

ARTPLAN 2007 Conceptual Planning Analysis

Description/File Information

File Name	C:\Program Files\LOSPLAN2007\ARTPLAN\AP_CR 491 at SR 44\AM 2-lane.xml	Date Prepared	10/26/2007		
Program	ARTPLAN 2007	Version Date	9/20/07		
Analyst	CBM	Agency	DRMP	District	Citrus County
Arterial Name	CR 491	Begin Intersection	CR 486	End Intersection	SR 44
Study Period	K100	Peak Direction	Southbound		
User Notes	CR 491 from CR 486 to SR 44				

Facility Data

Roadway Variables		Traffic Variables		Control Variables	
Area Type	Transitioning/Urban	AADT	20649	# of Signals	1
Class	1	K	0.095	Control Type	Semiactuated
Posted Speed	45	D	0.54	Cycle Length	140
# Thru Lanes	2	PHF	0.91	Through g/C	0.25
Median Type	None	% Heavy Vehicles	6	Left g/C	0.14
Left Turn Lanes	Yes	% Left Turns	26	Arrival Type	3
LT Lane(s) Storage Length	235	% Right Turns	23		
Right Turn Lanes	Yes	Base Sat. Flow Rate	1950		
		Adj. Sat. Flow Rate	1581		

Automobile Intersection and Segment Data

Segment #	Cycle Length	Thru g/C	Left g/C	Arr. Type	Left Turn Lanes	Right Turn Lanes	% Left Turn	% Right Turn	INT # Dir. Lanes	Length	AADT	Hourly Vol.	SEG # Dir. Lanes	FFS	Median Type
1 (to SR 44)	140	0.25	0.14	3	Yes	Yes	26	23	1	2.9	20649	1059	1	50	None

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	LT Spill	Speed (mph)	Segment LOS	
1 (to SR 44)	594	1581	1.5	280	F	Yes#	20.6	F	
Arterial Length	2.90	Weighted g/C	0.25	FFS Delay	Threshold Delay	Auto Speed	###	Auto LOS	F

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 900 vphpl.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	180	720	760	***	***
2	410	1480	1540	***	***
3	640	2240	2330	***	2330
4	860	3000	3110	***	***
*	180	720	760	***	***
Lanes	Hourly Volume In Both Directions				
2	330	1330	1410	***	***
4	760	2740	2860	***	***
6	1190	4150	4310	***	4310
8	1590	5560	5760	***	***
*	330	1330	1410	***	***
Lanes	Annual Average Daily Traffic				
2	3500	14000	14800	***	***
4	8000	28800	30100	***	***
6	12500	43700	45400	***	45400
8	16800	58500	60600	***	***
*	3500	14000	14800	***	***

- * Service Volumes for the specific facility being analyzed, based on # of lanes from the intersection and segment data screens.
- ** Cannot be achieved based on input data provided.
- *** Not applicable for that level of service letter grade. See generalized tables notes for more details.
- # Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.
- ## Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
- ### Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.

ARTPLAN 2007 Conceptual Planning Analysis

Description/File Information

File Name	C:\Program Files\LOSPLAN2007\ARTPLAN\AP_CR 491 at SR 44 SB 2-lane.xml	Date Prepared	10/26/2007		
Program	ARTPLAN 2007	Version Date	9/20/07		
Analyst	CBM	Agency	DRMP	District	Citrus County
Arterial Name	CR 491	Begin Intersection	CR 486	End Intersection	SR 44
Study Period	K100	Peak Direction	Southbound		
User Notes	CR 491 from CR 486 to SR 44				

Facility Data

Roadway Variables		Traffic Variables		Control Variables	
Area Type	Transitioning/Urban	AADT	20649	# of Signals	1
Class	1	K	0.095	Control Type	Semiactuated
Posted Speed	45	D	0.54	Cycle Length	140
# Thru Lanes	2	PHF	0.87	Through g/C	0.25
Median Type	None	% Heavy Vehicles	2.4	Left g/C	0.14
Left Turn Lanes	Yes	% Left Turns	37	Arrival Type	3
LT Lane(s) Storage Length	235	% Right Turns	17		
Right Turn Lanes	Yes	Base Sat. Flow Rate	1950		
		Adj. Sat. Flow Rate	1615		

