Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA 12/31/2008 Date Performed: Analysis Time Period: Freeway/Direction: I-80 EB From/To: Atlantic St/Taylor Rd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4010 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1114 Trucks and buses Recreational vehicles Ω Level Terrain type: Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 1530 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures pc/h/ln Flow rate, vp 1530 Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 69.7 mi/h Number of lanes, N 21.9 pc/mi/ln Density, D

Phone . Fax: E-mail: \_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: LSA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Atlantic St/Taylor Rd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - PM \_\_\_\_Flow Inputs and Adjustments\_\_\_\_ Volume, V 6844 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1901 Trucks and buses Recreational vehicles 0 Terrain type: Level Grade 0.00 Segment length 0.00 m i Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 2611 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 Free-flow speed, FFS mi/h Urban Freeway

LOS and Performance Measures

70.0

pc/h/ln

pc/mi/ln

mi/h

mi/h

Flow rate, vp

Density, D

Free-flow speed, FFS

Average passenger-car speed, S

Number of lanes, N

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Atlantic St/Taylor Rd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 6267 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1741 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 2391 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 2391 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 53.7 mi/h Number of lanes, N 44.5 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed: Analysis Time Period:	12/31/2008		
Freeway/Direction:			
From/To:	Atlantic St/Tayl	lor Rd	
Jurisdiction:	Rocklin		
Analysis Year:			
Description: Existing	Plus Approved Pro	ojects - PM	
	Flow Inputs and	d Adjustments	
Volume, V		5236	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	1454	v
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type: Grade		Level 0.00	Se S
Segment length		0.00	mi
Trucks and buses PCE,	ET	1.5	111 ±
Recreational vehicle P		1.2	
Heavy vehicle adjustme		0.971	
Driver population fact		1.00	
Flow rate, vp		1997	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed:		Measured	. /2
FFS or BFFS Lane width adjustment,	ET W	70.0 0.0	mi/h mi/h
Lateral clearance adju		0.0	mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjust:		3.0	mi/h
	•	70.0	mi/h
Free-flow speed, FFS		Urban Freew	ay
Free-flow speed, FFS			
•	LOS and Perform	mance Measures	
	LOS and Perform	mance Measures 1997	
Flow rate, vp	LOS and Perform		pc/h/ln mi/h
•		1997	pc/h/ln
Flow rate, vp Free-flow speed, FFS		1997 70.0	pc/h/ln mi/h

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA 12/31/2008 Date Performed: Analysis Time Period: Freeway/Direction: I-80 EB From/To: Taylor Rd/Rte 65 Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4157 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1155 Trucks and buses Recreational vehicles Level Terrain type: Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 1586 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures pc/h/ln Flow rate, vp 1586 Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 69.5 mi/h Number of lanes, N 22.8 pc/mi/ln Density, D

Phone . Fax: E-mail: \_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: LSA Date Performed: 12/31/08 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Taylor Rd/Rte 65 Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - PM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 6456 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1793 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 m i Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 2463 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 Free-flow speed, FFS mi/h

LOS and Performance Measures

Flow rate, vp

Density, D

Free-flow speed, FFS

Average passenger-car speed, S

Number of lanes, N

Urban Freeway

70.0

pc/h/ln

pc/mi/ln

mi/h

mi/h

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Taylor Rd/Rte 65 Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 5527 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1535 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 m i Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 2108 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ 12.0 Lane width Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures Flow rate, vp 2108 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 62.5 mi/h Number of lanes, N 33.7 pc/mi/ln Density, D

Fax: \_\_Operational Analysis\_\_\_\_\_ Arthur Black

HCS+: Basic Freeway Segments Release 5.2

Analyst: Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Taylor Rd/Rte 65

Jurisdiction: Rocklin Analysis Year

Phone:

E-mail:

Analysis Year: Description: Existing Plus Approved F	Projects - PM	
Flow Inputs a	and Adjustments	
Volume, V Peak-hour factor, PHF	4964 0.90	veh/h
Peak 15-min volume, v15	1379	v
Trucks and buses	6	왕
Recreational vehicles	0	8
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	1894	pc/h/ln
Speed Inputs	and Adjustments	
Lane width	12.0	ft.
Right-shoulder lateral clearance	6.0	ft.
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
• ,	Urban Freewa	У
LOS and Perfo	rmance Measures	
Elements and	1894	pc/h/ln
Flow rate, vp Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	66.6	mi/h
Number of lanes, N	3	1111/11
Density, D	28.4	pc/mi/ln
pensicy, b	20.4	pc/mr/in

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Rte 65/Rocklin Rd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3238 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 899 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 1235 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 1235 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 70.0 mi/h Number of lanes, N 17.6 pc/mi/ln Density, D

