

From: Miguel Nunez <M.Nunez@fehrandpeers.com>
Sent time: 08/06/2019 02:50:47 PM
To: Eduardo Hermoso <eduardo.hermoso@lacity.org>
Subject: Signal Warrant Information
Attachments: Dwy Signal Warrant Summary.pdf SignalWarrantOutputs.pdf

Hi Eduardo,

I'm providing a table summarizing the signal warrant analysis and the signal warrant outputs that the summary table is based on. Please take a look at the attached and let me know if you have any questions or comments. I'll give you call to confirm you have received the attachments.

Thank you.

Regards,
Miguel

Miguel Núñez, AICP
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**TABLE X.1
HOLLYWOOD CENTER
SIGNAL WARRANT ANALYSIS - RESIDENTIAL SCENARIO**

NO.	INTERSECTION	PEAK HOUR	SIGNAL WARRANT MET?					
			EXISTING	EXISTING PLUS PROJECT	FUTURE (2027)	FUTURE (2027) PLUS PROJECT	FUTURE (2040)	FUTURE (2040) PLUS PROJECT
-	Argyle Avenue & Alley Driveway	AM	-	NO	-	NO	-	YES
		PM	-	YES	-	YES	-	YES

**TABLE X.2
HOLLYWOOD CENTER
SIGNAL WARRANT ANALYSIS - HOTEL SCENARIO**

NO.	INTERSECTION	PEAK HOUR	SIGNAL WARRANT MET?					
			EXISTING	EXISTING PLUS PROJECT	FUTURE (2027)	FUTURE (2027) PLUS PROJECT	FUTURE (2040)	FUTURE (2040) PLUS PROJECT
-	Argyle Avenue & Alley Driveway	AM	-	NO	-	YES	-	YES
		PM	-	YES	-	YES	-	YES

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Major Street Argyle Ave
 Minor Street Alley Driveway

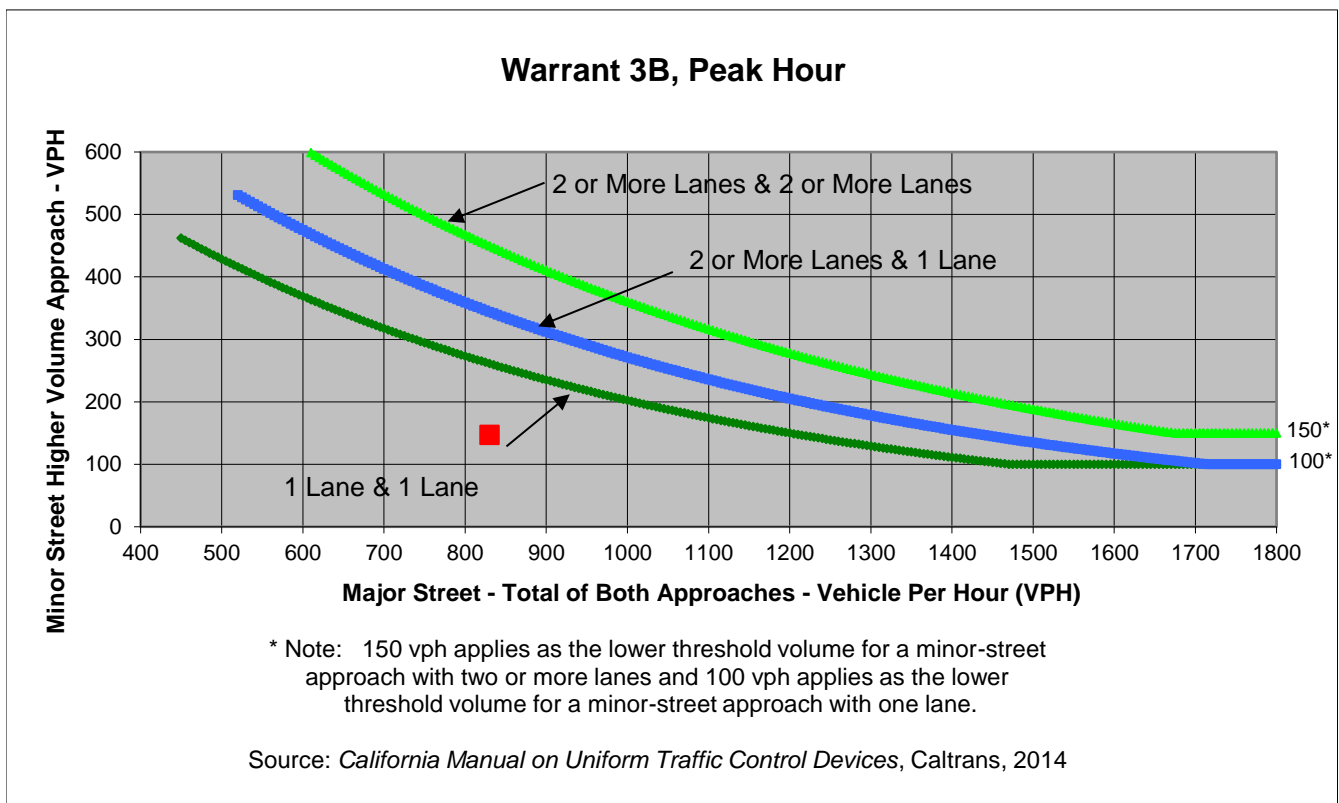
Project Hollywood Center
 Scenario EP_AM Residential
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	71	29	59	20
Through	245	340	0	0
Right	62	83	88	31
Total	378	452	147	51

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	830	147	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario EP_AM Residential
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	71	29	59	20
Through	245	340	0	0
Right	62	83	88	31
Total	378	452	147	51

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	23.2
Approach with Worst Case Delay	EB
Total Vehicles on Approach	147

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Served (vph)
EP_AM Residential	0.9	147	1,028
Limiting Value	4	100	800
Condition Satisfied?	Not Met	Met	Met
Warrant Met	<u>NO</u>		

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Major Street Argyle Ave
 Minor Street Alley Driveway