Automobile Intersection and Segment Data

Segment #	Cycle Length	Thru g/C	Left g/C	Arr. Type	Left Turn Lanes	Right Turn Lanes	% Left Turn	% Right Turn	INT # Dir. Lanes	Length	AADT	Hourly Vol.	SEG # Dir. Lanes	FFS	Median Type
1 (to SR 44)	140	0.25	0.14	3	Yes	Yes	37	17	1	2.9	20649	1059	1	50	None

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	LT Spill	Speed (mph)	Segment LOS
1 (to SR 44)	560	1615	1.39	228.07	F	Yes#	22.9	F

Arterial Length	2.90	Weighted g/C	0.25	FFS Delay	Threshold Delay	Auto Speed	###	Auto LOS	F
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Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 900 vphpl.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	200	790	870	***	***
2	430	1620	1760	1770	***
3	660	2450	2660	***	2660
4	890	3280	3550	***	***
*	200	790	870	***	***
Lanes	Hourly Volume In Both Directions				
2	370	1460	1600	***	***
4	800	3000	3260	3270	***
6	1220	4540	4920	***	4920
8	1650	6070	6570	***	***
*	370	1460	1600	***	***
Lanes	Annual Average Daily Traffic				
2	3900	15400	16900	***	***
4	8400	31600	34300	34400	***
6	12900	47800	51800	***	51800
8	17300	63900	69200	***	***
*	3900	15400	16900	***	***

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Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.
Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
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ARTPLAN 2007 Conceptual Planning Analysis

Description/File Information

File Name	C:\Program Files\LOSPLAN2007\ARTPLAN\AP_SR44_340_peak_nonpeak_rev.xml	Date Prepared	4/28/2008		
Program	ARTPLAN 2007	Version Date	9/20/07		
Analyst	CBM	Agency	DRMP	District	Citrus
Arterial Name	SR 44	Begin Intersection	Turkey Oak Dr	End Intersection	US 19
Study Period	K100	Peak Direction	Westbound		
User Notes	Segment 340, Turkey Oak to US 19				

Facility Data (Auto)

Roadway Variables		Traffic Variables		Control Variables	
Area Type	Other Urbanized	AADT	23000	# of Signals	1
Class	1	K	0.094	Control Type	Actuated
Posted Speed	45	D	0.54	Cycle Length	120
# Thru Lanes	4	PHF	0.935	Through g/C	0.33
Median Type	Non-Restrictive	% Heavy Vehicles (Peak)	5	Left g/C	0.1
Left Turn Lanes	No	% Heavy Vehicles (Off-Peak)	5	Arrival Type (Peak)	3
LT Lane(s) Storage Length	N/A	% Left Turns (Peak)	0	Arrival Type (Off-Peak)	3
Right Turn Lanes	Yes	% Right Turns (Peak)	41		
		% Left Turns (Off-Peak)	9		
		% Right Turns (Off-Peak)	1		
		Adj. Sat. Flow Rate (Peak)	1377		
		Adj. Sat. Flow Rate (Off-Peak)	1389		

Automobile Intersection and Segment Data (Peak)

Segment #	Cycle Length	Thru g/C	Left g/C	Arr. Type	Left Turn Lanes	Right Turn Lanes	% Left Turn	% Right Turn	INT # Dir. Lanes	Length	AADT	Hourly Vol.	SEG # Dir. Lanes	FFS	Median Type
1 (to US 19)	120	0.33		3	No	Yes	0	41	2	1.39	23000	1167	2	50	Non-Restrictive

Automobile Intersection and Segment Data (Off-Peak)

Segment #	Cycle Length	Thru g/C	Left g/C	Arr. Type	Left Turn Lanes	Right Turn Lanes	% Left Turn	% Right Turn	INT # Dir. Lanes	Length	AADT	Hourly Vol.	SEG # Dir. Lanes	FFS	Median Type
1 (to Turkey Oak Dr)	100	0.5		3	No	No	9	1	2	1.39	23000	995	2	50	Non-Restrictive

Automobile LOS (Peak)

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	LT Spill	Speed (mph)	Segment LOS			
1 (to US 19)	736	1377	0.81	39.53	D	No	34.3	B			
Arterial Length	1.39	Weighted g/C	0.33	FFS Delay	45.8	Threshold Delay	0.0	Auto Speed	34.3	Auto LOS	B

Automobile LOS (Off-Peak)