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	Operational Ana	itysts	
Analyst:	Arthur Black LSA		
Agency or Company: Date Performed:	12/31/2008		
Analysis Time Period:			
Freeway/Direction:	I-80 EB		
From/To:	Rte 65/Rocklin F	₹d	
Jurisdiction:	Rocklin		
Analysis Year:			
Description: Existing	Plus Approved Pro	ojects - PM	
	Flow Inputs and	d Adjustments	
Volume, V		5088	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	1413	v
Trucks and buses		6	8
Recreational vehicles		0	&
Terrain type: Grade		Level 0.00	%
Segment length		0.00	mi
Trucks and buses PCE,	ET	1.5	III I
Recreational vehicle P		1.2	
Heavy vehicle adjustme		0.971	
Driver population fact	or, fp	1.00	
Flow rate, vp		1941	pc/h/ln
	Speed Inputs ar	nd Adjustments_	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed: FFS or BFFS		Measured 70.0	mi/h
rrs or brrs	€T W	0.0	mi/h
Tane width adjustment		0.0	mi/h
Lane width adjustment, Lateral clearance adju	stment, fLC		
Lateral clearance adju			mi/h
	justment, fID	0.0	mi/h mi/h
Lateral clearance adju Interchange density ad	justment, fID	0.0	,
Lateral clearance adju Interchange density ad Number of lanes adjust	justment, fID	0.0	mi/h mi/h
Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	justment, fID	0.0 3.0 70.0 Urban Free	mi/h mi/h way
Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	justment, fID ment, fN	0.0 3.0 70.0 Urban Free	mi/h mi/h way
Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS  Flow rate, vp	justment, fID ment, fN	0.0 3.0 70.0 Urban Freew	mi/h mi/h way
Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS  Flow rate, vp Free-flow speed, FFS Average passenger-car	justment, fID ment, fNLOS and Perform	0.0 3.0 70.0 Urban Freew nance Measures_ 1941 70.0 65.9	mi/h mi/h way pc/h/ln
Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS  Flow rate, vp Free-flow speed, FFS	justment, fID ment, fNLOS and Perform	0.0 3.0 70.0 Urban Freet mance Measures_ 1941 70.0	mi/h mi/h way pc/h/ln mi/h

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/08 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Rte 65/Rocklin Rd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4298 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 1194 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 1640 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 1640 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 69.2 mi/h Number of lanes, N 23.7 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	12/31/2008		
Analysis Time Period:			
Freeway/Direction:			
From/To:	Rte 65/Rocklin R	d	
Jurisdiction:	Rocklin		
Analysis Year:			
Description: Existing	Plus Approved Pro	jects - PM	
	Flow Inputs and	Adjustments	
Volume, V		3939	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	1094	v
Trucks and buses		6	8
Recreational vehicles		0	8
Terrain type:		Level	
Grade		0.00	8
Segment length		0.00	mi
Trucks and buses PCE,		1.5	
Recreational vehicle P		1.2	
Heavy vehicle adjustme		0.971	
Driver population fact	or, fp	1.00	(2. (2.
Flow rate, vp		1503	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
	clearance	6.0	ft
Right-shoulder lateral		0 50	interchange/mi
Right-shoulder lateral Interchange density		0.50	Incoronange, mi
		3	111001011411907.111
Interchange density Number of lanes, N Free-flow speed:			incoronange, mi
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS		3 Measured 70.0	mi/h
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment,		3 Measured 70.0 0.0	mi/h mi/h
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju	stment, fLC	3 Measured 70.0 0.0 0.0	mi/h mi/h mi/h
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad	stment, fLC justment, fID	3 Measured 70.0 0.0 0.0 0.0	mi/h mi/h mi/h mi/h
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust	stment, fLC justment, fID	3 Measured 70.0 0.0 0.0 0.0 3.0	mi/h mi/h mi/h mi/h mi/h
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad	stment, fLC justment, fID	3 Measured 70.0 0.0 0.0 0.0 3.0 70.0	mi/h mi/h mi/h mi/h mi/h mi/h
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust	stment, fLC justment, fID	3 Measured 70.0 0.0 0.0 0.0 3.0	mi/h mi/h mi/h mi/h mi/h mi/h
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	stment, fLC justment, fID	3 Measured 70.0 0.0 0.0 0.0 3.0 70.0 Urban Freewa	mi/h mi/h mi/h mi/h mi/h mi/h
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	stment, fLC justment, fID ment, fN	3 Measured 70.0 0.0 0.0 0.0 3.0 70.0 Urban Freewa	mi/h mi/h mi/h mi/h mi/h mi/h
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	stment, fLC justment, fID ment, fN	3 Measured 70.0 0.0 0.0 0.0 3.0 70.0 Urban Freewa	mi/h mi/h mi/h mi/h mi/h mi/h mi/h
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS Flow rate, vp	stment, fLC justment, fID ment, fNLOS and Perform	3 Measured 70.0 0.0 0.0 0.0 3.0 70.0 Urban Freewa	mi/h mi/h mi/h mi/h mi/h mi/h mi/h y
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS  Flow rate, vp Free-flow speed, FFS	stment, fLC justment, fID ment, fNLOS and Perform	3 Measured 70.0 0.0 0.0 0.0 3.0 70.0 Urban Freewa ance Measures	mi/h mi/h mi/h mi/h mi/h mi/h mi/h mi/h

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: LSA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Rocklin Rd/Sierra College Blvd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2643 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 734 Trucks and buses Recreational vehicles Ω Level Terrain type: Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 1008 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures pc/h/ln Flow rate, vp 1008 Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 70.0 mi/h Number of lanes, N 3 14.4 Density, D pc/mi/ln

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Phone . Fax: E-mail: \_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: LSA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Rocklin Rd/Sierra College Blvd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - PM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4996 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1388 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 m i Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 1906 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 Free-flow speed, FFS mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 1906 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 66.5 mi/h Number of lanes, N 28.7 Density, D pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/08 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Rocklin Rd/Sierra College Blvd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4526 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 1257 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 1727 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 1727 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 68.6 mi/h Number of lanes, N 25.2 pc/mi/ln Density, D

