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**ROUTE 34:
BELMAR BOULEVARD TO GARDEN
STATE PARKWAY**

Land Use and Traffic Study

TOWNSHIP OF WALL

MONMOUTH COUNTY, NEW JERSEY

JULY 2005

Prepared For:

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TABLE OF CONTENTS

INTRODUCTION.....	1
STUDY AREA DESCRIPTION.....	1
Zoning	1
Existing Land Use	2
BUILD-OUT POTENTIAL OF AREA	2
Short-Term Analysis.....	3
Long-Term Analysis	6
Findings.....	8
TRAFFIC IMPACT STUDY	8
Introduction.....	8
Scope of Traffic Study	9
Existing Roadway Conditions.....	10
Existing Capacity	12
Existing Operating Capacity.....	12
Traffic Projections	14
2014 Future Operating Capacity.....	15
2024 Future Operating Capacity.....	18
Arterial Travel Time Analyses	19
Traffic Analysis Summary	20
Traffic Analysis Conclusions	21
STUDY AREA RECOMMENDATIONS.....	22

List of Figures

Figure 1	Existing Land Use and Zoning
Figure 2	Existing Volumes
Figure 3	2014 No Build Volumes
Figure 4	2014 Build Volumes
Figure 5	2024 No Build Volumes
Figure 6	2024 Build Volumes

List of Appendices

Appendix A	List of Study Area Property Owners
Appendix B	Capacity Analyses Worksheets
Appendix C	Arterial Travel Time Analyses Worksheets
Appendix D	Straight Line Diagrams
Appendix E	Current Traffic Signal Directives

INTRODUCTION

Wall Township is a suburban municipality in Monmouth County, New Jersey, that is nearing its full development potential. The Township has been a desirable growth location mainly due to its location along the Garden State Parkway (GSP), Interstate Route 195 and State Routes 34 and 35, as well as its proximity to the sandy beaches of the New Jersey coastline. Route 35 has been heavily developed as a retail and small office corridor for the region. The Route 34 corridor north of the Garden State Parkway and I-195 has not yet been developed to the extent of the southern portion. It is, however, coming under increasing development pressure due to its attractive access to regional highways and the presence of Monmouth County Executive Airport. Monmouth County's planned purchase of the airport will most likely accelerate development pressures within the corridor.

The Township received a \$25,000 NJ Department of Community Affairs Smart Growth Grant for FY 2003 to help prepare Phase I of a plan that addresses growth and traffic issues in the Route 34 corridor in the vicinity of the airport. Phase I involves identification of issues and trends and Phase II, to be funded under a separate grant, will involve the creation of new design and other standards tailored to fit the area.

STUDY AREA DESCRIPTION

The boundary of the study area is Belmar Boulevard to the north, the Howell Township border to the west, I-195 to the south, and slightly east of Route 34. Monmouth Executive Airport is the center of the area.

Zoning

The largest number of parcels in the study area (62.2 percent) are zoned General Industrial (GI) (see Existing Land Use and Zoning Map). Uses permitted in the GI Zone include agriculture, utilities, manufacturing, building construction and special trade contractor, and wholesale trade. The next largest number of parcels, (22.2 percent), are zoned Office Research. Use permitted in the OR Zone include agriculture, wholesale trade, professional / scientific / technical services and health services. The remaining 17 percent of the study area includes the Airport Industrial (AI), Commercial Recreation (CR), Office Park (OP), Public Open Space (POS), Residential and Rural Residential Zones. The Airport Hazard Zone covers parcels that are within close proximity to the airport.

Current Zoning Within Study Area

	Number	Percentage
Airport Industrial	3	1.7
Commercial Recreation (CR-40)	4	2.2
General Industrial (GI-2, GI-5, GI-10)	112	62.2
Office Park (OP-10, OP-2)	4	2.2
Office Research (OR-10, OR-2)	40	22.2
Public Open Space (POS)	14	7.8
Residential (R-20, R-60)	3	1.7
Rural Residential (RR)	1	0.6
Total	180	100.0

Existing Land Use

The study area is centered on the Monmouth Executive Airport, which is located west of Route 34, between Belmar Boulevard and West Hurley Pond Road (see Existing Land Use and Zoning Map). This airport is privately owned and operated, and has been since its inception over 50 years ago. Both the Township and the County have attempted to purchase the airport property in the past. The airport is surrounded by a miscellany of uses, generally industrial in nature, however including a horse farm on Belmar Boulevard, and recreational fields on West Hurley Pond Road. The land to the west of the airport, and to the west of Carmerville Road on the Howell Township border is significantly constrained by the presence of wetlands.

An industrial cul-de-sac development is located to the east of the airport. Commercial and industrial uses line Route 34 from Hurley Pond Road to Belmar Avenue, and a piece of land on Route 34 northbound, south of Broad Street, is owned as municipal open space. In the same area, a large parcel received development approval as the Allaire Corporate Park for a mainly office use which surrounds existing commercial and industrial uses. An executive golf course and driving range are located on the northeastern corner of West Hurley Pond Road and Route 34.

The McDowell stone quarry is located south of West Hurley Pond Road. There is a cluster of residential uses located to the west of the stone quarry on Carmerville Road, and the Wall Speedway use to the east of the quarry along Route 34 southbound. Continuing west of the residential cluster, lie large swaths of public open space and generally vacant land. South of West Hurley Pond Road, along Route 34, the quarry, vacant land, and commercial and public/utilities uses line the corridor. See Appendix A for a list of properties in the study area and ownership information.

BUILD-OUT POTENTIAL OF AREA

In order to determine the potential land development opportunities and capacity of the study area, a build-out analysis of the area was performed under current zoning parameters. Within the study area, we considered lands that are susceptible to change, that is they are either vacant, underdeveloped, or developed with improvements that are not significant (golf driving range) or deteriorating both physically and in value. On lands that are susceptible to change, floor-area-ratios that are typical to the Township of Wall were applied based on the permitted uses in the

zoning district (office or industrial) to estimated non-wetland acreages. Where a zone permits both office and industrial, a range was estimated for both use types. Lots with 100 percent wetlands coverage were omitted from the analysis, and contiguous lots with the same owner were combined.

Parcels were grouped into those we believe will be developed in the short term (the next 10 years), and in the long term (beyond 10 years). Short-term parcels are those that either have development approvals or are vacant and/or in prime locations. Long-term parcels are those that have poor access to roadways or have active uses on them, such as a golf range, mining operation, etc.

Short-Term Analysis

For the purposes of analyzing potential impact of development on the Route 34 corridor, it is estimated that in the short term (2004 to 2014), that 1,113,989 to 1,916,407 square feet of office and 186,118 to 1,058,313 square feet of industrial space potentially could be constructed in the study area. Of the 20 parcels analyzed for short-term development, 9 have development approval and one has submitted a concept plan to the Planning Board.

For those sites that do not have development approval, both office and industrial square-footage potentials were generated, and for the purposes of the traffic impact analysis, the more conservative (greater traffic generators) were utilized.

In a Dominant Office scenario where more office than industrial space would be built, development potential is estimated at 1,916,427 square feet of office and 186,118 square feet of industrial space. In the Dominant Industrial Scenario, where industrial space would dominate, 1,113,989 square feet of office and 1,058,313 of industrial would be built.