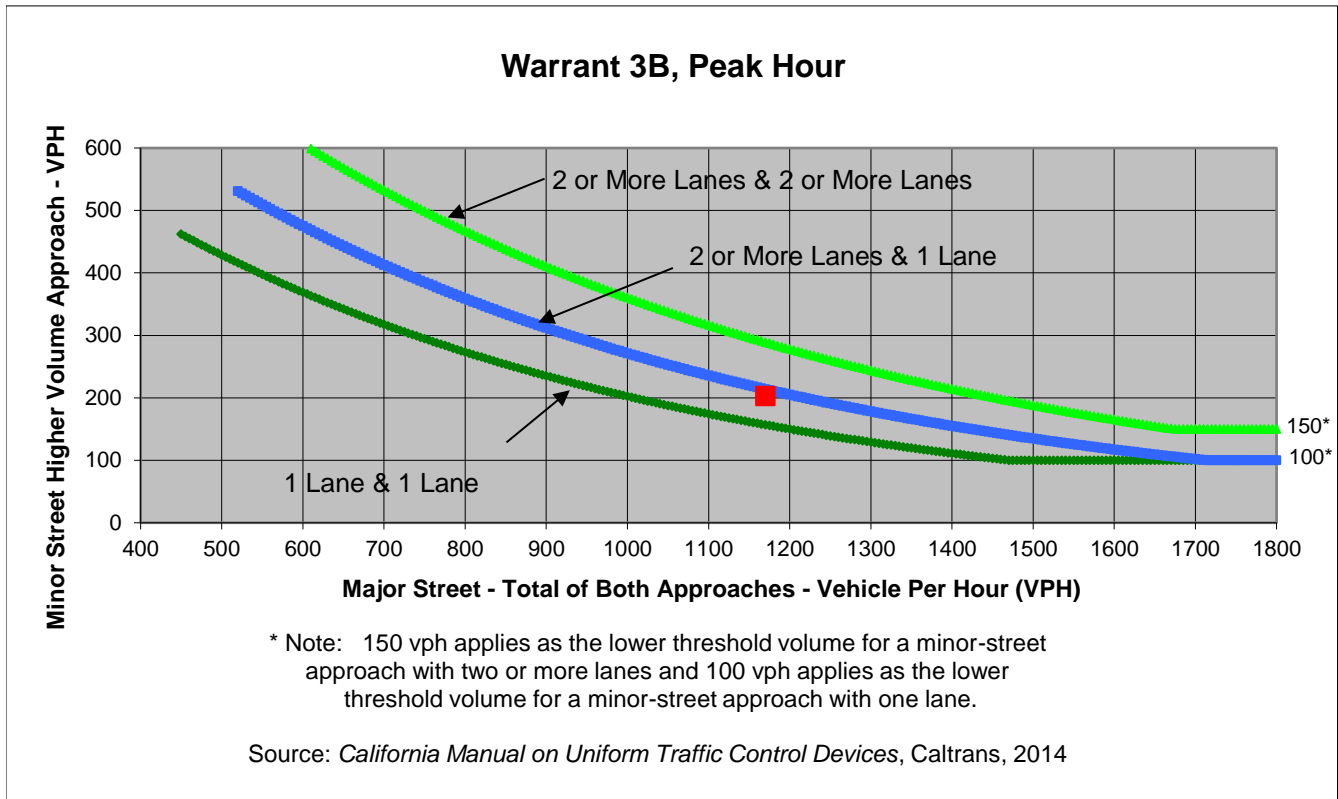
Project Hollywood Center
 Scenario EP_PM Residential
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	128	24	87	25
Through	637	198	0	0
Right	86	97	116	41
Total	851	319	203	66

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,170	203	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario EP_PM Residential
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	128	24	87	25
Through	637	198	0	0
Right	86	97	116	41
Total	851	319	203	66

Major Street Direction

x North/South
 East/West

Intersection Geometry

Number of Approach Lanes for Minor Street 1
 Total Approaches 4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle) 210.3
 Approach with Worst Case Delay EB
 Total Vehicles on Approach 203

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Served (vph)
EP_PM Residential	11.9	203	1,439
Limiting Value	4	100	800
Condition Satisfied?	Met	Met	Met
Warrant Met	<u>YES</u>		

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Major Street Argyle Ave
 Minor Street Alley Driveway

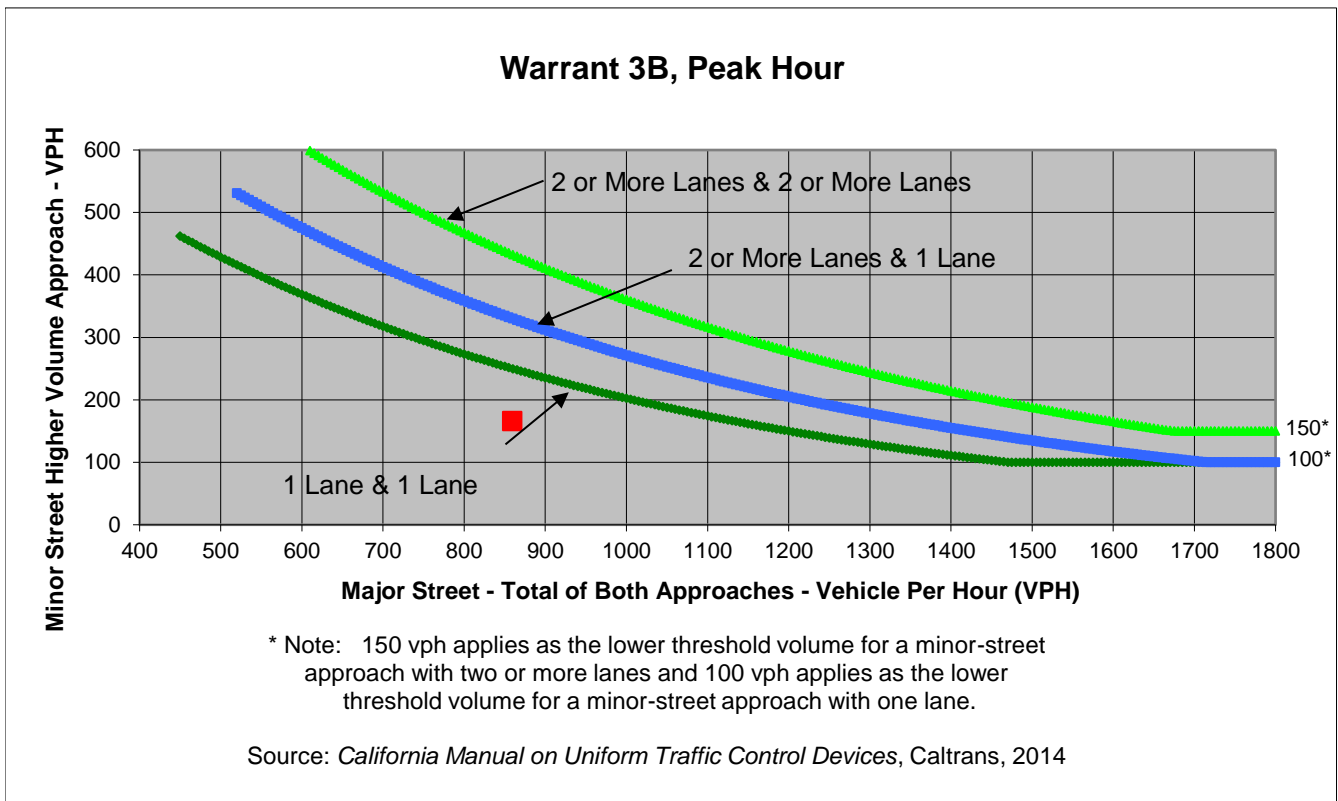
Project Hollywood Center
 Scenario EP_AM Hotel
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	89	29	66	20
Through	245	340	0	0
Right	62	94	100	31
Total	396	463	166	51