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	LT Spill	Speed (mph)	Segment LOS			
1 (to Turkey Oak Dr)	1064	1387	0.77	21.76	C	No	39.5	B			
Arterial Length	1.39	Weighted g/C	0.50	FFS Delay	26.6	Threshold Delay	0.0	Auto Speed	39.5	Auto LOS	B

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 950 vphpl.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	**	550	770	***	***
2	**	1200	1560	***	***
3	**	1870	2360	***	***
4	**	2540	3150	***	***
*	**	1200	1560	***	***
Lanes	Hourly Volume In Both Directions				
2	**	1020	1420	***	***
4	**	2220	2890	***	***
6	**	3460	4360	***	***
8	**	4700	5830	***	***
*	**	2220	2890	***	***
Lanes	Annual Average Daily Traffic				
2	**	10800	15100	***	***
4	**	23600	30800	***	***
6	**	36800	46400	***	***
8	**	50000	62000	***	***
*	**	23600	30800	***	***

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Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
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ARTPLAN 2007 Conceptual Planning Analysis

Description/File Information

File Name	C:\Program Files\LOSPLAN2007\ARTPLAN\AP_RockCrusher 323 SB Jan.xml	Date Prepared	4/28/2008		
Program	ARTPLAN 2007	Version Date	9/20/07		
Analyst	CBM	Agency	DRMP	District	Citrus
Arterial Name	Rock Crusher Rd (323)	Begin Intersection	Venable St	End Intersection	CR 490
Study Period	K100	Peak Direction	Southbound		
User Notes	Seg 323 from Venable St to CR 490				

Facility Data (Auto)

Roadway Variables		Traffic Variables		Control Variables	
Area Type	Other Urbanized	AADT	4859	# of Signals	1
Class	1	K	0.095	Control Type	Actuated
Posted Speed	45	D	0.54	Cycle Length	65
# Thru Lanes	2	PHF	0.82	Through g/C	0.46
Median Type	None	% Heavy Vehicles (Peak)	4.1	Left g/C	0.1
Left Turn Lanes	No	% Heavy Vehicles (Off-Peak)	4.6	Arrival Type (Peak)	3
LT Lane(s) Storage Length	N/A	% Left Turns (Peak)	28	Arrival Type (Off-Peak)	3
Right Turn Lanes	No	% Right Turns (Peak)	0		
		% Left Turns (Off-Peak)	13		
		% Right Turns (Off-Peak)	6		
		Adj. Sat. Flow Rate (Peak)	1250		
		Adj. Sat. Flow Rate (Off-Peak)	1255		

Automobile Intersection and Segment Data (Peak)

Segment #	Cycle Length	Thru g/C	Left g/C	Arr. Type	Left Turn Lanes	Right Turn Lanes	% Left Turn	% Right Turn	INT # Dir. Lanes	Length	AADT	Hourly Vol.	SEG # Dir. Lanes	FFS	Median Type
1 (to CR 490)	65	0.46		3	No	No	28	0	1	2.7	4859	249	1	50	None

Automobile Intersection and Segment Data (Off-Peak)

Segment #	Cycle Length	Thru g/C	Left g/C	Arr. Type	Left Turn Lanes	Right Turn Lanes	% Left Turn	% Right Turn	INT # Dir. Lanes	Length	AADT	Hourly Vol.	SEG # Dir. Lanes	FFS	Median Type
1 (to Venable St)	50	0.5		3	No	No	13	6	1	2.7	4859	212	1	50	None

Automobile LOS (Peak)

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	LT Spill	Speed (mph)	Segment LOS			
1 (to CR 490)	304	1271	0.52	13.16	B	No	47.2	A			
Arterial Length	2.70	Weighted g/C	0.46	FFS Delay	11.4	Threshold Delay	0.0	Auto Speed	47.2	Auto LOS	A

Automobile LOS (Off-Peak)

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	LT Spill	Speed (mph)	Segment LOS			
1 (to Venable St)	259	1254	0.41	8.28	A	No	48.8	A			
Arterial Length	2.70	Weighted g/C	0.50	FFS Delay	4.9	Threshold Delay	0.0	Auto Speed	48.8	Auto LOS	A

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 950 vphpl.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	480	550	600	***	***
2	1000	1130	1220	***	***
3	1510	1700	1830	***	***
4	2030	2280	2450	***	***
*	480	550	600	***	***
Lanes	Hourly Volume In Both Directions				
2	890	1020	1110	***	***
4	1850	2090	2250	***	***
6	2800	3150	3390	***	***
8	3760	4220	4540	***	***
*	890	1020	1110	***	***
Lanes	Annual Average Daily Traffic				
2	9400	10700	11700	***	***
4	19500	22000	23700	***	***
6	29400	33100	35700	***	***
8	39600	44400	47800	***	***
*	9400	10700	11700	***	***

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Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.