Summary of Short-Term Development Potential of Study Area

	Scenario One: Dominant Office		Scenario Two: Dominant Industrial	
	SF Office	SF Industrial	SF Office	SF Industrial
Projects with Development Approval or Concept Plan	250,644	98,954	250,644	98,954
Additional Development	1,665,763	87,164	863,345	959,359
Total	1,916,427	186,118	1,113,989	1,058,313

Route 34: Belmar Boulevard to Garden State Parkway
Land Use and Traffic Study

The following list details the estimated development potential of parcels that could potentially be developed in the short-term time frame:

Parcels Susceptible to Change with Short-Term Development Potential										
<i>Block</i>	<i>Lot</i>	<i>Address</i>	<i>Owner</i>	<i>Zone</i>	<i>Existing Land Use</i>	<i>Lot Acreage</i>	<i>Wetlands (%)</i>	<i>SF Office (.23 FAR)</i>	<i>SF Industrial (.25 FAR)</i>	<i>Comments</i>
945	11	1880 Hwy 34	Fred McDowell	OR-10	farm	31.67	-	317,295	-	
945	13	4005 W Hurley Pond Rd	John D Pittenger Builder Inc	OR-10	vacant	22.96	13.0	200,132	-	
942	37, 57	1718, 1730 Hwy 34	Lab-Volt Systems Inc	OR-2, POS	vacant	103.62	-	133,904	-	has development approval/Allaire Corp. Park
942	35, 36, 38, 87	1660, 1670 Hwy 34	D & O Associates LLC	OR-2, POS airport hazard zone	vacant, public prop.	26.71	-	38,400	-	has development approval/Allaire Exec. Plaza
922	1	1801 Hwy 34	Belmar Gas	OR-10, airport hazard zone	vacant	1.92	-	2,700	-	has development approval/bank
922	2	4803 West Hurley Pond Rd	CJS Inc.	OR-10, airport hazard zone	SFR	6.31	-	64,000	-	has development approval/office
920	34	West Hurley Pond Rd	Devon	GI-2	comm.	9	-	--	18,390	has development approval
917.1	104	5042 Industrial Rd	Casuccio	GI-2, airport hazard zone	vacant	1.49	-	-	15,629	has development approval
917.1	19	1615 Hwy 34	Martelli Office Park Llc	OP-2	vacant	8.6	9.1	78,361 or	85,176	
917.1	96	1671 Hwy 34	Eugene & James W Murray	GI-2, airport hazard zone	vacant	1.61	-	16,131 or	17,533	
917	111	5041 Industrial Rd	Royal Dev.	GI-2, airport hazard zone	vacant	1.12	-	-	9,750	has development approval

Route 34: Belmar Boulevard to Garden State Parkway

Land Use and Traffic Study

Parcels Susceptible to Change with Short-Term Development Potential										
Block	Lot	Address	Owner	Zone	Existing Land Use	Lot Acreage	Wetlands (%)	SF Office (.23 FAR)	SF Industrial (.25 FAR)	Comments
917	112	5043 Industrial Rd	PJR	GI-2, airport hazard zone	vacant	1.98	-	-	23,000	has development approval
917	115	5049 Industrial Rd	Kahuna Assocs LLC	GI-2, airport hazard zone	vacant	1.17	-	-	11,325	has development approval
917	13.01	1737 State Route 34	Wall Herald Corp	A-I, airport hazard zone	ind.	8.7	-		87,164	
917	13.01	1737 State Route 34	Wall Herald Corp	OR-2, airport hazard zone	ind. and vacant	30	-	300,564	-	
917	62, 66.01	6143 Belmar Blvd	Wall Herald Corp / Ed Brown	A-I, GI-5 airport hazard zone	vacant/airport warehouse	94.6	38.4	583,493 or	634,232	
917	65	5165 Belmar Blvd	Percy S Farry	GI-5, airport hazard zone	farm	43.87	4.7	75,000 and	25,000	Concept plan submitted
917	68	5147 Belmar Blvd	Hickory Arms Inc	GI-5, airport hazard zone	vacant	24.84	50.0	124,433 or	135,254	
917	8, 9	1799 State Route 344802 W Hurley Pond Rd	Eaton Enterprises	OR-2, airport hazard zone	vacant	2.31	50.0	11,570	-	
917	14	Hwy 34	Brown	OR-2, airport hazard zone	ind.	10	0.0	100,188	-	
							TOTAL SF	1,113,989 to 1,916,407	186,118 to 1,058,313	

Land Use and Traffic Study

Long-Term Analysis

Under a long-term scenario, it is estimated that an additional 1,205,739 to 5,453,088 square feet of office and 4,678,906 to 8,205,748 square feet of industrial space could be constructed in the study area.

Summary of Long-Term Development Potential of Study Area

Scenario One: Dominant Office		Scenario Two: Dominant Industrial	
SF Office	SF Industrial	SF Office	SF Industrial
5,453,088	4,678,906	1,205,739	8,205,748

The following list details the estimated development potential of parcels that could potentially be developed in the long-term time frame:

Parcels Susceptible to Change with Long-Term Development Potential									
Block	Lot	Address	Owner	Zone	Land Use	Lot Acreage	Wetlands (%)	SF Office (.23 FAR)	SF Industrial (.25 FAR)
917	66		Wall Herald Corp	CR-40, GI-5, A-I	comm.	273.3	56.7	1,186,800 or	1,290,000
917	64	Belmar Blvd	Ed & Doris Brown	GI-5, airport hazard zone	comm.	48.78	4.7	-	506,214
917	13	West Hurley Pond Rd	Wall Herald Corp	A-I	ind. and airport	264.71	2.0	-	2,882,692
945	14, 15	4101, 4103 W Hurley Pond Rd	Pat Joyce Holding Company	CR-40	vacant, comm.	29.86	11.9	263,511	-
942	132, 79	1770 Hwy 34	Seventy-Nine Quail Ridge	OR-10, airport hazard zone	Exec. Golf	34.47	28.8	245,913	-
942	65	4130W Hurley Pond Rd	Sixty-Five Quail Ridge	OR-10, airport hazard zone	golf range	23.76	13.0	206,997	-
942	67	4150 Dunroamin Rd	John N Taylor	OR-10	farm	1	-	10,019	-

Route 34: Belmar Boulevard to Garden State Parkway

Land Use and Traffic Study

Parcels Susceptible to Change with Long-Term Development Potential										
Block	Lot	Address	Owner	Zone	Land Use	Lot Acreage	Wetlands (%)	SF Office (.23 FAR)	SF Industrial (.25 FAR)	
922	3	1803 Hwy 34	Wall Speedway Properties LLC	OR-10, airport hazard zone	commercial	47.84	-	479,299	-	
922	5	1875 Hwy 34	Fred McDowell	OR-10, GI-10, airport hazard zone	ind., farms	293.15	9.1	2,670,211 or	2,902,404	
917.1	38.01	1661 Hwy 34	New Jersey Gravel & Sand Co	GI-2, airport hazard zone	ind.	20.28	11.7	179,319 or	194,912	
917.1	38.02	Wyckoff Rd ?		GI-2, airport hazard zone	ind.	20.02	2.3	195,976 or	213,018	
917.1	44	1669 Hwy 34	1669 Route 34 LLC	GI-2, airport hazard zone	vacant/used by NJ Gravel	3	50.0	15,043 or	16,351	
917	51, 53, 55-57, 60, 67	1605, 1623 Shafto Rd, 5121, 5117, 5125 Belmar Blvd.	Lurch Family LP	GI-2	commercial and vacant	36.77	50.0	184,144 or	200,157	
								TOTAL SF	1,205,739 to 5,453,088	4,678,906 to 8,205,748

Findings

Under current zoning, the study area has tremendous development potential, a sizeable portion of which will be realized in the short-term through the construction of approved projects, and can potentially be constructed on vacant, farm and underutilized land. Long-term potential in the study area is vast and includes redevelopment of the airport runways and support areas, and lots that are currently utilized for mining operations and golf courses.

Overall Development Potential of Study Area

Term	Scenario One: Dominant Office		Scenario Two: Dominant Industrial	
	SF Office	SF Industrial	SF Office	SF Industrial
Short (0 to 10 years)	1,916,407	186,118	1,113,989	1,058,313
Long (10+ years)	5,453,088	4,678,906	1,205,739	8,205,748
Total	7,369,495	4,865,024	2,319,728	9,264,061

TRAFFIC IMPACT STUDY

Introduction

A quantitative and qualitative assessment of the corridor's capacity to accommodate existing (2004), short-term (2014) and long-term (2024) traffic was prepared. The assessment identifies capacity constraints as well as capacity enhancements necessary to balance mobility and accessibility along Route 34, with anticipated/as-zoned economic development. The premise is that, aside from background traffic growth along the Route 34 corridor, development of the zoned uses in Wall Township will generate such traffic as to require additional roadway capacity along Route 34. This study illustrates the impacts of the additional demand and is a planning tool for managing growth according to Smart Growth principles.

Existing and future roadway capacity constraints were identified, as well as necessary improvements to support future demand. The improvements, which may include geometry and/or traffic signal modifications at the various study locations along the corridor, are based on criteria for "allowable deterioration" as set forth by the New Jersey Department of Transportation in the New Jersey State Highway Access Code. Where "maximal" improvements do not meet the criteria, such indication is provided to highlight the future bottlenecks. Improvements considered in mitigating the study locations include both geometry and traffic signal optimization.