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	Operational Ana	11ys1s	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed: Analysis Time Period:	12/31/2008		
Freeway/Direction:			
From/To:	Rocklin Rd/Sierr	a College Blvd	
Jurisdiction:	Rocklin	-	
Analysis Year:			
Description: Existing	Plus Approved Pro	jects - PM	
	Flow Inputs and	l Adjustments	
Volume, V		3549	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	986	v
Trucks and buses		6	%
Recreational vehicles		0	왕
Terrain type: Grade		Level 0.00	왕
Segment length		0.00	mi
Trucks and buses PCE, I	T.	1.5	шт
Recreational vehicle Po	CE, ER	1.2	
Heavy vehicle adjustmen		0.971	
Driver population fact	or, fp	1.00	
Flow rate, vp		1354	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed:		Measured	. (1
FFS or BFFS Lane width adjustment,	f T W	70.0 0.0	mi/h mi/h
Lateral clearance adju:		0.0	mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjust		3.0	mi/h
Free-flow speed, FFS		70.0	mi/h
		Urban Freewa	ay
	LOS and Perform	ance Measures	
Flow rate, vp		1354	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car	speed, S	70.0	mi/h
Number of lanes, N		3	
Density, D		19.3	pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Sierra College Blvd/Horseshoe Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2547 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 708 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 972 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 70.0 mi/h Number of lanes, N 13.9 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
	Operational Ana	.lysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	12/31/2008		
Analysis Time Period:	- 00		
Freeway/Direction:	I-80 EB	11/11	
From/To: Jurisdiction:	Sierra College B Rocklin	iva/Horsesnoe	
Analysis Year:	ROCKIIII		
Description: Existing	Plus Approved Pro	jects - PM	
	Flow Inputs and	Adjustments	
Volume, V		4745	veh/h
Peak-hour factor, PHF		0.90	· · · · · · · · · · · · · · · · · · ·
Peak 15-min volume, v1	5	1318	v
Trucks and buses		6	8
Recreational vehicles		0	%
Terrain type:		Level	
Grade		0.00	8
Segment length		0.00	mi
Trucks and buses PCE,		1.5	
Recreational vehicle P		1.2	
Heavy vehicle adjustme Driver population fact		0.971 1.00	
Flow rate, vp	JI, IP	1810	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft.
Interchange density	orcarance	0.50	interchange/mi
Number of lanes, N		3	
MARKET OF TAILED! IN		Measured	
		70.0	mi/h
	fLW	0.0	mi/h
Free-flow speed: FFS or BFFS Lane width adjustment,			mi/h
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju	stment, fLC	0.0	
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad	stment, fLC justment, fID	0.0	mi/h
Free-flow speed:     FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust	stment, fLC justment, fID	0.0	mi/h
Free-flow speed:     FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust	stment, fLC justment, fID	0.0 3.0 70.0	mi/h mi/h
Free-flow speed: FFS or BFFS Lane width adjustment,	stment, fLC justment, fID	0.0	mi/h mi/h
Free-flow speed:    FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	stment, fLC justment, fID	0.0 3.0 70.0 Urban Freew	mi/h mi/h ay
Free-flow speed:    FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	stment, fLC justment, fID ment, fN	0.0 3.0 70.0 Urban Freew	mi/h mi/h ay
Free-flow speed:     FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	stment, fLC justment, fID ment, fN	0.0 3.0 70.0 Urban Freew	mi/h mi/h
Free-flow speed:     FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Average passenger-car	stment, fLC justment, fID ment, fNLOS and Perform	0.0 3.0 70.0 Urban Freew Mance Measures 1810 70.0 67.7	mi/h mi/h ay
Free-flow speed:    FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS  Flow rate, vp Free-flow speed, FFS	stment, fLC justment, fID ment, fNLOS and Perform	0.0 3.0 70.0 Urban Freew mance Measures	mi/h mi/h ay pc/h/ln mi/h

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Sierra College Blvd/Horseshoe Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4369 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1214 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 1667 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 1667 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 69.0 mi/h Number of lanes, N 24.1 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	12/31/2008		
Analysis Time Period:			
	I-80 WB		
From/To:	Sierra College E	31vd/Horseshoe	
Jurisdiction:	Rocklin		
Analysis Year: Description: Existing	Plus Approved Pro	jects - PM	
	Flow Inputs and	l Adjustments	
Volume, V		3311	veh/h
Peak-hour factor, PHF		0.90	- ,
Peak 15-min volume, v15	j	920	v
Trucks and buses		6	왕
Recreational vehicles		0	%
Terrain type:		Level	
Grade		0.00	% 
Segment length Trucks and buses PCE, E	ı m	0.00	mi
Recreational vehicle PO		1.2	
Heavy vehicle adjustmer		0.971	
Driver population factor		1.00	
Flow rate, vp		1263	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed: FFS or BFFS		Measured 70.0	mi/h
Lane width adjustment,	f T.W	0.0	mi/n mi/h
Lateral clearance adjust		0.0	mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjustm		3.0	mi/h
Free-flow speed, FFS		70.0	mi/h
		Urban Freew	ay .
	LOS and Perform	nance Measures	
Flow rate, vp		1263	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	70.0	mi/h
Number of lanes, N		3	/ . / .
Density, D		18.0+	pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 NB From/To: I-80 to Harding Blvd Rocklin Jurisdiction: Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3799 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 1055 Trucks and buses 15 Recreational vehicles Level Terrain type: Grade 0.00 Segment length 0.00 m i Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 2269 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2. Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4 5 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures pc/h/ln Flow rate, vp 2269 Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 58.0 mi/h Number of lanes, N 39.1 Density, D pc/mi/ln

Fax: \_\_Operational Analysis\_\_\_\_\_ Arthur Black Agency or Company: LSA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 NB

I-80 to Harding Blvd

Rocklin

Phone .