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	859	166	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario EP_AM Hotel
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	89	29	66	20
Through	245	340	0	0
Right	62	94	100	31
Total	396	463	166	51

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	27.9
Approach with Worst Case Delay	EB
Total Vehicles on Approach	166

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Served (vph)
EP_AM Hotel	1.3	166	1,076
Limiting Value	4	100	800
Condition Satisfied?	Not Met	Met	Met
Warrant Met	<u>NO</u>		

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Major Street Argyle Ave
 Minor Street Alley Driveway

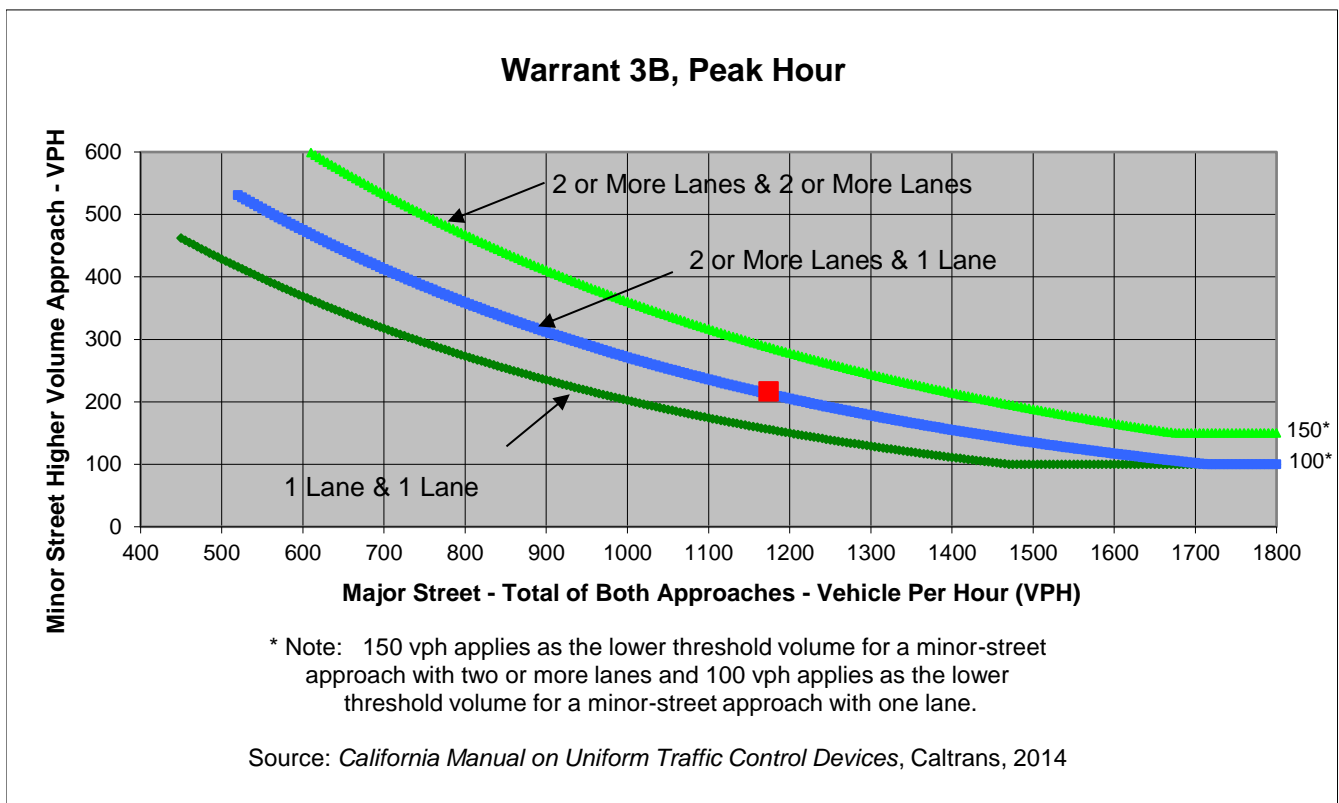
Project Hollywood Center
 Scenario EP_PM Hotel
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	131	24	92	25
Through	637	198	0	0
Right	86	98	125	41
Total	854	320	217	66

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	<u>YES</u>
Traffic Volume (VPH) *	1,174	217	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario EP_PM Hotel
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	131	24	92	25
Through	637	198	0	0
Right	86	98	125	41
Total	854	320	217	66

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	243.6
Approach with Worst Case Delay	EB
Total Vehicles on Approach	217

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Served (vph)
EP_PM Hotel	14.7	217	1,457
Limiting Value	4	100	800
Condition Satisfied?	Met	Met	Met
Warrant Met	<u>YES</u>		

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Major Street Argyle Ave
 Minor Street Alley Driveway