Ultimately, the goal is to establish short-term and long-term roadway infrastructure improvements that would be necessary to support projected traffic demand in the study corridor upon the development of parcels in Wall Township, as currently zoned. This report documents the methodology, analyses, findings and conclusions of our study.

Scope of Traffic Study

The study assesses the roadway capacity along Route 34 versus projected traffic volume in both the short and long term in order to identify improvements necessary to enhance mobility and accessibility. In executing this scope, the following steps were undertaken:

- A detailed field inventory was conducted to obtain existing information on roadway geometry, traffic control, location and geometry of adjacent driveways and intersections, traffic flow conditions, etc., as can be gathered without an instrument survey.
- Traffic volume recordings documented in Traffic Impact Studies for Development Applications submitted to the Wall Township Planning Board were reviewed and summarized to arrive at a base (existing) condition. The volume recordings for the weekday morning (AM) and evening (PM), and Saturday (Midday) were identified at the following intersections:
 - Route 34 and Belmar Boulevard
 - Route 34 and Airport Road
 - Route 34 and Hurley Pond Road
 - Wyckoff Road and Belmar Boulevard
- Data on planned (as-zoned) developments as well as developments recently approved by the Planning Board were obtained from the Township.
- Estimates of traffic to be generated by the as-zoned land uses were prepared based on standard trip generation rates published by the Institute of Transportation Engineers, and/or trip generation research conducted by Schoor DePalma.
- The traffic generation projections were assigned to the adjacent roadway system based upon the anticipated directional distribution as derived from existing traffic patterns and available demographic data including modal split identified from the 2000 Census data. Note that the traffic assignment was conducted for the short-term (2014) and long-term (2024) developments. Also, note that traffic assignment for planned/approved developments was replicated from the traffic studies submitted with their respective applications.

Capacity analyses of the study intersections were undertaken to identify peak hourly capacities and operating levels of service for the existing (2004) condition, short-term (2014) No Build and Build conditions, and, long-term (2024) No Build and Build conditions.

- Intersection mitigation analyses were conducted to identify the 2014 and 2024 Build operating capacities utilizing maximal geometry and optimal traffic signal timings. The primary guide in conducting the mitigation was the “allowable deterioration criteria” as set forth in the New Jersey Department of Transportation (NJDOT) Highway Access Code.
- Arterial analyses were conducted to identify travel times along the Route 34 corridor under existing (2004) and future (2014 Build and 2024 Build; with and without improvement conditions).

This report sets forth the database collected by this firm, as well as our findings with respect to the existing and future operating capacities, “with” and “without” intersection improvements.

Existing Roadway Conditions

As previously discussed, the Route 34 Corridor Study Area spans from the Garden State Parkway in the south to Belmar Boulevard (County Route 18) in the north with approximately one mile envelop east and west of Route 34. The following are the study area roadways identified within the corridor:

- Route 34 – from Hurley Pond Road to Belmar Boulevard
- Hurley Pond Road – Martins Road to approximately 3/4 miles west of Route 34
- Airport Boulevard
- Belmar Boulevard – approximately 1/2 mile east and west of Route 34

Based on the study area roadways identified, the following intersections are the study locations:

- Route 34 with Hurley Pond Road
- Route 34 with Airport Boulevard
- Route 34 with Belmar Boulevard

Description of Adjacent Roadways and Intersections

The following are descriptions of the roadways within the study area:

NJ Route 34

Route 34 is a north-south roadway under State jurisdiction and is classified as an Urban Minor Arterial. Within the study area, the roadway has a right-of-way width of 120 FT and provides two 12 FT wide travel lanes in each direction and shoulders of varying widths. A 12 FT wide grassed median separates the northbound and southbound travel lanes. A 55 MPH speed limit is posted along the roadway. Parking is restricted on both sides of the un-curbed roadway. The land uses along Route 34 comprise office, light industrial and commercial retail uses, Monmouth Executive Airport and vacant parcels zoned for office and industrial uses. The roadway is generally straight and flat.

Per the New Jersey State Highway Access Code, Route 34 is designated as Access Level 3 allowing access to properties via right-turns with provision for left-turn access via jug-handles.

Hurley Pond Road

This roadway is generally oriented east-west and is under municipal jurisdiction. The roadway provides one travel lane per direction with West Hurley Pond Road providing a generally uniform cross section of 12 FT wide lanes with 2 FT wide shoulders and East Hurley Pond Road providing varying travel width (12-25 FT) eastbound and 12 FT width westbound with no shoulders. A 35 MPH speed limit is posted along the roadway, east of Route 34 while a 30 MPH speed limit is posted to the west. Parking is restricted on both sides of the un-curbed roadway. There are utility poles along the southerly edge of the roadway. The land uses along Hurley

Pond Road comprise of commercial retail including a proposed Allaire State Bank and light industrial uses, Monmouth Executive Airport and vacant lands zoned for light industrial and office use. The roadway is generally straight. The vertical alignment is undulating.

Belmar Boulevard (CR 18)

Belmar Boulevard is generally oriented east-west and is under Monmouth County jurisdiction. The roadway provides one 12 FT wide travel lane per direction with 5 FT wide shoulders and no curbs. A 50 MPH speed limit is posted along the roadway. Parking is restricted on both sides of the roadway. There are utility poles along the northerly edge of the roadway. The land uses along Belmar Boulevard in the study area are generally industrial in nature. The roadway is generally straight and the vertical alignment is a westerly incline.

Airport Boulevard

Airport Boulevard, which serves as the main entrance to Monmouth Executive Airport is oriented east-west and is under local jurisdiction. The roadway provides one 12 FT wide travel lane per direction with shoulders of varying widths and no curbs. No speed limit is posted along the roadway. Parking is restricted on both sides of the roadway. There are utility poles along the northerly edge of Airport Boulevard. The land uses along Airport Boulevard include the Monmouth Executive Airport and properties zoned for industrial and office uses. The roadway is generally straight and flat.

The following are descriptions of the study intersections:

NJ Route 34 and Hurley Pond Road

Hurley Pond Road intersects Route 34 to form a four-leg signal-controlled intersection operating on a 2-phase, 120 second cycle length. At the intersection, the Hurley Pond Road approaches provide one 12 FT wide travel lane and a 2 FT wide shoulder. Each approach has one receiving lane, with the westerly approach receiving lane being 12 FT wide and the easterly approach receiving lane being 25 FT wide along the frontage of the property on the southeast quadrant. NJ Route 34 provides two through lanes at the intersection and nearside jug-handles for both northbound and southbound U- and left-turning traffic. The land uses at the intersection are an approved (but not yet constructed) Allaire State Bank in the southwest quadrant, a vacant parcel in the northwesterly quadrant, and flex warehouse/office in the southeasterly quadrant, and a golf driving range in the northeast quadrant.

NJ Route 34 and Airport Boulevard

Airport Boulevard intersects Route 34 to form a four-leg signal-controlled intersection operating on a 3-phase, 120 second cycle length. At the intersection, the Airport Boulevard provides one 14 FT wide lane eastbound and two 12 FT wide lanes westbound. Route 34 provides two 12 FT wide lanes north- and south-bound with nearside jug-handles for U- and left-turns. The land uses at the intersection are office, light industrial/warehouse and commercial. The parcels located west of Route 34 are currently undeveloped.

NJ Route 34 and Belmar Boulevard (CR 18)

Belmar Boulevard intersects Route 34 to form a four-leg signal-controlled intersection operating on a 3-phase, 120 second cycle length. At the intersection, the Belmar Boulevard approaches

provide one 11 FT wide left turn lane and one 12 FT wide lane for shared thru/right-turn movements with 2 FT wide shoulders. Route 34 provides two 12 FT wide lanes north- and south-bound with nearside jug-handles for U- and left-turns. The land uses at the intersection are office, light industrial/warehouse and commercial with the parcels north of Belmar Boulevard currently vacant. The parcel located on the northeast quadrant is signed as the future home of a Medical Arts Center.