E-mail:

Analyst:

From/To:

Jurisdiction:

HCS+: Basic Freeway Segments Release 5.2

Analysis Year: Description: Existing Plus Approved Projects - PM \_\_\_\_Flow Inputs and Adjustments\_\_\_\_ Volume, V 4144 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1151 Trucks and buses 15 Recreational vehicles Terrain type: Level Grade 0.00 Segment length 0.00 тi Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 2475 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_

Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4 5 mi/h 70.0 Free-flow speed, FFS mi/h Urban Freeway LOS and Performance Measures

Flow rate, vp pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S mi/h Number of lanes, N Density, D pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 SB From/To: I-80 to Harding Blvd Rocklin Jurisdiction: Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3515 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 976 Trucks and buses 15 Recreational vehicles Level Terrain type: Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 2099 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N 2. Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4 5 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures pc/h/ln Flow rate, vp 2099 Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 62.7 mi/h Number of lanes, N 33.5 pc/mi/ln Density, D

HCS+: Basic Freeway Segments Release 5.2

Phone . Fax: E-mail: \_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: LSA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 SB From/To: I-80 to Harding Blvd Rocklin Jurisdiction: Analysis Year: Description: Existing Plus Approved Projects - PM \_\_\_\_Flow Inputs and Adjustments\_\_\_\_ Volume, V 3324 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 923 Trucks and buses 15 Recreational vehicles 0 Terrain type: Level Grade 0.00 Segment length 0.00 тi Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 1985 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4 5 mi/h 70.0 Free-flow speed, FFS mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 1985 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 65.1 mi/h Number of lanes, N 30.5 Density, D pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 NB From/To: Harding Blvd/Blue Oaks Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3612 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1003 Trucks and buses 15 Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 Flow rate, vp 2157 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 2157 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 61.3 mi/h Number of lanes, N 35.2 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
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	Operational Ana	alysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	1/29/2009		
Analysis Time Period: Freeway/Direction:	Rte-65 NB		
From/To:	Harding Blvd/Blu	ne Oaks	
Jurisdiction:	Rocklin	ac cano	
Analysis Year:			
Description: Existing	Plus Approved Pro	ojects - PM	
	Flow Inputs and	d Adjustments	
Volume, V		3910	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	1086	v
Trucks and buses		15	왕
Recreational vehicles		0	%
Terrain type: Grade		Level 0.00	9.
Segment length		0.00	mi
Trucks and buses PCE,	ET	1.5	III I
Recreational vehicle P		1.2	
Heavy vehicle adjustme	•	0.930	
Driver population fact	or, fp	1.00	
Flow rate, vp		2335	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed: FFS or BFFS		Measured 70.0	mi/h
Lane width adjustment,	fT.W	0.0	mi/h
Lateral clearance adju		0.0	mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjust:		4.5	mi/h
Free-flow speed, FFS		70.0	mi/h
		Urban Freev	vay
	LOS and Perform	mance Measures_	
			(2. (2.
		2335	pc/h/ln
Flow rate, vp		2335 70.0	pc/n/in mi/h
Flow rate, vp Free-flow speed, FFS Average passenger-car	speed, S		
Flow rate, vp Free-flow speed, FFS	speed, S	70.0	mi/h

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 SB From/To: Harding Blvd/Blue Oaks Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Projects - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3344 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 929 Trucks and buses 15 Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 Flow rate, vp 1997 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 1997 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 64.9 mi/h Number of lanes, N 30.8 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
L-Mail.			
	Operational Ana	lysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	1/29/2009		
Analysis Time Period:			
Freeway/Direction:			
From/To:	Harding Blvd/Blu	ie Oaks	
Jurisdiction:	Rocklin		
Analysis Year: Description: Existing	Dlug Appropried Dug	ricata DM	
Description: Existing	rius Approved Pro	Jecus - PM	
	Flow Inputs and	l Adjustments	
Volume, V		3124	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	868	v
Trucks and buses		15	8
Recreational vehicles		0	용
Terrain type:		Level	
Grade		0.00	8
Segment length		0.00	mi
Trucks and buses PCE, I		1.5	
Recreational vehicle Po		1.2	
Heavy vehicle adjustmen		0.930	
Driver population factor Flow rate, vp	or, ip	1.00 1866	pc/h/ln
riow lace, vp		1000	pc/11/111
	Speed Inputs ar	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,		0.0	mi/h
Lateral clearance adjus		0.0	mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjustr	menc, IN	4.5 70.0	mi/h
Free-flow speed, FFS		70.0 Urban Freewa	mi/h
			_
	LOS and Perform	nance Measures	
Flow rate, vp		1866	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car	speed, S	67.0	mi/h
Number of lanes, N		2	
Density, D		27.8	pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Atlantic St/Taylor Rd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4027 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1119 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 1536 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 1536 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 69.7 mi/h Number of lanes, N 22.0 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
I Marri			
	Operational Ana	alysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	12/31/2008		
Analysis Time Period: Freeway/Direction:	T-80 FR		
From/To:	Atlantic St/Tayl	or Rd	
Jurisdiction:	Rocklin		
Analysis Year:			
Description: Existing	Plus Approved Plu	ıs Project - PM	
	Flow Inputs and	d Adjustments	
Volume, V		6905	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	1918	v
Trucks and buses		6	8
Recreational vehicles		0	%
Terrain type:		Level	
Grade		0.00	8
Segment length Trucks and buses PCE,	2 T	0.00 1.5	mi
Recreational vehicle P		1.2	
Heavy vehicle adjustme		0.971	
Oriver population factor, fp		1.00	
Flow rate, vp		2634	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed:		Measured	
FFS or BFFS	61 M	70.0 0.0	mi/h
Lane width adjustment, Lateral clearance adju		0.0	mi/h mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjust:		3.0	mi/h
Free-flow speed, FFS		70.0	mi/h
•		Urban Freew	ay
	LOS and Perform	nance Measures	
Flow rate, vp		2634	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
	sneed S		mi/h
Average passenger-car	speca, b		
	specu, s	3	