ARTPLAN 2007 Conceptual Planning Analysis

Description/File Information

File Name	C:\Program Files\LOSPLAN2007\ARTPLAN\AP_RockCrusher 325 FINAL SB Jan.xml	Date Prepared	4/22/2008		
Program	ARTPLAN 2007	Version Date	9/20/07		
Analyst	CBM	Agency	DRMP	District	Citrus
Arterial Name	Rock Crusher Rd	Begin Intersection	SR 44	End Intersection	Venable St
Study Period	K100	Peak Direction	Northbound		
User Notes	Seg 325 from Venable St to SR 44				

Facility Data (Auto)

Roadway Variables		Traffic Variables		Control Variables	
Area Type	Other Urbanized	AADT	7581	# of Signals	1
Class	1	K	0.095	Control Type	Actuated
Posted Speed	50	D	0.52	Cycle Length	65
# Thru Lanes	2	PHF	0.835	Through g/C	0.38
Median Type	None	% Heavy Vehicles (Peak)	4	Left g/C	0.1
Left Turn Lanes	No	% Heavy Vehicles (Off-Peak)	4.6	Arrival Type (Peak)	3
LT Lane(s) Storage Length	N/A	% Left Turns (Peak)	41	Arrival Type (Off-Peak)	3
Right Turn Lanes	No	% Right Turns (Peak)	18		
		% Left Turns (Off-Peak)	5		
		% Right Turns (Off-Peak)	25		
		Adj. Sat. Flow Rate (Peak)	1276		
		Adj. Sat. Flow Rate (Off-Peak)	1291		

Automobile Intersection and Segment Data (Peak)

Segment #	Cycle Length	Thru g/C	Left g/C	Arr. Type	Left Turn Lanes	Right Turn Lanes	% Left Turn	% Right Turn	INT # Dir. Lanes	Length	AADT	Hourly Vol.	SEG # Dir. Lanes	FFS	Median Type
1 (to Venable St)	50	0.6		3	No	No	5	25	1	1.136	7426	367	1	55	None

Automobile Intersection and Segment Data (Off-Peak)

Segment #	Cycle Length	Thru g/C	Left g/C	Arr. Type	Left Turn Lanes	Right Turn Lanes	% Left Turn	% Right Turn	INT # Dir. Lanes	Length	AADT	Hourly Vol.	SEG # Dir. Lanes	FFS	Median Type
1 (to SR 44)	65	0.39		3	No	No	39	19	1	1.136	7426	339	1	55	None

Automobile LOS (Peak)

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	LT Spill	Speed (mph)	Segment LOS			
1 (to Venable St)	440	1293	0.57	6.85	A	No	49.2	A			
Arterial Length	1.14	Weighted g/C	##	FFS Delay	8.8	Threshold Delay	0.0	Auto Speed	49.2	Auto LOS	A

Automobile LOS (Off-Peak)

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	LT Spill	Speed (mph)	Segment LOS			
1 (to SR 44)	406	1298	0.8	22.29	C	No	41.6	B			
Arterial Length	1.14	Weighted g/C	0.39	FFS Delay	23.8	Threshold Delay	0.0	Auto Speed	41.6	Auto LOS	B

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 950 vphpl.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	640	700	740	790	***
2	1330	1410	1510	1610	***
3	2020	2140	2280	2430	***
4	2710	2860	3050	3250	***
*	640	700	740	790	***
Lanes	Hourly Volume In Both Directions				
2	1230	1350	1420	1530	***
4	2560	2710	2900	3100	***
6	3880	4120	4380	4670	***
8	5210	5500	5870	6240	***
*	1230	1350	1420	1530	***
Lanes	Annual Average Daily Traffic				
2	13000	14200	15000	16100	***
4	26900	28500	30600	32600	***
6	40900	43300	46200	49200	***
8	54900	57900	61700	65700	***
*	13000	14200	15000	16100	***

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