Existing Capacity

As a baseline condition, the existing (2004) roadway conditions were analyzed based on traffic volume data identified from traffic studies submitted for review to Wall Township between 2002 and 2004, supplemented with field reconnaissance and NJDOT data. It is noted that the traffic count data along the corridor was higher in 2002 than in 2004. In order to be conservative, the 2002 volumes were utilized to represent existing (2004) volumes. **Figure 2** illustrates the existing weekday morning (AM) and evening (PM) peak street hour (PSH) traffic volumes on the study area network.

Existing Operating Capacity

Based on the premise that most traffic conflicts and delays on a roadway network are experienced at intersections, an assessment of intersection capacity provides sufficient indication of operational efficiency of the corridor. Such an assessment, which is conducted in terms of capacity analysis, is based on methodology defined in the *2000 Highway Capacity Manual*. The methodology defines intersection qualitative levels of service of transportation networks based on predefined quantitative structures as summarized in the table below. For signalized intersections, as is the case in this project, levels of service are computed for each approach and for the entire intersection.

LEVELS OF SERVICE CRITERIA

Intersection Level of Service	Stopped Delay (Seconds/Veh)
A	< 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Source: Highway Capacity Manual, 2000 Edition

The following table shows the existing levels of service at the study intersections.

EXISTING (2004) LEVELS OF SERVICE

INTERSECTION	FLOW	EXISTING LOS	
		AM	PM
Hurley Pond Road and Route 34	EB def L	F, 170.8	E, 55.0
	EB TR	D, 44.0	
	WB LTR	D, 44.7	D, 45.9
	NB T	B, 15.5	A, 5.8
	SB T	A, 6.4	C, 22.5
	Overall	C, 24.1	C, 23.4
Airport Boulevard and Route 34	EB def L	D, 42.4	D, 44.4
	EB TR	D, 41.7	D, 42.2
	WB def L	D, 42.1	D, 46.1
	WB TR		D, 43.0
	NB T	B, 12.0	A, 6.0
	SB T	A, 6.2	B, 14.8
	Overall	B, 11.7	B, 15.4
Belmar Boulevard and Route 34	EB L	C, 33.1	D, 35.5
	EB TR	D, 48.5	F, 163.5
	WB L	C, 31.6	D, 45.7
	WB TR	F, 276.2	D, 47.5
	NB T	C, 27.7	B, 12.2
	SB T	B, 13.2	D, 52.3
	Overall	E, 56.1	D, 54.7

def L = de facto left-turns – movement operates similar to a separate lane

A review of the above table identifies the following constrained capacities:

1. The *de facto* left-turns along eastbound Hurley Pond Road that operate with a failing levels during the morning peak hour.
2. The through/right turn movements along westbound Belmar Boulevard that operate with failing levels during the morning peak hour.
3. The through/right turn movements along eastbound Belmar Boulevard that operate with failing levels during the evening peak hour.

It is noted that all the study area intersections operate with an overall LOS E or better during the typical weekday morning and evening peak hours.

Traffic Projections

As indicated earlier, this study aims to identify transportation enhancements necessary along the Route 34 corridor to support traffic projections following development as well as background growth in Wall Township. In identifying the transportation enhancements, traffic projections were made for the short-term (2014) and long-term (2024). The projections were conducted as follows:

2014 “Build” Traffic

The 2014 Build traffic volumes illustrated in **Figure 4** were developed by summing the projected 2014 No Build (No Study Area Development) (**Figure 3**) traffic and the site-specific traffic for sites anticipated to be developed in the short-term (by 2014). The 2014 No Build traffic projections were arrived at by applying a 1.0% annual background growth rate to the existing (2004) traffic volumes for 10 years, while the site-specific traffic on the study network was developed by assigning trip projections based on the 7th Edition of the Institute for Transportation Engineers’ *Trip Generation Manual*. Trip generation projections for the parcels are appended.¹

Note that, where both office use and light-industrial/warehousing is a permitted use, trip generation for office use was utilized in order to determine a “worst-case” analysis. According to both the 1990 and 2000 Census, more than 90% of the trips to work in Wall Township are by automobile, with transit trips accounting for 3.1% of the total trips. Hence, on the basis that the predominant mode over the last 14 years has been the private automobile and, in being conservative, as well as the fact that developments as-zoned/anticipated will present opportunity for work-trips and the modal split is unlikely to change unless significant investment is undertaken to promote transit, all trips generated have been assumed to be automobile vehicle-trips.

2024 Build Traffic

The 2024 Build traffic volumes illustrated in **Figure 5 and 6** were developed by summing the projected 2024 No Build (No Study Area Development) traffic and the parcel site-specific traffic for sites anticipated to be developed in the long-term (by 2024). The 2024 No Build traffic projections were arrived at by applying a 0.5% annual background growth rate to the 2014 No Build traffic volumes for ten years and adding the 2014 site-specific traffic. In developing the site specific traffic associated with long-term developments trip projections based on the 7th Edition of the Institute for Transportation Engineers’ *Trip Generation Manual* were utilized. The traffic was assigned utilizing similar rationale to the short-term site-specific development traffic.

¹ Since the time the traffic analysis was performed, several development approvals and concept plans have presented revised building uses and square-footages that are generally less intense than those utilized for the purposes of this traffic study. Therefore, for the short-term scenario, it can be said that the analysis is on the conservative side. The analysis of the long-term scenario presumed that more industrial space than office space would be constructed and is, therefore, a less conservative analysis.

2014 Future Operating Capacity

The following table illustrates the operating capacities for the 2014 No Build and Build conditions.

**Table III
 LEVEL OF SERVICE SUMMARY
 2014 (SHORT TERM) NO BUILD AND BUILD CONDITIONS**

INTERSECTION	FLOW	2014 NO BUILD		2014 BUILD	
		AM PSH	PM PSH	AM PSH	PM PSH
Hurley Pond Road and Route 34	EB def L	F, 282.2	E, 68.8	F, 1610	F, 895.2
	EB TR	D, 44.5		E, 65.1	F, 441.1
	WB def L			F, 3211	
	WB TR	D, 45.4	D, 48.7	F, 178.4	F, 161.1
	NB T	B, 15.6	A, 1.3	F, 221.2	A, 1.6
	SB T	A, 1.5	D, 44.7	A, 1.9	F, 245.3
	Overall	C, 28.9	D, 38.2	F, 220.8	F, 459.7
Airport Boulevard and Route 34*	EB L	D, 51.3	D, 52.4	D, 52.3	D, 52.7
	EB TR	D, 52.3	D, 53.7	F, 83.3	E, 56.9
	WB L	D, 54.3	E, 62.0	F, 574.8	F, 383.3
	WB TR	E, 58.2	F, 95.1	E, 60.6	F, 243.1
	NB T	A, 6.9	A, 1.4	F, 114.4	A, 2.1
	SB T	A, 1.5	B, 15.2	A, 2.3	F, 154.2
	Overall	A, 7.5	B, 16.5	F, 114.6	F, 124.6
Belmar Boulevard and Route 34	EB L	C, 33.1	D, 38.7	C, 34.8	F, 492.4
	EB TR	D, 51.7	F, 224.8	F, 93.2	F, 726.1
	WB L	C, 31.8	D, 54.7	C, 33.6	F, 125.4
	WB TR	F, 357.0	D, 49.8	F, 1492	F, 187.5
	NB T	D, 40.6	A, 7.3	E, 52.6	B, 15.9
	SB T	A, 8.0	F, 92.6	B, 12.3	F, 128.9
	Overall	E, 72.1	F, 83.8	F, 380.5	F, 212.7

* Based on planned geometry to be build under Allaire Corporate Park Development
 def L = de facto left = Movement operates similar to an exclusive left-turn lane

A review of the above table identifies the following constrained capacities:

1. During the evening peak hour of the 2014 No Build conditions, the study intersection of Route 34 with Belmar Boulevard will operate with failing levels with intersection delays ranging from approximately 1.2-1.4 minutes per vehicle.
2. Under the 2014 Build conditions, all the intersections will operate at overall failing level of service during both the weekday morning and evening peak street hours with intersection delays ranging from approximately 2.0-7.7 minutes per vehicle.

