

Table 4
Roadway Level of Service (Existing)
AM/PM Peak Hours

	<i>LOS</i>	<i>v/c ratio</i>
CR 552 between		
Laurel Street and Route 77	B/C	0.119/0.200
Route 77 and Bank Street	B-C/C	0.167/0.271
Bank Street and Walnut Street	C/C	0.190/0.292
Walnut Street to East Avenue	C/C	0.200/0.302
East Avenue and Manheim Avenue	C/C	0.188/0.273
Manheim Avenue and Spring Street	C/C	0.225/0.306
Spring Street and Burlington Avenue	C/C	0.227/0.283
Burlington Avenue and Lebanon Avenue	C/C	0.215/0.302
Lebanon Avenue and S. Woodruff Avenue	B/C	0.133/0.196
S. Woodruff Avenue and East Avenue	C/C	0.190/0.267
East Avenue and Rogers Avenue	C/C	0.233/0.290
Rogers Avenue and Sugarman Avenue	C/C	0.279/0.317
Sugarman Avenue and Nabb Avenue	C/D	0.287/0.369
Nabb Avenue and Carmel Road	D/D	0.410/0.404
Carmel Road and Kenyon Avenue	C/D	0.298/0.429
Kenyon Avenue and Jessie's Bridge Road	C/D	0.310/0.437
Jessie's Bridge Road and Route 55	C-D/D	0.329/0.450
Route 55 and Orchard Road	D/D	0.385/0.488
Orchard Road and Delsea Drive	C-D/D	0.323/0.419
Delsea Drive and the Boulevards	C/D	0.271/0.344
The Boulevards and Main Road	C/C	0.254/0.302
Orchard Road between		
CR 552 and Garrison Road	B/B-C	0.142/0.169
Garrison Road and Elm Street	B/B-C	0.148/0.169
Elm Street and Walnut Avenue	B/B	0.132/0.153
Walnut Avenue and Chestnut Avenue	B/B	0.134/0.165

Table 5
LOS - Signalized Intersections
AM/PM Peak Hours

	<i>Delay</i>	<i>v/c ratio</i>	<i>LOS</i>
CR 552 and Laurel Street	16.1/15.4	0.26/0.43	B/B
CR 552 and Route 77	16.4/20.0	0.46/0.63	B/B
CR 552 and Manheim Avenue	15.2/16.2	0.39/0.47	B/B
CR 552 and North Burlington Avenue	15.4/17.7	0.38/0.54	B/B
CR 552 and Nabb Ave./Morton Ave.	10.7/11.6	0.43/0.49	B/B
CR 552 and Orchard Road/College Drive	25.9/38.5	0.72/0.87	C/D
CR 552 and Route 47	34.0/58.3	0.75/0.89	C/E
CR 552 and Main Road	21.2/25.6	0.64/0.81	C/C
Orchard Road and Chestnut Road	15.8/16.5	0.32/0.40	B/B

Table 6		
LOS – Unsignalized Intersections		
AM/PM Peak Hours		
	Delay	LOS
CR 552 at Bank Street SB Approach	12.7/21.4	B/C
Walnut Street SB Approach	15.1/22.2	C/C
NB Approach	12.9/19.1	B/C
East Avenue NB Approach	13.0/17.8	B/C
Spring Street SB Approach	12.3/11.9	B/B
Irving Avenue WB Approach	12.2/14.9	B/B
South Woodruff Avenue NB Approach	16.1/21.7	C/C
SB Approach	19.4/24.6	C/C
East Avenue NB Approach	10.5/13.5	B/B
Rogers Avenue SB Approach	16.6/16.3	C/C
Sugarman Avenue NB Approach	11.6/13.5	B/B
Carmel Road NB Left Turn	43.6/46.0	E/E
NB Right Turn	14.2/11.6	B/B
Kenyon Avenue SB Approach	17.4/24.0	C/C
Jessie's Bridge Road SB Approach	18.2/29.6	C/D

CR 552 at		
Route 55 SB off-ramp	22.2/26.2	C/D
"NB" Left Turn	18.1/15.4	C/C
"NB" Right Turn		
Route 55 NB off-ramp		
NB Left Turn	- /45.7	- /E
SB Right Turn	- /14.6	- /B
Southwest Boulevard		
NB Approach	13.0/26.4	B/D
SB Approach	11.8/36.5	B/E
EB Approach	16.9/>60	C/F
WB Approach	16.5/>60	C/F
Southeast Boulevard		
NB Approach	10.0/12.3	A/B
SB Approach	9.4/11.5	A/B
EB Approach	11.7/21.4	B/C
WB Approach	12.8/20.6	B/C
Orchard Road at Garrison Road		
WB Approach	10.8/10.9	B/B
Elm Street		
WB Approach	12.4/12.8	B/B
EB Approach	11.1/11.8	B/B
Walnut Avenue		
WB Approach	11.9/12.5	B/B
EB Approach	11.8/12.2	B/B