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Atlantic St/Taylor Rd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 6275 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1743 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 2394 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 2394 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 53.6 mi/h Number of lanes, N 44.7 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
	Operational Ana	llysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	12/31/2008		
Analysis Time Period:	T 0.0 MD		
reeway/Direction:	Atlantic St/Tayl	or Pd	
urisdiction:	Rocklin	.OI Nu	
nalysis Year:	NOCKIII		
escription: Existing	Plus Approved Plu	ıs Project - PM	
	Flow Inputs and	d Adjustments	
Volume, V		5290	veh/h
Peak-hour factor, PHF		0.90	*****
Peak 15-min volume, v15	5	1469	v
rucks and buses		6	%
Recreational vehicles		0	왕
errain type:		Level	
Grade		0.00	8
Segment length	. m	0.00	mi
rucks and buses PCE, E		1.5	
ecreational vehicle PC		1.2	
Meavy vehicle adjustment, fHV priver population factor, fp		1.00	
Clow rate, vp		2018	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
ree-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
ane width adjustment,		0.0	mi/h
ateral clearance adjus		0.0	mi/h mi/h
		3.0	mi/h mi/h
	MEIIC, LIN	70.0	mi/h
umber of lanes adjustm		Urban Freew	
Jumber of lanes adjustr		OIDUII IICCW	
Number of lanes adjustm Free-flow speed, FFS	IOS and Donfan		
Interchange density ad; Number of lanes adjustn Free-flow speed, FFS	LOS and Perform		
Jumber of lanes adjustmere-flow speed, FFS	LOS and Perform	nance Measures	pc/h/ln
Jumber of lanes adjusting the speed, FFS  The speed, FFS  The speed, FFS  The speed, FFS		nance Measures 2018 70.0	mi/h
Number of lanes adjustm Free-flow speed, FFS		nance Measures	

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA 12/31/2008 Date Performed: Analysis Time Period: Freeway/Direction: I-80 EB From/To: Taylor Rd/Rte 65 Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4175 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1160 Trucks and buses Recreational vehicles Level Terrain type: Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 1593 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures pc/h/ln Flow rate, vp 1593 Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 69.5 mi/h Number of lanes, N 22.9 pc/mi/ln Density, D

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Phone . Fax: E-mail: \_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: LSA Date Performed: 12/31/08 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Taylor Rd/Rte 65 Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - PM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 6525 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1813 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 тi Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 2489 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 Free-flow speed, FFS mi/h Urban Freeway LOS and Performance Measures Flow rate, vp pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S mi/h Number of lanes, N Density, D pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Taylor Rd/Rte 65 Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 5538 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1538 Trucks and buses Recreational vehicles Ω Level Terrain type: Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 2113 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures pc/h/ln Flow rate, vp 2113 Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 62.4 mi/h Number of lanes, N 33.9 pc/mi/ln Density, D

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Phone . Fax: E-mail: \_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: LSA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Taylor Rd/Rte 65 Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - PM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 5037 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1399 Trucks and buses Recreational vehicles 0 Terrain type: Level Grade 0.00 Segment length 0.00 тi Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 Free-flow speed, FFS mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 1922 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 66.2 mi/h Number of lanes, N 29.0 Density, D pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Rte 65/Rocklin Rd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3268 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 908 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 1247 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 1247 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 70.0 mi/h Number of lanes, N 17.8 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
E Maii.			
	Operational Ana	lysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	12/31/2008		
Analysis Time Period:			
Freeway/Direction:			
From/To:	Rte 65/Rocklin F	Rd	
Jurisdiction:	Rocklin		
Analysis Year:	Dlug Appropried Dlu	a Dwadaat DM	
Description: Existing	• • • • • • • • • • • • • • • • • • • •	,	
	Flow Inputs and	l Adjustments	
Volume, V		5200	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	1444	v
Trucks and buses		6	8
Recreational vehicles		0	8
Terrain type:		Level	
Grade		0.00	8
Segment length		0.00	mi
Trucks and buses PCE, I		1.5	
Recreational vehicle Po		1.2	
Heavy vehicle adjustmen		0.971	
Driver population factor	or, fp	1.00	(2. (2.
Flow rate, vp		1984	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,		0.0	mi/h
Lateral clearance adjus		0.0	mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjusts	ment, fN	3.0	mi/h
Free-flow speed, FFS		70.0	mi/h
		Urban Freewa	дy
	LOS and Perform	nance Measures	
Flow rate, vp		1984	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car :	speed, S	65.2	mi/h
Number of lanes, N		3	
Density, D		30.5	pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/08 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Rte 65/Rocklin Rd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4316 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1199 Trucks and buses Recreational vehicles Level Terrain type: Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 1646 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures pc/h/ln Flow rate, vp 1646 Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 69.2 mi/h Number of lanes, N 23.8 pc/mi/ln Density, D