Overall, several movements at the study intersections will degrade significantly thereby exceeding the “allowable deterioration” as set forth in the NJDOT Access Code and improvements are necessary. The following intersection improvements will be required:

1. At the intersection of NJ Route 34 and Hurley Pond Road:
 - Provision of three (3) travel lanes along northbound and southbound Route 34
 - Provision of dedicated left-turn lanes along eastbound and westbound Hurley Pond Road
 - Provision of two (2) exclusive through lanes along eastbound and westbound Hurley Pond Road
 - Provision of dedicated right turn lanes along eastbound and westbound Hurley Pond Road
 - Optimization of the traffic signal phasing and timing to provide a 3-phase traffic signal including a phase for eastbound and westbound left-turns.

2. At the intersection of NJ Route 34 and Airport Boulevard:
 - Provision of three (3) travel lanes along northbound and southbound Route 34
 - Provision of double left-turn lanes along eastbound and westbound Airport Boulevard
 - Provision of one (1) lane for shared thru/right-turn movements along eastbound and westbound Airport Boulevard
 - Optimization of the traffic signal phasing and timing to provide a 3-phase traffic signal with separate phases for eastbound approach movements, westbound approach movements and for north/south approach movements.

3. At the intersection of NJ Route 34 and Belmar Boulevard (CR 18):
 - Provision of three (3) travel lanes along northbound and southbound Route 34
 - Provision of dedicated left-turn lanes along eastbound and westbound Hurley Pond Road
 - Provision of two (2) exclusive through lanes along eastbound and westbound Hurley Pond Road
 - Provision of dedicated right turn lanes along eastbound and westbound Hurley Pond Road
 - Optimization of the traffic signal phasing and timing to provide a 3-phase traffic signal with an advance phase for eastbound and westbound left-turning traffic

The following table illustrates comparison between the 2014 Build levels of service, with and without the above improvements:

**TABLE IV
LEVEL OF SERVICE SUMMARY
2014 NO BUILD, BUILD AND BUILD W/IMPROVEMENT CONDITIONS**

INTERSECTION	FLOW	2014 NO BUILD		2014 BUILD		2014 BUILD W/IMPROVEMENT	
		AM PSH	PM PSH	AM PSH	PM PSH	AM PSH	PM PSH
Hurley Pond Road and Route 34	EB L	F, 282.2 ^a	E, 68.8	F, 1610 ^a	F, 895.2 ^a	F, 402.3	F, 351.8
	EB T	D, 44.5		E, 65.1	F, 441.1	D, 39.6	D, 39.4
	EB R					D, 40.4	F, 84.3
	WB L	D, 45.4	D, 48.7	F, 178.4	F, 3211 ^a	D, 42.8	F, 555.3
	WB T				F, 161.1	D, 42.4	D, 40.0
	WB R				D, 40.9	D, 40.1	
	NB T	B, 15.6	A, 1.3	F, 221.2	A, 1.6	D, 42.4	A, 2.6
	SB T	A, 1.5	D, 44.7	A, 1.9	F, 245.3	A, 2.4	E, 66.9
	Overall	C, 28.9	D, 38.2	F, 220.8	F, 459.7	D, 48.7	F, 103.7
Airport Boulevard and Route 34*	EB L	D, 51.3	D, 52.4	D, 52.3	D, 52.7	D, 50.2	D, 52.7
	EB TR	D, 52.3	D, 53.7	F, 83.3	E, 56.9	E, 62.3	E, 56.9
	WB L	D, 54.3	E, 62.0	F, 574.8	F, 383.3	E, 65.8	E, 56.0
	WB TR	E, 58.2	F, 95.1	E, 60.6	F, 243.1	D, 46.1	D, 52.0
	NB T	A, 6.9	A, 1.4	F, 114.4	A, 2.1	C, 24.7	A, 5.2
	SB T	A, 1.5	B, 15.2	A, 2.3	F, 154.2	A, 7.1	C, 29.2
	Overall	A, 7.5	B, 16.5	F, 114.6	F, 124.6	C, 24.2	C, 25.5
Belmar Boulevard and Route 34	EB L	C, 33.1	D, 38.7	C, 34.8	F, 492.4	C, 27.6	E, 73.6
	EB T	D, 51.7	F, 224.8	F, 93.2	F, 726.1	C, 27.0	D, 44.6
	EB R					C, 27.2	E, 56.8
	WB L	C, 31.8	D, 54.7	C, 33.6	F, 125.4	C, 20.0	C, 27.7
	WB T	F, 357.0	D, 49.8	F, 1492	F, 187.5	D, 42.8	D, 42.0
	WB R					C, 30.9	D, 37.2
	NB T	D, 40.6	A, 7.3	E, 52.6	B, 15.9	D, 44.1	B, 18.3
	SB T	A, 8.0	F, 92.6	B, 12.3	F, 128.9	C, 23.7	E, 69.5
	Overall	E, 72.1	F, 83.8	F, 380.5	F, 212.7	D, 36.0	D, 51.6

^a Denotes def L = de facto left = Movement operates similar to an exclusive left-turn lane

* Based on planned geometry to be built as part of the Allaire Corporate Park Development

A review of the above table identifies that the improvements suggested yield significant capacity enhancement at the study intersections as follows:

1. With the improvements, overall intersection delays will be reduced by more than 70% compared to delays under Build without improvements.
2. Maximal improvements are identified at the intersection of Hurley Pond Road and Route 34 with a few movements still operating at failing levels.

3. At the intersection of Airport Road and Route 34, the operating conditions will degrade slightly in the 2014 Build with Mitigation scenario, but will still remain at generally acceptable conditions.
4. Maximal improvements are identified at the intersection of Hurley Pond Road and Route 34 with all movements operating at generally acceptable (No failing) levels.

A review of the NJDOT Access Code criteria for “allowable deterioration,” which compares the No Build to the Build conditions, identifies that the following movements do not meet the criteria:

1. Hurley Pond Road and Route 34 *AM Peak Hour*: eastbound left-turn movement; and northbound through movement. *PM Peak Hour*: eastbound left turn and right-turn movements; westbound left-turn movement; and southbound through movement.
2. Airport Boulevard and Route 34 *AM Peak Hour*: eastbound through/right turn movement and westbound left turn movement slightly violate the NJDOT criteria for degradation.
3. Belmar Boulevard and Route 34 *PM Peak Hour*: eastbound left-turn movement.

2024 Future Operating Capacity

The following table illustrates the 2024 No Build and Build operating capacities. **Note that the analysis includes the improvements identified for the 2014 short term.**

**TABLE V
LEVEL OF SERVICE SUMMARY
2024 (LONG TERM) NO BUILD AND BUILD CONDITIONS**

INTERSECTION	FLOW	2024 NO BUILD		2024 BUILD	
		AM PSH	PM PSH	AM PSH	PM PSH
Hurley Pond Road and Route 34	EB L	F, 527.6	F, 446.5	F, 3615	F
	EB T	D, 39.6	D, 39.6	D, 40.1	D, 41.8
	EB R	D, 40.5	F, 131.9	F, 215.6	F, 2027
	WB L	D, 42.9	F, 596.5	F, 676.3	F, 1268
	WB T	D, 43.0	D, 40.3	F, 878.2	E, 79.8
	WB R	D, 41.6	D, 40.2	D, 42.4	D, 40.5
	NB T	E, 78.3	A, 2.7	F, 148.8	A, 2.9
	SB T	A, 2.4	F, 118.1	A, 2.7	F, 169.0
Overall	E, 75.8	F, 140.3	F, 483.5	F	
Airport Boulevard and Route 34*	EB L	D, 50.3	D, 52.9	D, 50.3	D, 52.9
	EB TR	E, 63.2	E, 57.9	E, 63.2	E, 57.9
	WB L	E, 72.9	E, 56.9	E, 66.6	E, 56.8
	WB TR	D, 46.2	D, 52.9	D, 46.2	D, 52.9
	NB T	D, 50.7	A, 5.4	F, 117.2	A, 8.9
	SB T	A, 7.2	E, 67.1	C, 20.9	F, 118.5