Table 7
Roadway Level of Service
2025 Design Peak Hour

	<i>LOS</i>	<i>v/c ratio</i>
CR 552 between		
Laurel Street and Route 77	C	0.298
Route 77 and Bank Street	D	0.421
Bank Street and Walnut Street	D	0.440
Walnut Street to East Avenue	D	0.454
East Avenue and Manheim Avenue	D	0.435
Manheim Avenue and Spring Street	D	0.475
Spring Street and Burlington Avenue	D	0.485
Burlington Avenue and Lebanon Avenue	D	0.508
Lebanon Avenue and S. Woodruff Avenue	D	0.367
S. Woodruff Avenue and East Avenue	D	0.494
East Avenue and Rogers Avenue	D-E	0.554
Rogers Avenue and Sugarman Avenue	E	0.588
Sugarman Avenue and Nabb Avenue	E	0.665
Nabb Avenue and Carmel Road	E	0.815
Carmel Road and Kenyon Avenue	E	0.827
Kenyon Avenue and Jessie's Bridge Road	E	0.848
Jessie's Bridge Road and Route 55	E	0.888
Route 55 and Orchard Road	F	1.098
Orchard Road and Delsea Drive	F	1.073
Delsea Drive and the Boulevards	E	0.925
The Boulevards and Main Road	E	0.750
Orchard Road between		
CR 552 and Garrison Road	D	0.427
Garrison Road and Elm Street	D	0.348
Elm Street and Walnut Avenue	D	0.318
Walnut Avenue and Chestnut Avenue	D	0.320

Table 8
Intersection Improvement Summary

<i>Intersection</i>	<i>Improvements</i>	<i>Implementation Schedule</i>	<i>Priority</i>
CR 552 at			
Laurel Street	None needed	-	-
Route 77	Provide WB lead – NJDOT approval needed	Long-term	Low
Bank Street	None applicable	-	-
Walnut Avenue	None applicable	-	-
East Avenue	Potential signalization – further evaluation needed	Long-term	Low
Manheim Avenue	None needed	-	-
Spring Street	None needed	-	-
North Burlington Avenue	Evaluate need to provide left-turns lanes on CR 552	Long-term	Low
Lebanon Road	Install 24" white stop bar	Short-term	High
	Realign intersection, creating CR 552 as throughput	Long-term	Medium
S. Woodruff Avenue	Evaluate sight distance and implement necessary improvements	Short-term	High
	Install Rumble Strips	Short-term	High
	Consider widening S. Woodruff Avenue at the intersection	Short-term	Medium
	Evaluate lighting conditions	Short-term	High
	Evaluate traffic signal warrants including 12-hour volume count	Short-term	Medium
	Provide left-turn lanes along CR 552	Long-term	Low
East Avenue	Potential signalization	Long-term	Low
	Provide left-turn lanes along CR 552	Long-term	Low

Rogers Avenue	Replace W1-7 sign	Short-term	High
Sugarman Avenue	Potential signalization	Long-term	Low
	Provide left-turn lanes along CR 552	Long-term	Low
Nabb Avenue/Morton Avenue	Increase radii at intersection	Short-term	Medium
	Provide pedestrian signal indications	Short-term	Medium
	Widen intersection, providing left-turn and right-turn lanes	Long-term	Low
	Provide left-turn lanes along CR 552	Long-term	Low
Carmel Avenue	Potential signalization with center left-turn lane along CR 552	Long-term	Low
Kenyon Avenue	None applicable	-	-
Jessie's Bridge Road	Evaluate sight distance via profiles	Short-term	Medium
Route 55 Interchange	Potential signalization at both ramp interchanges	Long-term	Low
	Provide for four-lane section over bridge	Long-term	Low
Orchard Road/College Drive	Evaluate offset of DYL at Orchard Road/College Drive and transition	Short-term	High
	Provide additional through lane along CR 552 with right-turn lanes	Long-term	Medium
	Provide exclusive left-, through, and right-turn lanes along Orchard/College	Long-term	Low
	Consider allowing left-turns from the through lane on College	Long-term	Medium
Route 47	Coordinate with NJDOT regarding signal timing changes	Short-term	High
	Coordinate with NJDOT for turning restrictions at nearby accesses	Short-term	High
	Provide 5-lane approach on CR 552 and 4 lane approaches on Route 47	Long-term	Medium
The Boulevards	Replace existing flasher to meet MUTCD	Short-term	High
	Install traffic signal and lower grade across railroad tracks	Long-term	Medium
	Provide left, 2 through, and right-turn lanes along CR 552 approaches	Long-term	Medium
Main Road	Provide five-lane section on CR 552	Long-term	Medium

