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ATTACHMENT 12

REASSESSMENT OF TRAFFIC, PARKING AND CIRCULATION IMPACTS OF PROPOSED VILLAGE PLAZA THEATER REDEVELOPMENT

Prepared for:

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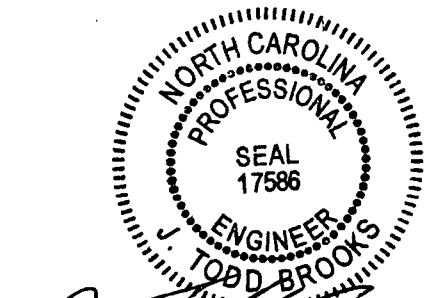

5/28/04

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I. INTRODUCTION

Study Area and Site Description

Eastern Federal Theaters is proposing to redevelop its former theater site located at 141 South Elliot Road in Chapel Hill, North Carolina, by constructing a 10-screen multiplex theater with stadium seating and other modern amenities (see **Figure 1**). A 5-screen Eastern Federal Theater formerly occupied this site but was demolished in Fall 2003 to prepare for redevelopment of the property.

The Eastern Federal property fronts Elliott Road along its western boundary and abuts three shopping center properties along its remaining three boundaries. Sharing the northern property line is a shopping center owned by Ginn & Company that has Whole Foods as its anchor tenant. The Gateway Commons shopping center, site of the Staples Office Superstore, is owned by the Little & Cloniger Partnership and abuts the eastern property lines of both Eastern Federal and the Ginn property. The shopping center that houses Spa Health Club is owned by Triangle V II c/o Mark Realty Corporation (i.e., Mark Properties) and abuts the southern property line of both the Eastern Federal parcel and Little & Cloniger parcel. **Figure 2** illustrates the spatial relationship of these four properties. **Table 1** summarizes the three shopping centers adjacent to the Eastern Federal property by owner, name and anchor tenant. **Table 2** summarizes the status of vehicular cross access between the four properties.

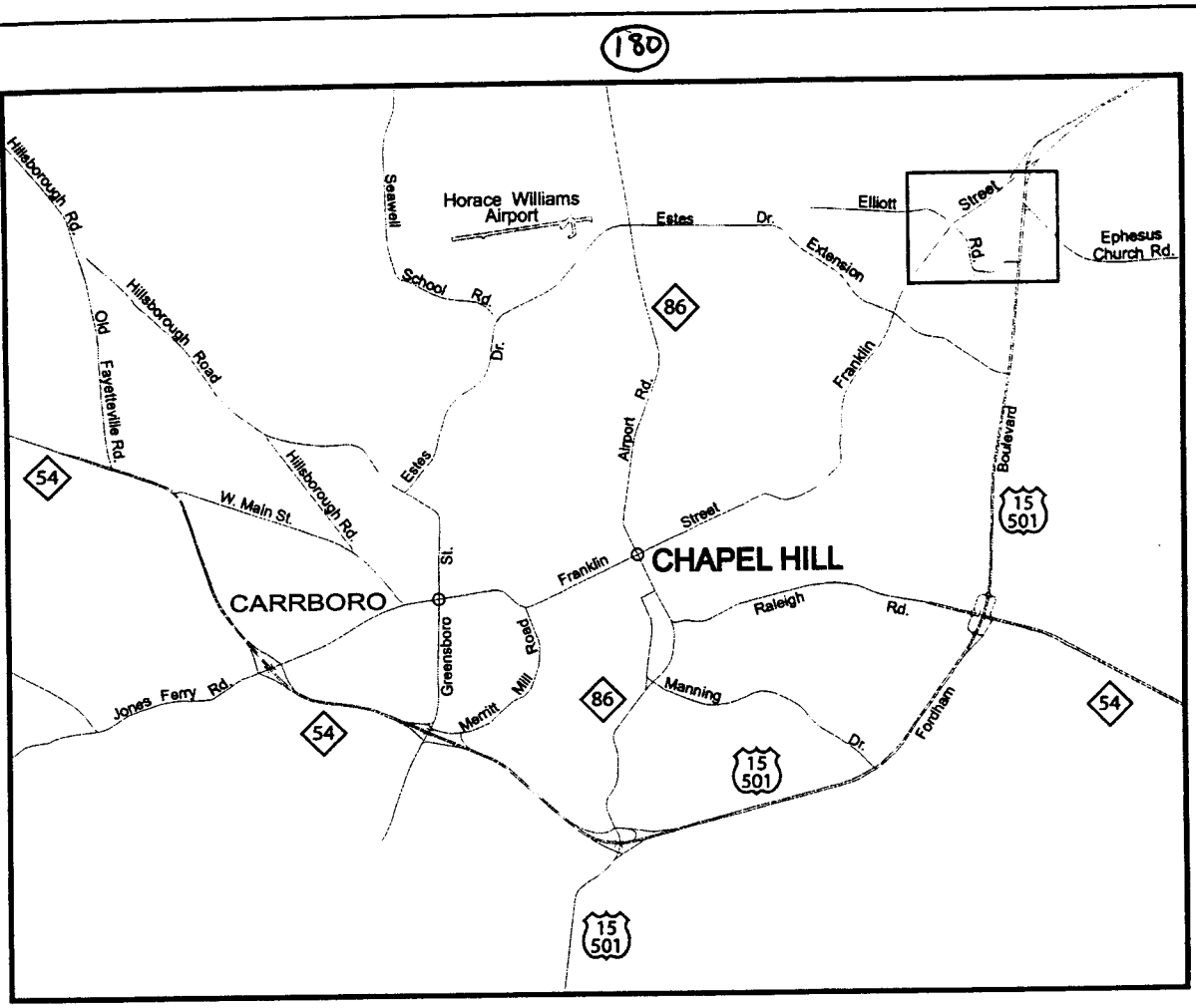
Table 1
Summary of Shopping Center Owners and Anchor Tenants