Route 34: Belmar Boulevard to Garden State Parkway

Land Use and Traffic Study

INTERSECTION	FLOW	2024 NO BUILD		2024 BUILD	
		AM PSH	PM PSH	AM PSH	PM PSH
	Overall	D, 39.9	D, 48.7	E, 75.8	E, 73.3
Belmar Boulevard and Route 34	EB L	C, 29.0	F, 150.4	C, 33.5	F, 86.1
	EB T	C, 27.1	D, 46.8	C, 27.1	D, 46.3
	EB R	C, 27.3	E, 70.3	C, 28.9	F, 333.1
	WB L	B, 20.0	C, 29.8	B, 20.0	C, 29.6
	WB T	E, 58.0	D, 43.2	F, 129.8	D, 45.0
	WB R	C, 31.3	D, 37.2	C, 31.3	D, 37.2
	NB T	E, 61.5	B, 18.8	F, 105.1	D, 41.4
	SB T	C, 24.6	F, 96.6	F, 128.1	F, 148.3
	Overall	D, 46.4	E, 71.0	F, 110.1	F, 107.7

* Based on planned geometry to be build under Allaire Corporate Park Development
def L = de facto Left = Movement operates similar to an exclusive left-turn lane

A review of the above table identifies that the Hurley Pond Road and Belmar Boulevard study intersections will be significantly constrained under the 2024 Build conditions, with both operating at overall failing levels. The intersection of Airport Boulevard and Route 34 will operate at overall generally accepted levels with the northbound through and southbound through movements operating at failing levels during the morning and evening peak street hours respectively. Note that the geometry as identified for the 2014 analysis represents maximal geometry considering right-of-way constraints and reasonable improvements that could be constructed less an overpass at the intersection.

Arterial Travel Time Analyses

The objective is to compare existing and future arterial travel times along Route 34 between Hurley Pond Road and Belmar Boulevard in order to provide additional insights as to the impact of future traffic on the operational efficiency of the study corridor. The analysis, which is based on methodology defined in the 2000 Highway Capacity Manual, has been conducted for the 2004 Existing, 2014 Build with and without improvements and 2024 Build conditions. Table VII below shows a summary of the travel time estimates, by travel direction.

TABLE VII
STUDY CORRIDOR TRAVEL TIME SUMMARY
FROM HURLEY POND ROAD TO BELMAR BOULEVARD

TIME PERIOD	TOTAL TRAVEL TIME (Minutes/mile)			
	AM PSH		PM PSH	
	NB	SB	NB	SB
2004 Existing Condition	1.5	1.5	1.5	1.9
2014 Build Conditions	4.2	1.6	1.7	6.0
2014 Build w/improvements	2.2	1.8	1.7	2.8
2024 Build w/improvements	6.6	2.9	2.9	10.2

A review of the above table shows that the following:

1. The most significant delays in 2014 will be experienced in the northbound direction during the morning peak hour and in the southbound direction during the evening peak hour. The evening southbound delays are approximately one and a half times the morning northbound delays, prior to any improvements being constructed through the corridor and at the study intersections.
2. Between 2004 and 2014, the morning northbound delays and the evening southbound delays will increase from 1.5-4.2 minutes/mile and 1.9-6.0 minutes/mile, respectively.
3. The proposed improvements will reduce delay in 2014 along the corridor during the peak delay periods; an indication of enhanced roadway network capacity.
4. Travel time delays in 2024 will be significant even with the maximal improvements installed at the study intersections.

Traffic Analysis Summary

1. Under the existing conditions, the study intersections of Route 34 with Hurley Pond Road, Airport Boulevard and Belmar Boulevard operate at overall level of service B, A and D respectively. However, the following movements operate with failing levels:
 - Left-turns along eastbound Hurley Pond Road during the morning peak hour;
 - Thru/right turns along westbound Belmar Boulevard during the morning peak hour; and
 - Thru/right turns along eastbound Belmar Boulevard during the evening peak hour.
2. The deterioration for several movements from 2004 Existing to 2014 No Build to 2014 Build conditions exceed the “allowable deterioration” as set forth in the NJDOT Access Code along with each study intersection operating at overall failing levels of service. The following intersection improvements have been identified:
 - Provision of three (3) travel lanes along northbound and southbound Route 34;
 - Improvements to eastbound and westbound Hurley Pond Road to include an exclusive left turn lane, two (2) through lanes and an exclusive right turn lane;
 - Provision of double left-turn lanes along eastbound and westbound Airport Boulevard along with a shared through/right turn lane (note that this improvement has been proposed as part of a development application approved by the planning board on the east side of Route 34 at the intersection);
 - Improvements to eastbound and westbound Belmar Boulevard to include an exclusive left turn lane, two (2) through lanes and an exclusive right turn lane;
 - Optimization of the traffic signal phasing and timing at the study intersections.
3. With the improvements as noted in number 2 above, the majority of the movements will operate at generally accepted levels, less some movements at the intersection of Hurley Pond Road and Route 34, which will operate over capacity.

4. A review of the NJDOT Access Code criteria for “allowable deterioration,” which compares the No Build to the Build conditions identifies that the following movements in 2014 will not meet the criteria:
 - Hurley Pond Road and Route 34 *AM Peak Hour*: eastbound left-turn movement and northbound through movement. *PM Peak Hour*: eastbound left turn and right-turn movements; westbound left-turn movement; and southbound through movement.
 - Airport Boulevard and Route 34 *AM Peak Hour*: eastbound through/right turn movement and westbound left turn movement slightly violate the NJDOT criteria for degradation.
 - Belmar Boulevard and Route 34 *PM Peak Hour*: eastbound left-turn movement.
5. In 2024, the study intersections will operate with failing levels and significantly constrained conditions with and without signal timing/phasing changes. Note that due to constraints in space and functionality, the 2014 modified geometry is retained in 2024.
6. Currently, travel times along northbound and southbound Route 34 within the study area vary from 1.5-1.9 minutes per mile (32-39 MPH) during the peak hours. If no improvements are made to the existing geometry and signal timing/phasing, the 2014 morning and evening travel times in will triple (4.2 min/mile) and almost quadruple (6.0 min/mile) in the northbound and southbound peak directions respectively.
7. With the proposed 2014 improvements, travel times along the Route 34 corridor will be significantly reduced from the no improvement scenario to 1.8-2.8 minutes per mile. It should be noted that this represents a 20-50% increase over the existing Route 34 corridor travel times.
8. The 2024 travel times will be constrained in the peak directions, northbound in the morning and southbound in the evening.

Traffic Analysis Conclusions

1. In 2014, with all the short-term developments built, each of the study intersections will operate with failing levels and the corridor travel times will be greatly inhibited. Without mitigation, the Route 34 corridor cannot support the 2014 Build traffic.
2. By providing significant improvements to side street geometries and three (3) through lanes on Route 34, the failing 2014 levels are significantly improved to acceptable levels at Airport Road and Belmar Boulevard. Delays associated with failing Build levels of service at Hurley Pond Road are reduced.

3. By 2024, each of the study intersections and the entire corridor will operate with failing levels. No at-grade and/or signal improvements can accommodate the 2024 traffic. Above-grade (fly-overs or overpasses) were not considered as part of this analysis).

STUDY AREA RECOMMENDATIONS

The findings of this study indicate that additional development in the study area in the short-term cannot be accommodated by the existing roadway system, however that with recommended at-grade improvements, the roadway network could function. Long-term build-out of the study area cannot be accommodated by at-grade improvements.

Overall Development Potential of Study Area

Term	Scenario One: Dominant Office		Scenario Two: Dominant Industrial	
	SF Office	SF Industrial	SF Office	SF Industrial
Short (0 to 10 years)	1,916,407	186,118	1,113,989	1,058,313
Long (10+ years)	5,453,088	4,678,906	1,205,739	8,205,748
Total	7,369,495	4,865,024	2,319,728	9,264,061

The following actions could assist in keeping the transportation network of the area viable:

1. Create a Transportation Development District for the study area. The Transportation Development Act of 1989 (“the Act”) authorizes counties in New Jersey in cooperation with New Jersey Department of Transportation to establish special financing districts called Transportation Development Districts (TDDs) as a means to address the burdens of increased traffic congestion in “high-growth” development corridors, and to anticipate development. The Act authorizes counties to assess fees on private development to help finance improvements in the transportation network necessitated by such growth.

The transportation goals of a TDD are to maintain acceptable traffic flows, protect the quality of life for existing residents, and promote alternative modes of transportation. The creation and implementation of a TDD will result in a special assessment district or regional growth area that will create a funding base for transportation infrastructure improvements. Infrastructure investment could be planned to meet the mobility needs of the corridor over a short-term and long-term planning horizon.