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Phone . Fax: E-mail: \_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: LSA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Rte 65/Rocklin Rd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - PM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4057 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1127 Trucks and buses Recreational vehicles 0 Terrain type: Level Grade 0.00 Segment length 0.00 тi Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 1548 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 Free-flow speed, FFS mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 1548 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 69.7 mi/h Number of lanes, N 22.2 Density, D pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Rocklin Rd/Sierra College Blvd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2674 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 743 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 1020 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 1020 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 70.0 mi/h Number of lanes, N 14.6 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analyst:	Arthur Black		
3 2 1 - 2 -	LSA		
Date Performed:	12/31/2008		
Analysis Time Period: Freeway/Direction:	I-80 EB		
	Rocklin Rd/Sier	ra College Blvd	
Jurisdiction:	Rocklin		
Analysis Year:			
Description: Existing	Plus Approved Plu	ıs Project - PM	
	Flow Inputs and	d Adjustments	
Volume, V		5109	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		1419	V
Trucks and buses		6	90
Recreational vehicles Terrain type:		0 Level	*
Grade		0.00	%
Segment length		0.00	mi
Trucks and buses PCE, E	T	1.5	
Recreational vehicle PCE, ER		1.2	
Heavy vehicle adjustmen		0.971	
Driver population facto	r, fp	1.00	
Flow rate, vp		1949	pc/h/ln
	Speed Inputs as	nd Adjustments_	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N Free-flow speed:		3 Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus	tment, fLC	0.0	mi/h
Interchange density adj	ustment, fID	0.0	mi/h
Number of lanes adjustm	ent, fN	3.0	mi/h
Free-flow speed, FFS		70.0	mi/h
		Urban Free	way
	LOS and Perform	nance Measures_	
Flow rate, vp		1949	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	peed, S	65.8	mi/h
Number of lanes, N		3	4 . 42
Density, D		29.6	pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/08 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Rocklin Rd/Sierra College Blvd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4545 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 1263 Trucks and buses Recreational vehicles Level Terrain type: Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 1734 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures pc/h/ln Flow rate, vp 1734 Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 68.5 mi/h Number of lanes, N 25.3 pc/mi/ln Density, D

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Phone . Fax: E-mail: \_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: LSA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Rocklin Rd/Sierra College Blvd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - PM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3676 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1021 Trucks and buses Recreational vehicles Terrain type: Level Grade 0.00 Segment length 0.00 тi Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 1402 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3 0 mi/h 70.0 Free-flow speed, FFS mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 1402 pc/h/ln Free-flow speed, FFS 70.0 mi/h 70.0 Average passenger-car speed, S mi/h Number of lanes, N 20.0 Density, D pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 EB From/To: Sierra College Blvd/Horseshoe Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_Flow Inputs and Adjustments\_\_ Volume, V 2556 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 710 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 975 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 975 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 70.0 mi/h Number of lanes, N 13.9 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	12/31/2008		
Analysis Time Period:			
Freeway/Direction: From/To:	I-80 EB	/	
		31vd/Horseshoe	
Jurisdiction: Analysis Year:	Rocklin		
Description: Existing	Plus Approved Plu	ıs Project - PM	
	Flow Inputs and	d Adjustments	
Volume, V		4779	veh/h
Peak-hour factor, PHF		0.90	v C11/11
Peak 15-min volume, v15		1328	V
Trucks and buses		6	&
Recreational vehicles		0	%
Terrain type:		Level	
Grade Segment length		0.00	%
		0.00	mi
Trucks and buses PCE, I		1.5	
Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV		1.2 0.971	
Driver population factor		1.00	
Flow rate, vp	)		pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,		0.0	mi/h
Lateral clearance adjustment, fLC Interchange density adjustment, fID		0.0	mi/h mi/h
Number of lanes adjustr		3.0	mi/h
Free-flow speed, FFS		70.0	mi/h
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1		Urban Freeway	
	LOS and Perform	nance Measures	
Flow rate, vp		1823	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	67.6	mi/h
Number of lanes, N		3	
Density, D		27.0	pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 12/31/2008 Analysis Time Period: Freeway/Direction: I-80 WB From/To: Sierra College Blvd/Horseshoe Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4374 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 1215 Trucks and buses Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.971 Driver population factor, fp 1.00 Flow rate, vp 1669 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 1669 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 69.0 mi/h Number of lanes, N 24.2 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	12/31/2008		
Analysis Time Period:	- 00		
Freeway/Direction: From/To:	1-80 WB Sierra College E	land/Haraaahaa	
	Rocklin	oiva/noiseshoe	
Analysis Year:	NOCKIII		
Description: Existing	Plus Approved Plu	ıs Project - PM	
	Flow Inputs and	l Adjustments	
Volume, V		3348	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	930	v
Trucks and buses		6	8
Recreational vehicles		0	&
Terrain type:     Grade     Segment length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV		Level 0.00	<u>&amp;</u>
		0.00	mi
		1.5	
		1.2	
		0.971	
Driver population factor	or, fp	1.00	
Flow rate, vp		1277	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral clearance Interchange density		6.0	ft
			interchange/mi
Number of lanes, N		3	
Free-flow speed: FFS or BFFS		Measured 70.0	mi/h
Lane width adjustment,	fT.W	0.0	mi/h
Lateral clearance adjust		0.0	mi/h
Interchange density adjustment, fID		0.0	mi/h
Number of lanes adjustr	nent, fN	3.0	mi/h
Free-flow speed, FFS		70.0	mi/h
		Urban Freeway	7
	LOS and Perform	nance Measures	
Flow rate, vp		1277	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car	speed, S	70.0	mi/h
Number of lanes, N		3	/ . / 3
Density, D		18.2	pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 NB From/To: I-80 to Harding Blvd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3811 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 1059 Trucks and buses 15 Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 Flow rate, vp 2276 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 2276 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 57.8 mi/h Number of lanes, N 39.4 pc/mi/ln Density, D