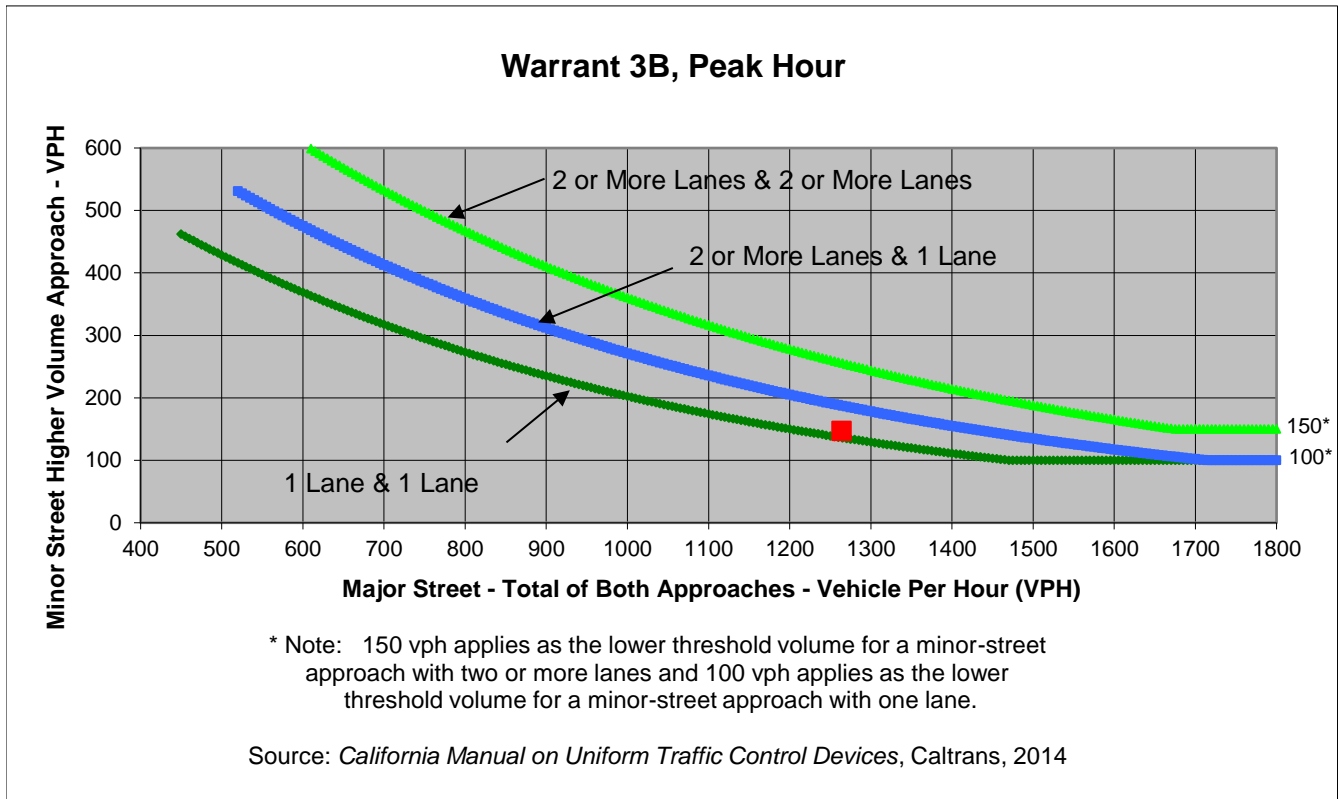
Project Hollywood Center
 Scenario CP2027_AM Residential
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	71	30	59	21
Through	509	506	0	0
Right	64	84	88	32
Total	644	620	147	53

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,264	147	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.

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Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario CP2027_AM Residential
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	71	30	59	21
Through	509	506	0	0
Right	64	84	88	32
Total	644	620	147	53

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	95.5
Approach with Worst Case Delay	EB
Total Vehicles on Approach	147

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Served (vph)
CP2027_AM Residential	3.9	147	1,464
Limiting Value	4	100	800
Condition Satisfied?	Not Met	Met	Met
Warrant Met	<u>NO</u>		

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Major Street Argyle Ave
 Minor Street Alley Driveway

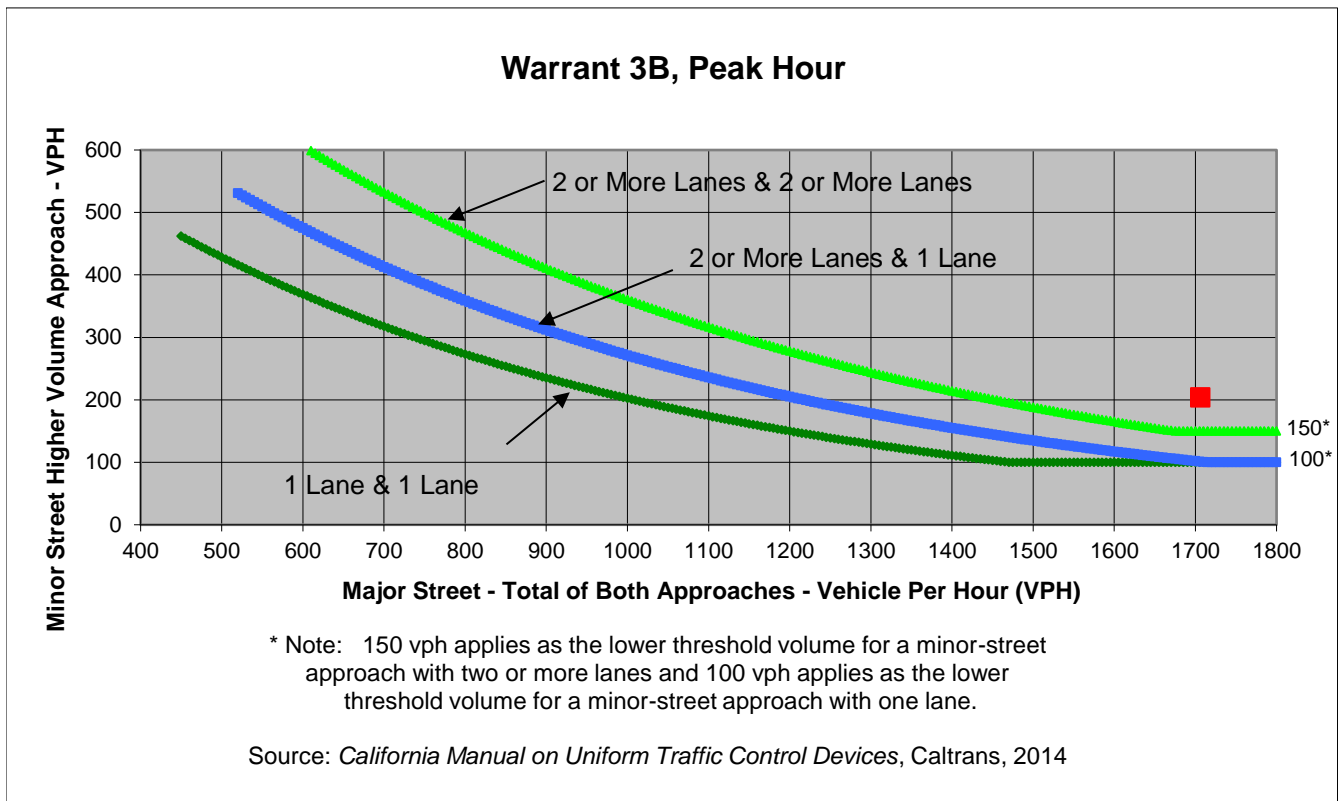
Project Hollywood Center
 Scenario CP2027_PM Residential
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	128	25	88	26
Through	1,021	346	0	0
Right	89	97	116	42
Total	1,238	468	204	68