The first State-approved TDD was in Mercer County in 1990. It was created in response to development pressure in an undeveloped area of the County including the Townships of Howell, Ewing and Lawrence. The County initiated a Comprehensive Land Use/Transportation Study designed to determine the appropriate development densities and infrastructure needs for the regional growth area. The County in cooperation with NJDOT utilized the study as a base, and developed a Transportation Improvement Plan for the TDD which identified transportation needs, set up a fee formula, and identified public resources available. In addition, the plan prioritized improvement projects and

allocated a public and private sector share of the improvement costs, and established a trip-based fee to be collected. In 1992, the County adopted the plan, and NJDOT approved it. An update of the plan is currently underway.

Preparation of the requisite studies for the TDD could be sought from Monmouth County, or from State grant programs.

2. Retain Monmouth Executive Airport as an airport use. Redevelopment potential of the airport proper is approximately 2,882,692 square feet of industrial space, or a lesser amount of office space, which would generate more vehicular trips than the industrial space. Whether this be accomplished through supporting the County's attempts to purchase the property, or considering municipal acquisition of the property again, retention of the runway area for airport use would decrease the amount of square-footage built on that property, and would serve as an enhancement to the area overall through the presence of a regional airport service.
3. Decrease the amount of square-footage permitted in the GI and OR Zones. This could be accomplished in effect by:
 - a. Creating a maximum FAR for each district that is less than the 0.23 and 0.25 average FARs utilized for the purposes of this study;
 - b. Modifying the zoning ordinance's definition of "lot area" to exclude environmental constraints such as wetlands and steep slopes. This would effectively decrease the square-footage amounts generated on parcels that contain such environmental constraints such as those to the west of the airport, and along Route 34 northbound across from the airport.
4. Partner with NJDEP or Monmouth County to purchase development rights on one or more properties to limit the amount of square-footage that can be constructed.

APPENDIX A

List of Property Owners in Study Area

Block	Lot	Address	Address	Owner Name (First Name First)	Zoning
945	10	4001	W Hurley Pond Rd	William J & Gale D Quinn	parkway zoned
945	11.QF	1880	Hwy 34	Fred Mcdowell	OR-10
945	12	1862	Hwy 34	Township Of Wall	OR-10
945	13	4005	W Hurley Pond Rd	John D Pittenger Builder Inc	OR-10
945	14	4101	W Hurley Pond Rd	Pat Joyce Holding Company	CR-40
945	15	4103	W Hurley Pond Rd	Pat Joyce Holding Company	CR-40
945	16	1800	Hwy 34	Donato Hi-Tech Wall Llc	OR-10, airport hazard zone
945	17	4111	W Hurley Pond Rd	Carl & Sandra Stallone	R-60
945	19	1860	Hwy 34	Township Of Wall	OR-10
945	21	4107	W Hurley Pond Rd	Christie Pearce	R-60
942	115	1734	Hwy 34	1730 Hwy 34 Corporation Inc	OR-2
942	132			--	
942	34	4801	Broad St	Township Of Wall	OP-10, airport hazard zone
942	35	1660	Hwy 34	Township Of Wall	POS, airport hazard zone
942	36			TOWNSHIP OF WALL	POS
942	37	1718	Hwy 34	Lab-Volt Systems Inc	OR-2, POS
942	38	1670	Hwy 34	D & O Associates Llc	OR-2, airport hazard zone
942	51	1620	Hwy 34	Township Of Wall	OP-10, airport hazard zone
942	56	1710	Hwy 34	Mcdaniel Associates Llc	OR-2
942	57	1730	Hwy 34	Lab-Volt Systems Inc	OR-2
942	58	1740	Hwy 34	Zodiac Acquisition Corporation	OR-2
942	59	1746	Hwy 34	Adam-Spence Corp	OR-2
942	60	1750	Hwy 34	Stephen J Deitz	OR-2, airport hazard zone
942	61	1758	Hwy 34	Colfax Family Dev Co Inc	OR-10, airport hazard zone
942	62	1760	Hwy 34	Antonetta Gardella	OR-10, airport hazard zone
942	63	1766	State Route 34	Route Thirty-Four Associates L	OR-10, airport hazard zone
942	65	4130	W Hurley Pond Rd	Sixty-Five Quail Ridge	OR-10, airport hazard zone
942	67	4150	Dunroamin Rd	John N Taylor	OR-10
942	78	4179	Dunroamin Rd	Adam-Spence Corporation	OR-2
942	79	1770	Hwy 34	Seventy-Nine Quail Ridge	OR-10, airport hazard zone
942	80	4168	Dunroamin Rd	Dunmovin Partnership Llc	OR-2
942	81	4158	Dunroamin Rd	Weaver Landmark Llc	OR-2

Block	Lot	Address	Address	Owner Name (First Name First)	Zoning
942	82	1720-1722	Hwy 34	Hall Construction Co Inc	OR-2
942	87			--	OR-2
922	1	1801	Hwy 34	Exxon Corporation	OR-10, airport hazard zone
922	12	1808	Carmerville Rd	Robert & Hattie Frazier	R-20
922	2	4803	W Hurley Pond Rd	Jehiel H Lehman	OR-10, airport hazard zone
922	3	1803	Hwy 34	Wall Speedway Properties Llc	OR-10, airport hazard zone
922	4	1825	Hwy 34	Township Of Wall Pumping Stati	OR-10
922	5	1875	Hwy 34	Fred Mc Dowell	OR-10, GI-10, airport hazard zone
922	5.QFA			FRED MC DOWELL	OR-10
921	1		Atlantic Ave	State Of New Jersey-Human Serv	POS
921	2		Allaire	State Of New Jersey-Dep	POS
920	1.01	5143	W Hurley Pond Rd	Regina Cutillo	GI-2
920	1.02-1.18		W Hurley Pond	--	GI-2
920	1.19	5133	W Hurley Pond Rd	Gail Lynn Properties Llp	GI-2
920	1.20			--	GI-2
920	18	1851	Hwy 138	Township Of Wall	GI-10
920	19	1852	Carmerville Rd	Shéila Strauss	RE, airport hazard zone
920	2		W Hurley Pond Rd	Biogenic Waste Management Inc	GI-2
920	20			TOWNSHIP OF WALL	POS
920	3	5123	W Hurley Pond Rd	State Of NJ Dept Of Environmen	GI-10
920	31		W Hurley Pond Rd	State Of New Jersey-Dep	POS
920	4	5109	W Hurley Pond Rd	Robert Vitale	GI-10
917-1	101	5022	Industrial Rd	W & G Kaufman Von Bulow	GI-2, airport hazard zone
917-1	102	5026	Industrial Rd	Clean Living Technologies Inc	GI-2, airport hazard zone
917-1	104	5042	Industrial Rd	Henry & Rosemary Coakley	GI-2, airport hazard zone
917-1	105	5036	Industrial Rd	Vbg-Llc	GI-2, airport hazard zone
917-1	19	1615	Hwy 34	Martelli Office Park Llc	OP-2
917-1	20	1614	Shafto Rd	Paul S & Tracey E Scott	GI-2
917-1	21	1616	Shafto Rd	Leesville Auto Wreckers Inc	GI-2
917-1	22	1612	Shafto Rd	Leesville Auto Wreckers Inc	GI-2
917-1	23	1610	Shafto Rd	Glenn & Gail Kritch	GI-2
917-1	26	1608	Wyckoff Rd	Charles Kritch	GI-2
917-1	27	5019	Belmar Blvd	Jcp & L Co - Fe Service Tax De	GI-2
917-1	29	1624	Shafto Rd	Richard Damerau	GI-2
917-1	31			--	GI-2