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	operacional And	11 y 3 1 3	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed: Analysis Time Period:	1/29/2009		
Freeway/Direction:	Rte-65 NB		
From/To:	I-80 to Harding	Blvd	
Jurisdiction:	Rocklin		
Analysis Year:			
Description: Existing	Plus Approved Plu	ıs Project - PM	
	Flow Inputs and	l Adjustments	
Volume, V		4187	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	1163	V
Trucks and buses		15	%
Recreational vehicles Terrain type:		0 Level	ş
Grade		0.00	&
Segment length		0.00	mi
Trucks and buses PCE, ET		1.5	
Recreational vehicle PCE, ER		1.2	
Heavy vehicle adjustment, fHV Driver population factor, fp		0.930	
		1.00 2501	pc/h/ln
Flow rate, vp		2501	pc/11/111
	Speed Inputs ar	nd Adjustments_	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N Free-flow speed:		2 Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
dane widen ad justment,		0.0	mi/h
Lateral clearance adju	Interchange density adjustment, fID		mi/h
Lateral clearance adju Interchange density ad		0.0	
Lateral clearance adju Interchange density ad Number of lanes adjust		4.5	mi/h
Lateral clearance adju Interchange density ad Number of lanes adjust		4.5 70.0	mi/h
Lateral clearance adju Interchange density ad Number of lanes adjust		4.5	mi/h
Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS		4.5 70.0 Urban Free	mi/h way
Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	ment, fN	4.5 70.0 Urban Freet mance Measures_	mi/h way
Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS  Flow rate, vp Free-flow speed, FFS	ment, fNLOS and Perform	4.5 70.0 Urban Freen	mi/h way pc/h/ln mi/h
Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	ment, fNLOS and Perform	4.5 70.0 Urban Freet mance Measures_	mi/h way pc/h/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 SB From/To: I-80 to Harding Blvd Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3521 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 978 Trucks and buses 15 Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 Flow rate, vp 2103 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 2103 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 62.6 mi/h Number of lanes, N 33.6 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	1/29/2009		
Analysis Time Period:			
Freeway/Direction:			
From/To:	I-80 to Harding	Blvd	
Jurisdiction:	Rocklin		
Analysis Year:	Diagram and Diagra	- During DM	
Description: Existing	Plus Approved Plu	s Project - PM	
	Flow Inputs and	Adjustments	
Volume, V		3369	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	936	v
Trucks and buses		15	8
Recreational vehicles		0	8
Terrain type:		Level	
Grade		0.00	%
Segment length		0.00	mi
Trucks and buses PCE,		1.5	
Recreational vehicle P		1.2	
Heavy vehicle adjustme		0.930	
Driver population fact	or, fp	1.00	(2. (2.
Flow rate, vp		2012	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
		6.0	ft
	clearance	0.0	
Right-shoulder lateral	clearance	0.50	interchange/mi
Right-shoulder lateral Interchange density	clearance		interchange/mi
Right-shoulder lateral Interchange density Number of lanes, N	clearance	0.50	interchange/mi
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed: FFS or BFFS		0.50 2 Measured 70.0	mi/h
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment,	fLW	0.50 2 Measured 70.0 0.0	mi/h mi/h
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju	fLW stment, fLC	0.50 2 Measured 70.0 0.0	mi/h mi/h mi/h
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad	fLW stment, fLC justment, fID	0.50 2 Measured 70.0 0.0 0.0	mi/h mi/h mi/h mi/h
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust	fLW stment, fLC justment, fID	0.50 2 Measured 70.0 0.0 0.0 0.0	mi/h mi/h mi/h mi/h mi/h
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust	fLW stment, fLC justment, fID	0.50 2 Measured 70.0 0.0 0.0 0.0 4.5 70.0	mi/h mi/h mi/h mi/h mi/h mi/h
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust	fLW stment, fLC justment, fID	0.50 2 Measured 70.0 0.0 0.0 0.0	mi/h mi/h mi/h mi/h mi/h mi/h
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed:    FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	fLW stment, fLC justment, fID	0.50 2 Measured 70.0 0.0 0.0 4.5 70.0 Urban Freew	mi/h mi/h mi/h mi/h mi/h mi/h ai/h
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed:    FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	fLW stment, fLC justment, fID ment, fN	0.50 2 Measured 70.0 0.0 0.0 4.5 70.0 Urban Freew	mi/h mi/h mi/h mi/h mi/h mi/h ay
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed:     FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS Flow rate, vp	fLW stment, fLC justment, fID ment, fN	0.50 2 Measured 70.0 0.0 0.0 0.0 4.5 70.0 Urban Freew	mi/h mi/h mi/h mi/h mi/h mi/h ai/h
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS	fLW stment, fLC justment, fID ment, fNLOS and Perform	0.50 2 Measured 70.0 0.0 0.0 0.0 4.5 70.0 Urban Freew ance Measures	mi/h mi/h mi/h mi/h mi/h mi/h ay
Right-shoulder lateral Interchange density Number of lanes, N Free-flow speed:    FFS or BFFS Lane width adjustment, Lateral clearance adju Interchange density ad Number of lanes adjust Free-flow speed, FFS  Flow rate, vp Free-flow speed, FFS	fLW stment, fLC justment, fID ment, fNLOS and Perform	0.50 2 Measured 70.0 0.0 0.0 0.0 4.5 70.0 Urban Freew ance Measures	mi/h mi/h mi/h mi/h mi/h mi/h ai/h pi/h