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	1,706	204	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario CP2027_PM Residential
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	128	25	88	26
Through	1,021	346	0	0
Right	89	97	116	42
Total	1,238	468	204	68

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	1355.4
Approach with Worst Case Delay	EB
Total Vehicles on Approach	204

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Served (vph)
CP2027_PM Residential	76.8	204	1,978
Limiting Value	4	100	800
Condition Satisfied?	Met	Met	Met
Warrant Met	<u>YES</u>		

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Major Street Argyle Ave
 Minor Street Alley Driveway

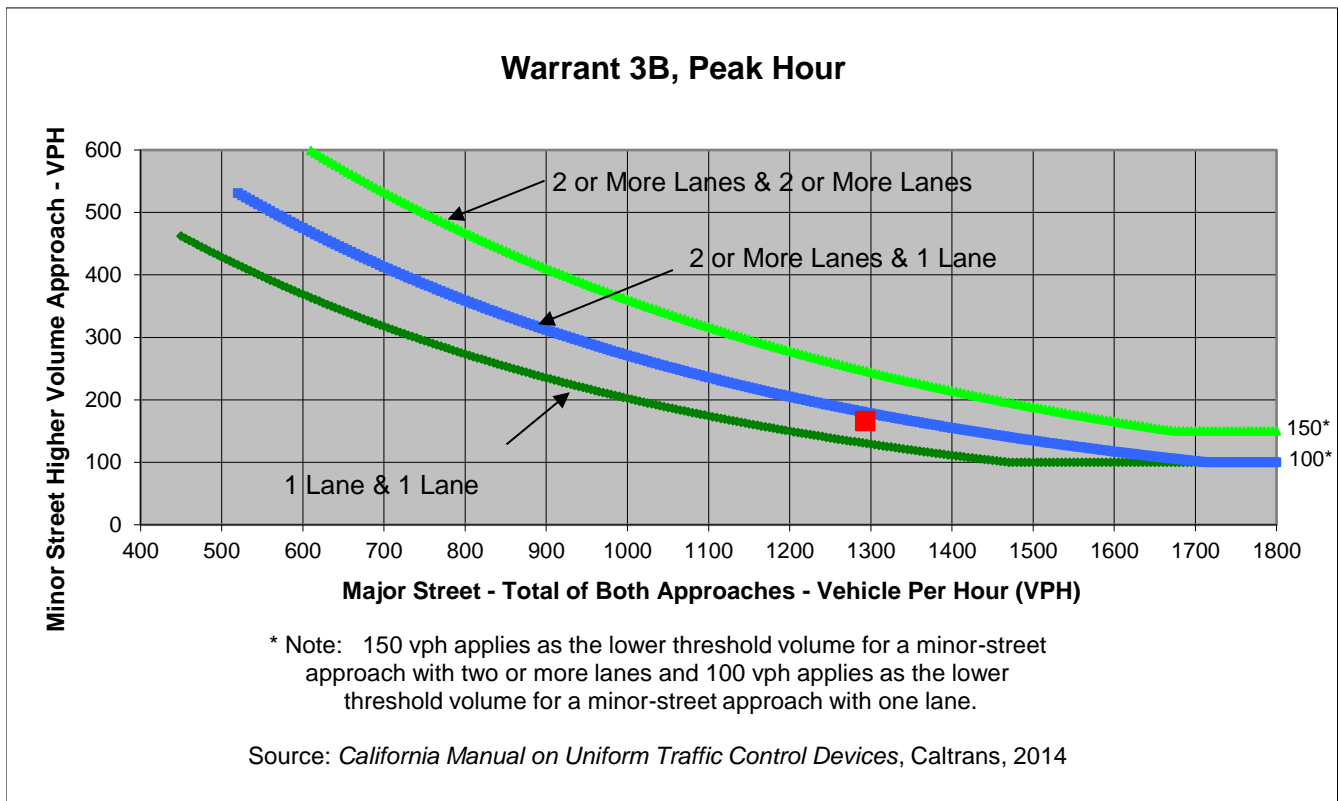
Project Hollywood Center
 Scenario CP2027_AM Hotel
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	89	30	66	21
Through	509	506	0	0
Right	64	95	100	32
Total	662	631	166	53

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,293	166	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario CP2027_AM Hotel
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	89	30	66	21
Through	509	506	0	0
Right	64	95	100	32
Total	662	631	166	53

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	153.6
Approach with Worst Case Delay	EB
Total Vehicles on Approach	166

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
CP2027_AM Hotel	7.1	166	1,512
Limiting Value	4	100	800
Condition Satisfied?	Met	Met	Met
Warrant Met	<u>YES</u>		



