0						0			0	
Min. time for pedestrians, G_p	3.2			3.2						3.2		

Phasing	EB Only	02	03	04	NS Perm	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 70.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis, T = 0.25						Cycle Length, C = 100.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		145						653			2553	
Lane group capacity, c		306						1205			3243	
v/c ratio, X		0.47						0.54			0.79	
Total green ratio, g/C		0.20						0.70			0.70	
Uniform delay, d_1		35.4						7.3			10.0	

Progression factor, PF		1.000						1.000			1.000	
Delay calibration, k		0.50						0.50			0.50	
Incremental delay, d_2		5.2						1.8			2.0	
Initial queue delay, d_3												
Control delay		40.5						9.0			12.0	
Lane group LOS		D						A			B	
Approach delay	40.5						9.0			12.0		
Approach LOS	D						A			B		
Intersection delay	12.7			$X_c = 0.72$			Intersection LOS			B		

HCS2000™ Copyright © 2000 University of Florida, All Rights Reserved Version 4.1d

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	DY	Intersection	Kolorama Road & 16th Street
Agency or Co.	Gorove/Slade Associates, Inc	Area Type	CBD or Similar
Date Performed	10/04/04	Jurisdiction	
Time Period	PM Peak	Analysis Year	Total Future 2006 Mit
		Project ID	1963-001

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	0	0	0	0	0	0	2	0	0	3	0
Lane group		LR						LT			TR	
Volume, V (vph)	79		129				86	1235			1066	78
% Heavy vehicles, %HV	0		0				0	0			0	0
Peak-hour factor, PHF	0.90		0.90				0.90	0.90			0.90	0.90
Pretimed (P) or actuated (A)	P		P				P	P			P	P
Start-up lost time, l_1		2.0						2.0			2.0	
Extension of effective green, e		2.0						2.0			2.0	
Arrival type, AT		3						3			3	
Unit extension, UE		3.0						3.0			3.0	
Filtering/metering, I		1.000						1.000			1.000	
Initial unmet demand, Q_b		0.0						0.0			0.0	
Ped / Bike / RTOR volumes	0		0	0						0		0
Lane width		12.0						12.0			12.0	
Parking / Grade / Parking	N	0	N	N		N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0						0			0	
Min. time for pedestrians, G_p	3.2			3.2						3.2		

Phasing	EB Only	02	03	04	NS Perm	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 70.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis, T = 0.25						Cycle Length, C = 100.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		231						1468			1271	
Lane group capacity, c		308						1615			3234	
v/c ratio, X		0.75						0.91			0.39	
Total green ratio, g/C		0.20						0.70			0.70	
Uniform delay, d_1		37.6						12.4			6.2	

Progression factor, PF		1.000						1.000			1.000	
Delay calibration, k		0.50						0.50			0.50	
Incremental delay, d_2		15.4						9.1			0.4	
Initial queue delay, d_3												
Control delay		53.1						21.5			6.6	
Lane group LOS		D						C			A	
Approach delay	53.1						21.5			6.6		
Approach LOS	D						C			A		
Intersection delay	17.6			X_c = 0.87			Intersection LOS			B		

HCS2000™ Copyright © 2000 University of Florida, All Rights Reserved Version 4.1d

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	DY	Intersection	Euclid Street & 16th Street
Agency or Co.	Gorove/Slade Associates, Inc	Area Type	CBD or Similar
Date Performed	09/15/04	Jurisdiction	
Time Period	AM Peak	Analysis Year	Total Future 2006
		Project ID	1963-001

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	0	2	0	0	3	0
Lane group		LTR			LTR			LTR			LTR	
Volume, V (vph)	17	71	42	119	152	40	12	567	28	30	2225	19
% Heavy vehicles, %HV	0	0	0	0	0	0	0	0	0	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed (P) or actuated (A)	P	P	P	P	P	P	P	P	P	P	P	P
Start-up lost time, l_1		2.0			2.0			2.0			2.0	
Extension of effective green, e		2.0			2.0			2.0			2.0	
Arrival type, AT		3			3			3			3	
Unit extension, UE		3.0			3.0			3.0			3.0	
Filtering/metering, I		1.000			1.000			1.000			1.000	
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		12.0			12.0			12.0			12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 70.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis, T = 0.25						Cycle Length, C = 100.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		145			345			674			2526	
Lane group capacity, c		295			251			1929			3006	
v/c ratio, X		0.49			1.37			0.35			0.84	
Total green ratio, g/C		0.20			0.20			0.70			0.70	

Uniform delay, d_1		35.5			40.0			6.0			10.9	
Progression factor, PF		1.000			1.000			1.000			1.000	
Delay calibration, k		0.50			0.50			0.50			0.50	
Incremental delay, d_2		5.8			191.7			0.5			3.0	
Initial queue delay, d_3												
Control delay		41.2			231.7			6.5			14.0	
Lane group LOS		D			F			A			B	
Approach delay	41.2			231.7			6.5			14.0		
Approach LOS	D			F			A			B		
Intersection delay	34.0			$X_c = 0.96$			Intersection LOS			C		

HCS2000™ Copyright © 2000 University of Florida, All Rights Reserved Version 4.1d

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst		Intersection	Euclid Street & 16th Street
Agency or Co.	Gorovel Slade Associates, Inc	Area Type	CBD or Similar
Date Performed	09/15/04	Jurisdiction	
Time Period	PM Peak	Analysis Year	Total Future 2006
		Project ID	1963-001

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	0	2	0	0	3	0
Lane group		LTR			LTR			LTR			LTR	
Volume, V (vph)	35	174	36	52	89	84	38	1562	42	67	968	14
% Heavy vehicles, %HV	0	0	0	0	0	0	0	0	0	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed (P) or actuated (A)	P	P	P	P	P	P	P	P	P	P	P	P
Start-up lost time, l_1		2.0			2.0			2.0			2.0	
Extension of effective green, e		2.0			2.0			2.0			2.0	
Arrival type, AT		3			3			3			3	
Unit extension, UE		3.0			3.0			3.0			3.0	
Filtering/metering, I		1.000			1.000			1.000			1.000	
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		12.0			12.0			12.0			12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 70.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis, T = 0.25 | Cycle Length, C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		272			250			1825			1166	
Lane group capacity, c		288			224			1998			2273	
v/c ratio, X		0.94			1.12			0.91			0.51	
Total green ratio, g/C		0.20			0.20			0.70			0.70	

Uniform delay, d_1		39.5			40.0			12.5			7.0	
Progression factor, PF		1.000			1.000			1.000			1.000	
Delay calibration, k		0.50			0.50			0.50			0.50	
Incremental delay, d_2		40.5			94.8			7.9			0.8	
Initial queue delay, d_3												
Control delay		80.0			134.8			20.4			7.9	
Lane group LOS		E			F			C			A	
Approach delay	80.0			134.8			20.4			7.9		
Approach LOS	E			F			C			A		
Intersection delay	29.0			X_c = 0.96			Intersection LOS			C		

HCS2000™ Copyright © 2000 University of Florida, All Rights Reserved Version 4.1d