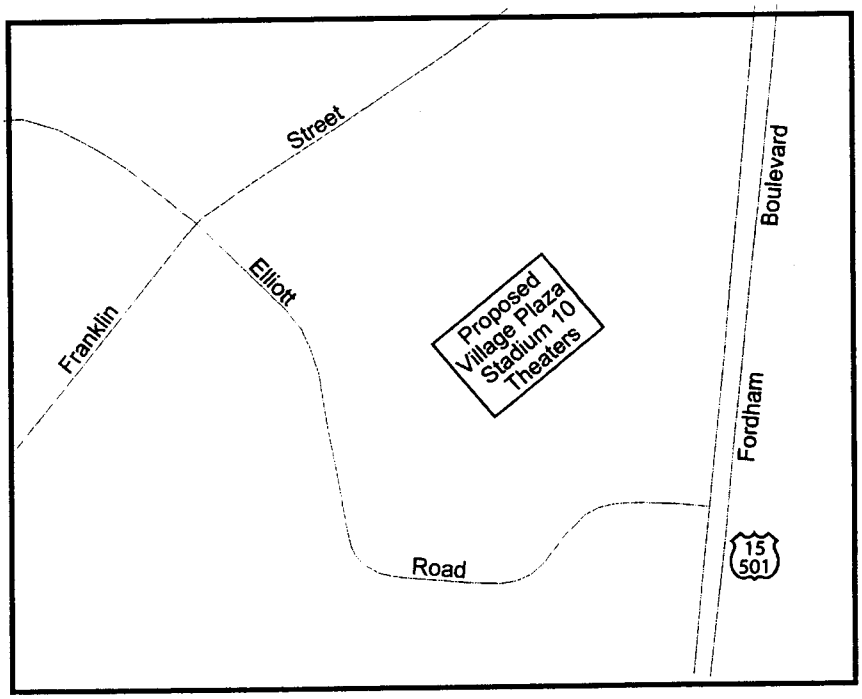
Property Owner	Anchor Tenant(s)
Ginn & Company	Whole Foods Red Hot & Blue
Little & Cloniger Partnership	Staples Office Superstore
Mark Properties	Spa Health Club