Major Street Argyle Ave
 Minor Street Alley Driveway

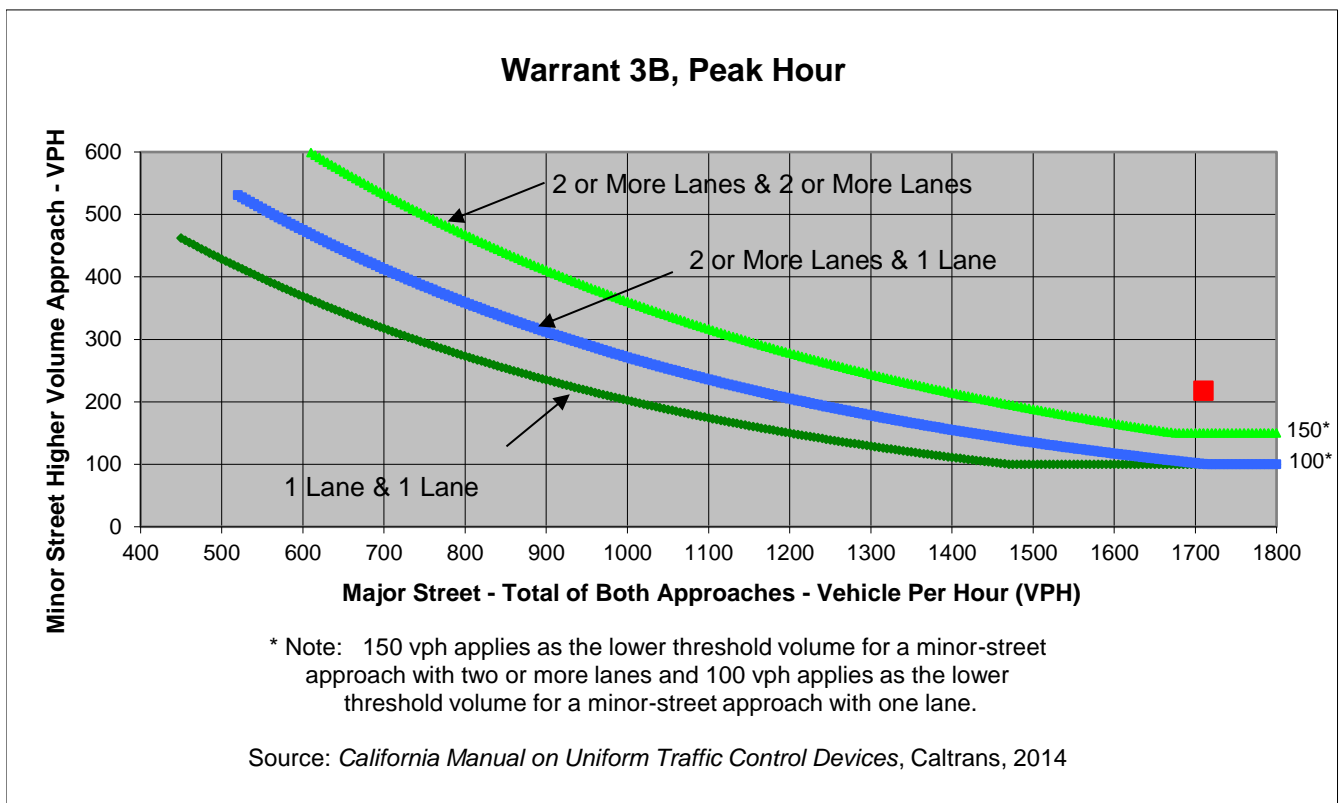
Project Hollywood Center
 Scenario CP2027_PM Hotel
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	131	25	93	26
Through	1,021	346	0	0
Right	89	98	125	42
Total	1,241	469	218	68

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	1,710	218	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario CP2027_PM Hotel
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	131	25	93	26
Through	1,021	346	0	0
Right	89	98	125	42
Total	1,241	469	218	68

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	1468.2
Approach with Worst Case Delay	EB
Total Vehicles on Approach	218

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
CP2027_PM Hotel	88.9	218	1,996
Limiting Value	4	100	800
Condition Satisfied?	Met	Met	Met
Warrant Met	<u>YES</u>		

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Major Street Argyle Ave
 Minor Street Alley Driveway

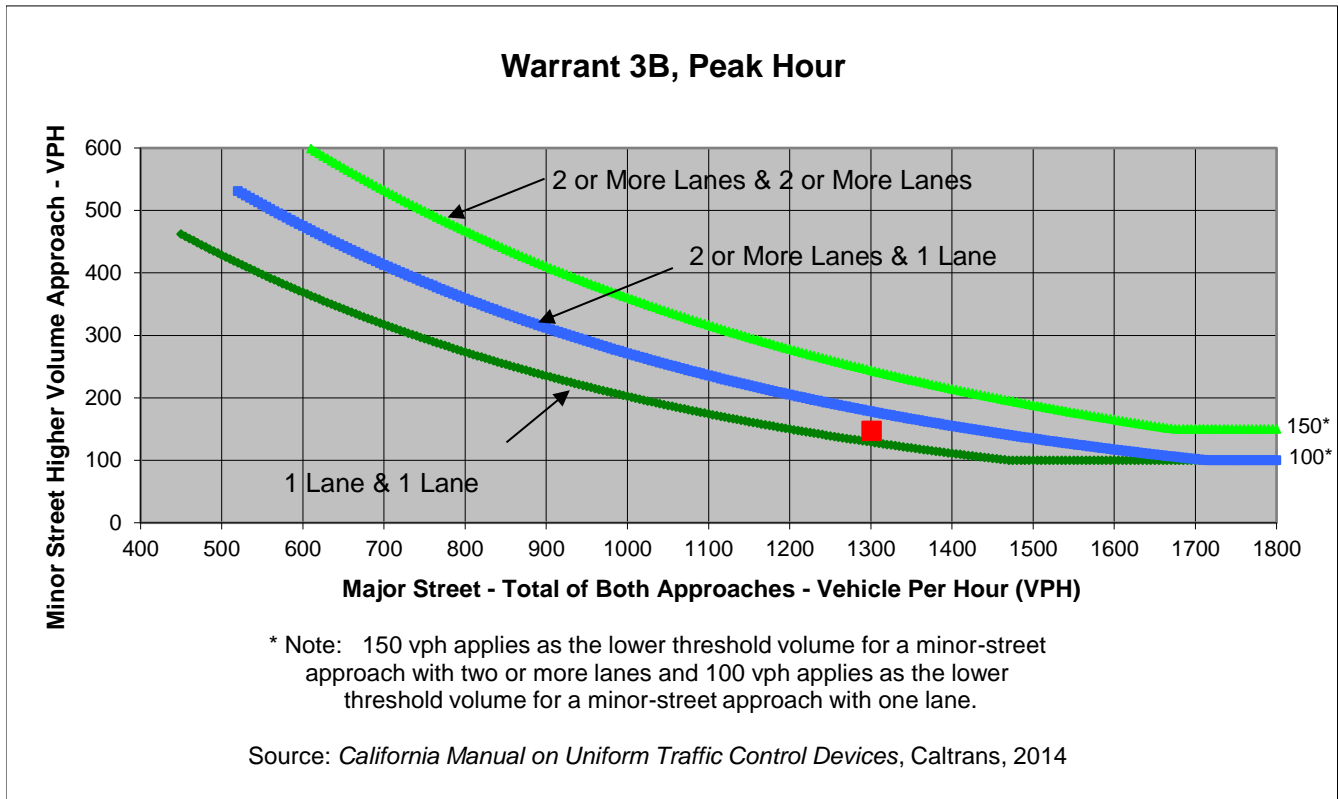
Project Hollywood Center
 Scenario CP2040_AM Residential
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	71	32	59	22
Through	522	524	0	0
Right	67	85	88	34
Total	660	641	147	56