Block	Lot	Address	Address	Owner Name (First Name First)	Zoning
917-1	32			--	GI-2
917-1	33	1601	Hwy 34	New Jersey Natural Gas Company	OP-2
917-1	34	1618	Shafto Rd	Maynard & Maynard T Margeson	GI-2
917-1	37	1651	Hwy 34	Wall Storage Ii Of New Jersey	GI-2, airport hazard zone
917-1	38-1	1661	Hwy 34	New Jersey Gravel & Sand Co	GI-2, airport hazard zone
917-1	38-2			--	GI-2, airport hazard zone
917-1	38-3	1630	Shafto Rd	Duncan Thecker Assocs	GI-2, airport hazard zone
917-1	41	5050	Industrial Rd	J D L H Associates Llc	GI-2, airport hazard zone
917-1	43	16101/2	Shafto Rd	Glenn & Gail Kritch	GI-2
917-1	44	1669	Hwy 34	1669 Route 34 Llc	GI-2, airport hazard zone
917-1	86	5020	Industrial Rd	Donald T Corson	GI-2, airport hazard zone
917-1	87	5018	Industrial Rd	Jersey Truck Equipment Associa	GI-2, airport hazard zone
917-1	88	5016	Industrial Rd	5016 Industrial Road L L C	GI-2, airport hazard zone
917-1	90	5012	Industrial Rd	John J & Mary Ann Crimmins	GI-2, airport hazard zone
917-1	91	5010	Industrial Rd	Edward Joseph Santalone	GI-2, airport hazard zone
917-1	92	5008	Industrial Rd	Selective Coatings & Inks Inc	GI-2, airport hazard zone
917-1	93	5006	Industrial Rd	Henry A Fernot	GI-2, airport hazard zone
917-1	94	5004	Industrial Rd	Donald T Corson	GI-2, airport hazard zone
917-1	95	1675	Hwy 34	John F & Judith Daly	GI-2, airport hazard zone
917-1	96	1671	Hwy 34	Eugene & James W Murray	GI-2, airport hazard zone
950-1	1			STATE OF NEW JERSEY	POS
950-1	2			STATE OF NEW JERSEY-DEP	POS
950-1	3			STATE OF NEW JERSEY- HUMAN SERV	POS
917	1	1747	State Route 34	Zodiac Acquisition Corporation	OR-2, airport hazard zone
917	100	5029	Industrial Rd	Donald T Corson	GI-2, airport hazard zone
917	106	5031	Industrial Rd	Sonetronics International Inc	GI-2, airport hazard zone
917	107.C	5033	Industrial Rd	K & S Industries	GI-2, airport hazard zone
917	107.C	5033	Industrial Rd	K & S Industries	GI-2, airport hazard zone
917	107.C	5033	Industrial Rd	Entry Systems Inc	GI-2, airport hazard zone
917	107.C	5033	Industrial Rd 4	Kevin W Griffin	GI-2, airport hazard zone
917	107.C	5033	Industrial Rd 5	Matco Sales & Service Llc	GI-2, airport hazard zone
917	107.C	5033	Industrial Rd	James W Watts	GI-2, airport hazard zone
917	107.C	5033	Industrial Rd	Carmine & Marie Basile	GI-2, airport hazard zone
917	107.C	5033	Industrial Rd 8	Dominic J Palumbo	GI-2, airport hazard zone
917	108	5035	Industrial Rd	Nj Newsdealers Hold Corp	GI-2, airport hazard zone
917	11	4806	W Hurley Pond Rd	Francis G Todero	OR-2, airport hazard zone
917	110	5039	Industrial Rd	Christian J Larsen	GI-2, airport hazard zone
917	111	5041	Industrial Rd	Royal Developments	GI-2, airport hazard zone
917	112	5043	Industrial Rd	N4 Llc	GI-2, airport hazard zone
917	114	5047	Industrial Rd	Aaron Walker Associates Llc	GI-2, airport hazard zone
917	115	5049	Industrial Rd	Kahuna Assocs Llc	GI-2, airport hazard zone

Block	Lot	Address	Address	Owner Name (First Name First)	Zoning
917	116	5051	Industrial Rd	Tiger Construction Services Co	GI-2
917	117	1631	Shafto Rd	Gary & Mary De Sarno	GI-2
917	119			--	GI-2, airport hazard zone
917	119-1	1709	Hwy 34	Abm Associates	
917	119-2	1709	Hwy 34	Abm Associates	
917	120	5148	W Hurley Pond Rd	Aidil Investment Corporation	GI-2
917	121	5114	W Hurley Pond Rd	Church Of St Rose	CR-40
917	122	5104	W Hurley Pond Rd	Church Of St Rose	POS, airport hazard zone
917	13-1	1737	State Route 34	Wall Herald Corp	A-I, airport hazard zone
917	14	1727	State Route 34	Edward Brown	A-I, airport hazard zone
917	15	1715	State Route 34	Third Ave Realty	A-I, airport hazard zone
917	16			--	GI-5, airport hazard zone
917	3	1761	State Route 34	Charles & Ann Marie Longo	OR-2, airport hazard zone
917	4	1771	State Route 34	Nvr Inc	OR-2, airport hazard zone
917	5.01	1775	State Route 34	Stephen Vacchiano	OR-2, airport hazard zone
917	50	5101	Belmar Blvd	Lurch Family Limited Partnersh	GI-2
917	51	1605	Shafto Rd	Lurch Family Limited Partnersh	GI-2
917	52	1617	Shafto Rd	Scoras Realty Partners	GI-2
917	53	1623	Shafto Rd	Frank Lurch	GI-2
917	54	1627	Shafto Rd	Glen Oak Development Co	GI-2
917	55	5121	Belmar Blvd	Lurch Family Limited Partnersh	GI-2
917	56	5117	Belmar Blvd	Lurch Family Limited Partnersh	GI-2
917	57	5115	Belmar Blvd	Lurch Family Limited Partnersh	GI-2
917	58	5111	Belmar Blvd	Continental Holding Corporatio	GI-2
917	59	5107	Belmar Blvd	Maureen C French	GI-2
917	60	5125	Belmar Blvd	Lurch Familylimited Partnershi	GI-2
917	61	1633	Shafto Rd	Township Of Wall	POS
917	62		Belmar Blvd	Edward I Brown	GI-5, airport hazard zone
917	63	5151	Belmar Blvd	Richard A Schulz	GI-5
917	64	5155	Belmar Blvd	Edward I & Doris Brown	GI-5, airport hazard zone
917	65	5165	Belmar Blvd	Percy S Farry	GI-5, airport hazard zone
917	65.QF	5165	Belmar Blvd	Percy S Farry	GI-5, airport hazard zone
917	66	5100	W Hurley Pond Rd	Wall Herald Corp	CR-40, GI-5, A-I
917	66-1	6143	Belmar Blvd	Wall Herald Corp	A-I, airport hazard zone
917	67	5135	Belmar Blvd	Joseph & Donald M Lurch	GI-2
917	68	5147	Belmar Blvd	Hickory Arms Inc	GI-5, airport hazard zone
917	70		W Hurley Pond Rd	State Of New Jersey-Dep	POS
917	71		W Hurley Pond Rd	State Of New Jersey-Dep	POS
917	72		W Hurley Pond Rd	Aidil Investment Corp	GI-2

Block	Lot	Address	Address	Owner Name (First Name First)	Zoning
917	74	5138-5146	W Hurley Pond Rd	Richard A Schulz	GI-2
917	75	5130	W Hurley Pond Rd	5130 West Hurley Pond Road Llc	GI-2
917	77	5001	Industrial Rd	John Fischer	GI-2, airport hazard zone
917	78	5003	Industrial Rd	Industrial Road Co	GI-2, airport hazard zone
917	8	1799	State Route 34	Eaton Enterprises	OR-2, airport hazard zone
917	80	5007	Industrial Rd	Fourkay Realty Llc	GI-2, airport hazard zone
917	81	5009	Industrial Rd	State Of New Jersey Dept Of Tr	GI-2, airport hazard zone
917	83	5013	Industrial Rd	Commissioners Of Fire District	GI-2, airport hazard zone
917	85	5021	Industrial Rd	Mc Kinley Morganfield Investme	GI-2, airport hazard zone
917	9	4802	W Hurley Pond Rd	Eaton Enterprises	OR-2, airport hazard zone
917	97	5023	Industrial Rd	Joseph & Carole Mc Ginley	GI-2, airport hazard zone
917	98	5025	Industrial Rd	Marjorie S Deacon	GI-2, airport hazard zone
917	99	5027	Industrial Rd	Ccpd Llc	GI-2, airport hazard zone
917	44			--	GI-5
917	44.01			--	GI-5
	44.04			--	GI-5
917	13	1717	State Route 34	Wall Herald Corp	