Orchard Road at			
Garrison Avenue	Install W1-7 signs	Short-term	Medium
Walnut Street	None needed – Continual evaluation suggested	-	-
Elm Avenue	None needed – Continual evaluation suggested	-	-
Chestnut Road	Improve radii for school buses	Short-term	Medium

Table 9**Intersection Improvement Ranking**

<i>Priority</i>	<i>Intersection</i>	<i>Improvements</i>	<i>Ranking</i>
High	Orchard Road/College Drive	Evaluate offset of DYL at Orchard Road/College Drive and transition length	1
	Lebanon Road	Install 24" white stop bar	2
	S. Woodruff Avenue	Install Rumble Strips	3
		Evaluate sight distance and implement necessary improvements	4
		Evaluate lighting conditions	5
	Route 47	Coordinate with NJDOT regarding signal timing changes	6
		Coordinate with NJDOT for turning restrictions at nearby accesses	7
	Rogers Avenue	Replace W1-7 sign	8
The Boulevards	Replace existing flasher to meet MUTCD	9	
Medium	S. Woodruff Avenue	Evaluate traffic signal warrants including 12-hour volume count	1
	Garrison Avenue	Install W1-7 signs	2
	Nabb Avenue/Morton Avenue	Provide pedestrian signal indications	3
	Orchard Road/College Drive	Provide additional through lane along CR 552	4
	Nabb Avenue/Morton Avenue	Increase radii at intersection	5
	Chestnut Road	Improve radii for school buses	6
	S. Woodruff Avenue	Consider widening S. Woodruff Avenue at the intersection	7
	Lebanon Road	Realign intersection, creating CR 552 as throughput	8
	Orchard Road/College Drive	Consider allowing left-turns from the through lane on College Drive	9
	Jessie's Bridge Road	Evaluate sight distance via profiles	10

	The Boulevards	Install traffic signal and lower grade across railroad tracks	11
		Provide left, 2 through, and right-turn lanes along CR 552 approaches	12
	Route 47	Provide 5-lane approach on CR 552 and 4 lane approaches on Route 47	13
	Main Road	Provide five-lane section on CR 552	14
Low	S. Woodruff Avenue	Provide left-turn lanes along CR 552	1
	Route 55 Interchange	Potential signalization at both ramp interchanges	2
		Provide for four-lane section over bridge	3
	Orchard Road/College Drive	Provide exclusive left-, through, and right-turn lanes along Orchard	4
		Road/College Drive	
	Nabb Avenue/Morton Avenue	Provide left-turn lanes along CR 552	5
		Widen intersection, providing left-turn and right-turn lanes	6
	North Burlington Avenue	Evaluate need to provide left-turns lanes on CR 552	7
	East Avenue	Provide left-turn lanes along CR 552	8
	Sugarman Avenue	Provide left-turn lanes along CR 552	9
	Carmel Avenue	Potential signalization with center left-turn lane along CR 552	10
	Route 77	Provide WB lead – NJDOT approval needed	11
	East Avenue	Potential signalization	12
Sugarman Avenue	Potential signalization	13	
East Avenue	Potential signalization – further evaluation needed	14	

**Table A-1
Development Growth**

<u>Deerfield Township – Carmel Area</u>	Size	PM Trips ¹
Single Family Residential	530 homes	500
General Office	175,000 sf	275
General Retail	200,000 sf	750
Industrial	600,000 sf	700
<u>City of Millville</u> – between Municipal boundary and Route 49		
Single Family Residential	250 homes	245
<u>City of Vineland</u>		
SJ Hospital	470,000 sf	660
SPCA Site	300,000 sf	705
Hospital Vacant Parcel (100± acres)	1,000,000 sf	1,715
Cumberland County College (Conference Center)	22,000 sf	330
Rehabilitation Hospital	60 beds	20
Medical Office	44,000 sf	160
Various Vacant Parcels		
- Medical Office	50,000 sf	275
- Residential	400 homes	405

¹ Total generated new trips – does not reflect the actual number of additional trips along the Corridors