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 NB From/To: Harding Blvd/Blue Oaks Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3617 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 1005 Trucks and buses 15 Recreational vehicles Ω Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 Flow rate, vp 2160 pc/h/ln \_\_\_\_Speed Inputs and Adjustments\_ Lane width 12.0 Right-shoulder lateral clearance 6.0 interchange/mi Interchange density 0.50 Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 70.0 mi/h Urban Freeway \_\_\_LOS and Performance Measures\_\_ Flow rate, vp 2160 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 61.2 mi/h Number of lanes, N 35.3 pc/mi/ln Density, D

Phone: E-mail:		Fax:	
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	Operational Ana	alysis	
analyst:	Arthur Black		
Agency or Company:	LSA		
Date Performed:	1/29/2009		
Analysis Time Period:			
reeway/Direction:		0-1	
rom/To:	Harding Blvd/Blu	ue Oaks	
urisdiction: .nalysis Year:	Rocklin		
escription: Existing	Plus Approved Plu	us Project - PM	
-	Flow Inputs and		
Volume, V		3927	veh/h
Peak-hour factor, PHF	-	0.90	
Peak 15-min volume, v1 Trucks and buses	)	1091 15	v &
Recreational vehicles		15	* %
errain type:		Level	-5
Grade		0.00	8
		0.00	mi
Segment length Trucks and buses PCE, ET		1.5	III I
Recreational vehicle P		1.2	
Heavy vehicle adjustment, fHV Driver population factor, fp		0.930	
		1.00	
low rate, vp		2345	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	6.0	ft
nterchange density		0.50	interchange/mi
Jumber of lanes, N		2	-
ree-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment, fLW		0.0	mi/h
Lateral clearance adjustment, fLC		0.0	mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjust	nent, fN	4.5	mi/h
ree-flow speed, FFS		70.0	mi/h
		Urban Freew	ay
	LOS and Perform	mance Measures	
Flow rate, vp		2345	pc/h/ln
		70.0	mi/h
		55.4	mi/h
Average passenger-car	speed, S		1112/11
Free-flow speed, FFS Average passenger-car Number of lanes, N Density, D	speed, S	2 42.3	pc/mi/ln

Phone: Fax: E-mail: \_\_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: T<sub>1</sub>SA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 SB From/To: Harding Blvd/Blue Oaks Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - AM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3347 veh/h 0.90 Peak-hour factor, PHF Peak 15-min volume, v15 930 Trucks and buses 15 Recreational vehicles Ω Level Terrain type: Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 1999 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2. Free-flow speed: Measured FFS or BFFS mi/h 70 0 Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4 5 mi/h 70.0 mi/h Free-flow speed, FFS Urban Freeway LOS and Performance Measures pc/h/ln Flow rate, vp 1999 Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 64.9 mi/h Number of lanes, N 30.8 pc/mi/ln Density, D

HCS+: Basic Freeway Segments Release 5.2

Phone . Fax: E-mail: \_\_Operational Analysis\_\_\_\_\_ Analyst: Arthur Black Agency or Company: LSA Date Performed: 1/29/2009 Analysis Time Period: Freeway/Direction: Rte-65 SB From/To: Harding Blvd/Blue Oaks Jurisdiction: Rocklin Analysis Year: Description: Existing Plus Approved Plus Project - PM \_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3142 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 873 Trucks and buses 15 Recreational vehicles 0 Terrain type: Level Grade 0.00 Segment length 0.00 Trucks and buses PCE, ET 1 5 Recreational vehicle PCE, ER 1 2 Heavy vehicle adjustment, fHV 0.930 Driver population factor, fp 1.00 1876 pc/h/ln Flow rate, vp \_\_\_\_\_Speed Inputs and Adjustments\_ Lane width 12 0 Right-shoulder lateral clearance 6.0 Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4 5 mi/h 70.0 Free-flow speed, FFS mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 1876 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 66.9 mi/h Number of lanes, N 28.0 Density, D pc/mi/ln