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,301	147	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario CP2040_AM Residential
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	71	32	59	22
Through	522	524	0	0
Right	67	85	88	34
Total	660	641	147	56

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	113.7
Approach with Worst Case Delay	EB
Total Vehicles on Approach	147

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Served (vph)
CP2040_AM Residential	4.6	147	1,504
Limiting Value	4	100	800
Condition Satisfied?	Met	Met	Met
Warrant Met	<u>YES</u>		



Major Street Argyle Ave
 Minor Street Alley Driveway

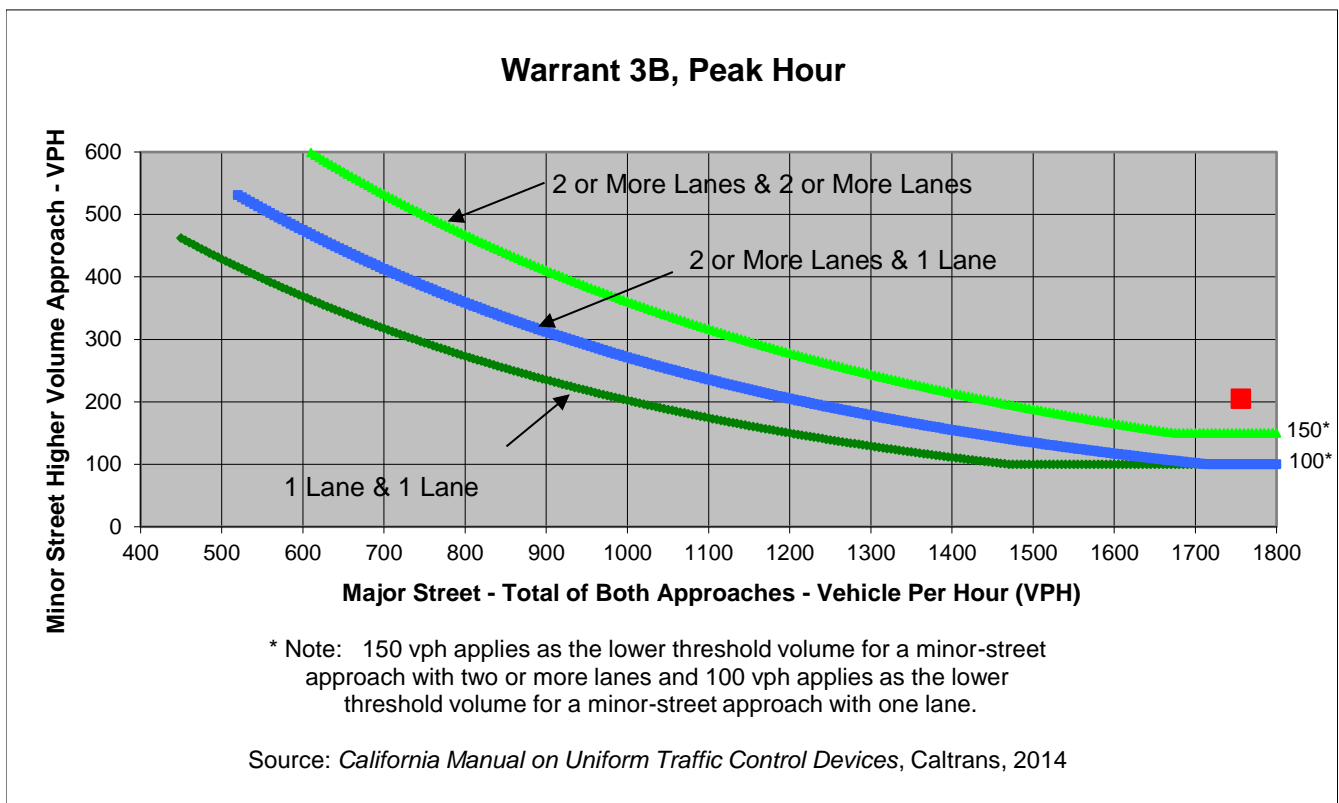
Project Hollywood Center
 Scenario CP2040_PM Residential
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	129	26	88	27
Through	1,054	356	0	0
Right	94	97	117	45
Total	1,277	479	205	72

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	1,756	205	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario CP2040_PM Residential
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	129	26	88	27
Through	1,054	356	0	0
Right	94	97	117	45
Total	1,277	479	205	72

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	1561.6
Approach with Worst Case Delay	EB
Total Vehicles on Approach	205

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Served (vph)
CP2040_PM Residential	88.9	205	2,033
Limiting Value	4	100	800
Condition Satisfied?	Met	Met	Met
Warrant Met	<u>YES</u>		



Major Street Argyle Ave
 Minor Street Alley Driveway

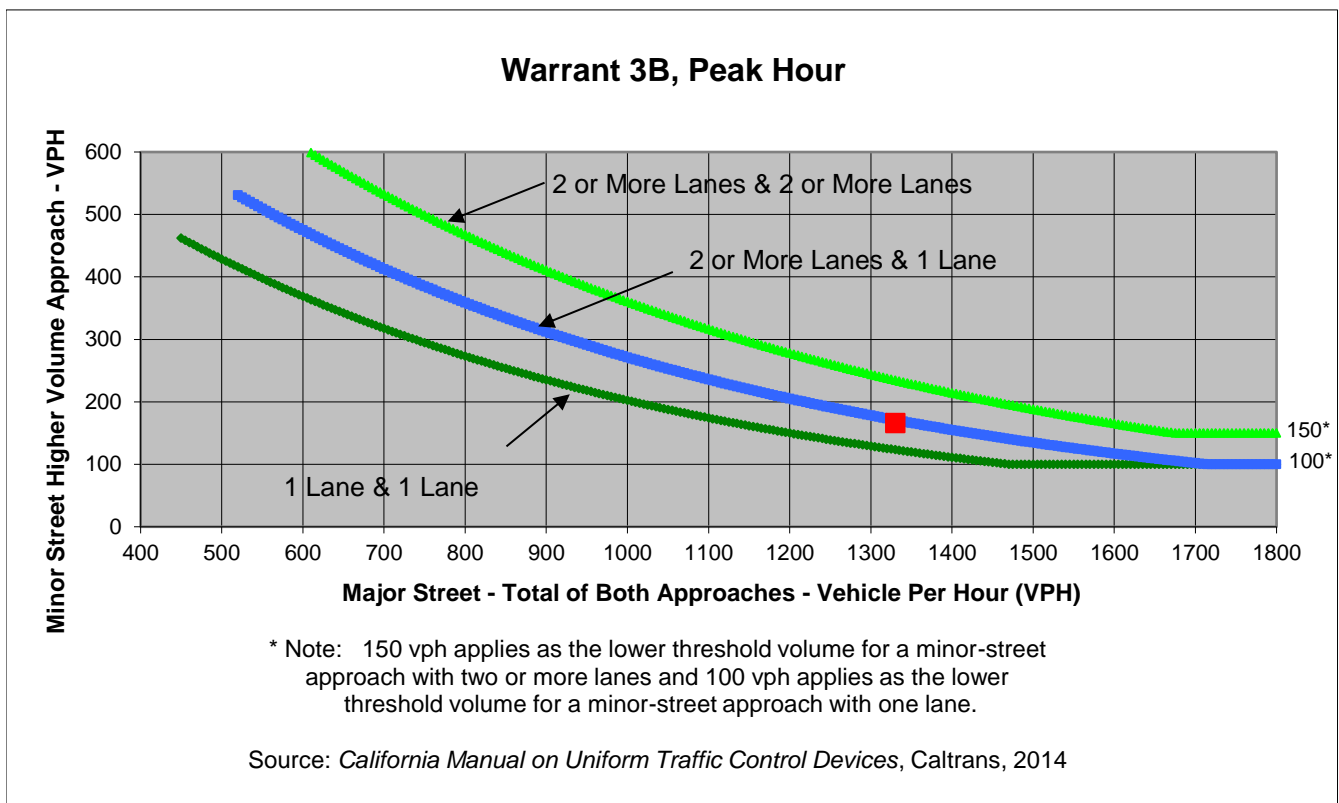
Project Hollywood Center
 Scenario CP2040_AM Hotel
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	89	32	66	22
Through	522	524	0	0
Right	67	96	100	34
Total	678	652	166	56

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,330	166	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario CP2040_AM Hotel
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	89	32	66	22
Through	522	524	0	0
Right	67	96	100	34
Total	678	652	166	56

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	181.5
Approach with Worst Case Delay	EB
Total Vehicles on Approach	166

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
CP2040_AM Hotel	8.4	166	1,552
Limiting Value	4	100	800
Condition Satisfied?	Met	Met	Met
Warrant Met	<u>YES</u>		

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Major Street Argyle Ave
 Minor Street Alley Driveway

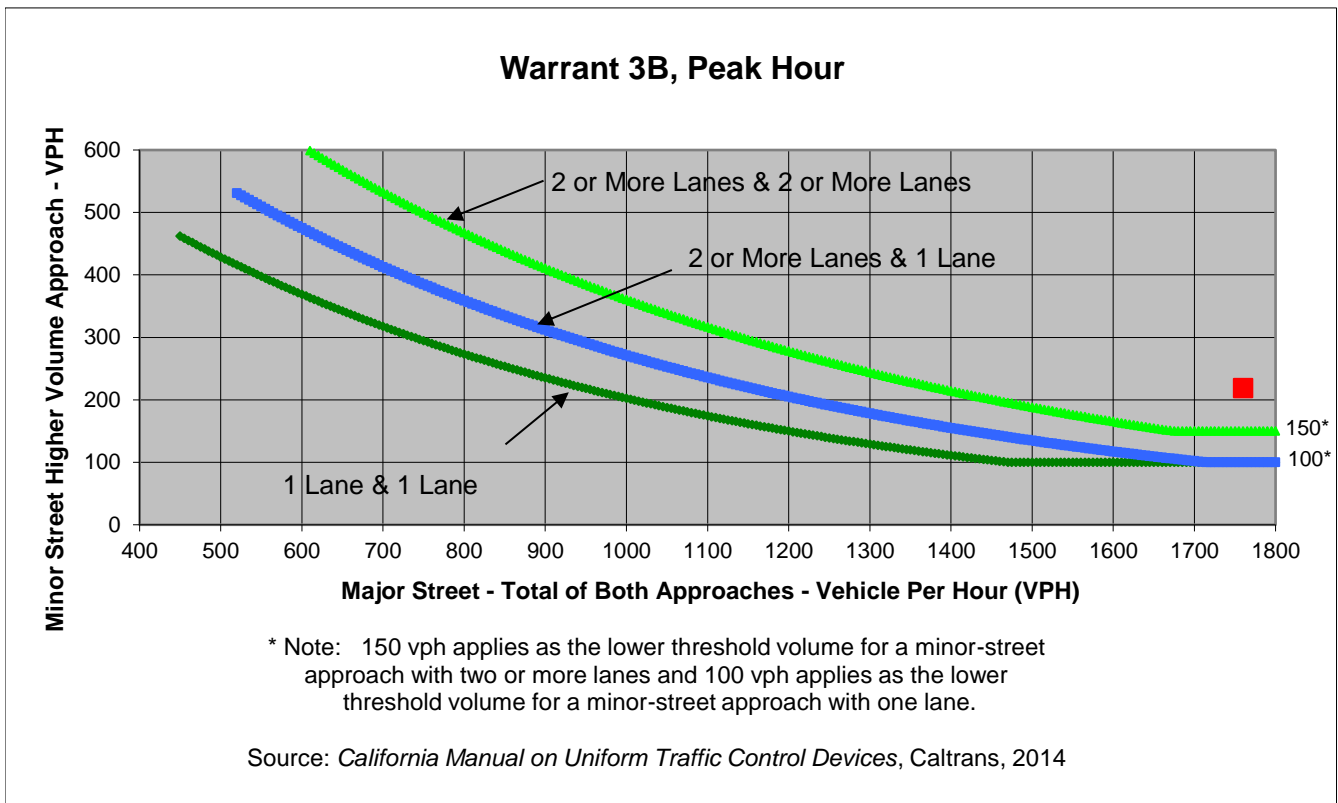
Project Hollywood Center
 Scenario CP2040_PM Hotel
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	132	26	93	27
Through	1,054	356	0	0
Right	94	98	126	45
Total	1,280	480	219	72

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Argyle Ave	Alley Driveway	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	1,760	219	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.

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Major Street Argyle Ave
 Minor Street Alley Driveway

Project Hollywood Center
 Scenario CP2040_PM Hotel
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	132	26	93	27
Through	1,054	356	0	0
Right	94	98	126	45
Total	1,280	480	219	72

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	1768.4
Approach with Worst Case Delay	EB
Total Vehicles on Approach	219

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
CP2040_PM Hotel	107.6	219	2,051
Limiting Value	4	100	800
Condition Satisfied?	Met	Met	Met
Warrant Met	<u>YES</u>		