Table 2
Summary of Existing Vehicular Cross Access

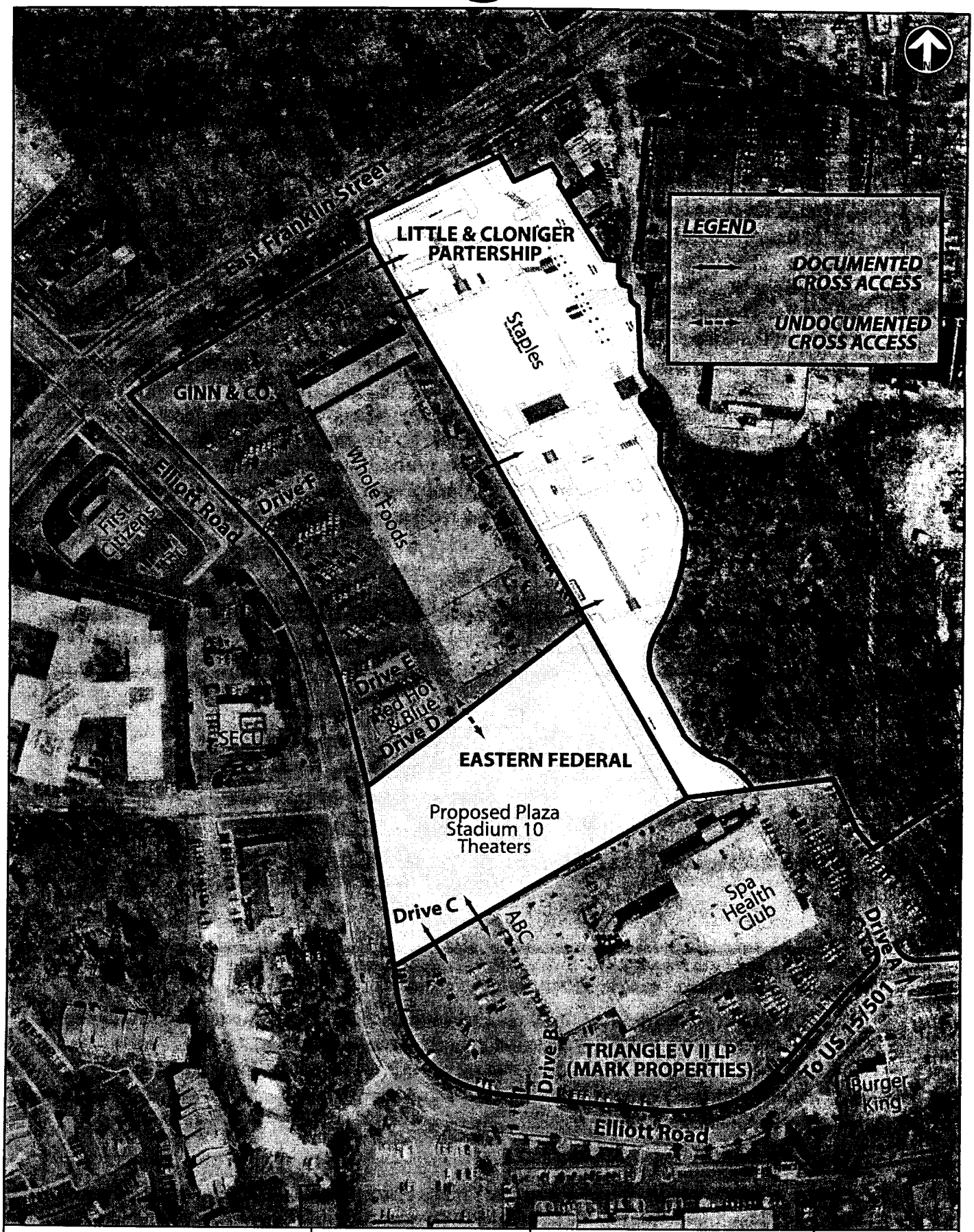
Abutting Properties	Existing Vehicular Cross Access?	Formal, Documented Cross Access Agreement Exists?
Ginn & Company and Little & Cloniger	Yes	Yes
Ginn & Company and Eastern Federal	Yes	No
Eastern Federal and Mark Properties	Yes	Yes
Eastern Federal and Little & Cloniger	None	No
Mark Properties and Little & Cloniger	None	No

There is a single existing connection between the Eastern Federal property and the Ginn & Company property that aligns with the main north-south circulation aisle of the Ginn & Company parking lot. However, there is no existing cross access agreement executed between Ginn & Company and Eastern Federal. Vehicular cross access between Little & Cloniger and both Eastern Federal and Mark Properties does not exist due a pedestrian path





PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: VICINITY MAP	Figure 1



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: SITE LOCATION	Figure 2

connecting to the greenway system that occupies the part of the Little & Cloniger land adjacent to the other two properties. There are cross access points between the Ginn & Company parking lot and the Little & Cloniger parking lot at the northern and southern ends of the Ginn property as well as along the rear service and delivery vehicle alley of the Ginn property.

A total of six driveway connections along the east side of Elliott Road provide access to the public street system for all of the aforementioned properties except the Little & Cloniger property. The Little & Cloniger property is served by a single driveway that connects to East Franklin Street. The tenants of the Little & Cloniger property do have indirect access to Elliott Road by virtue of the cross access agreement with Ginn & Company. Likewise, the tenants of the Ginn & Company property have indirect access to East Franklin Street by virtue of the same cross access agreement. There is, however, no direct driveway connection to East Franklin Street from the Ginn & Company Property. The Elliott Road driveways and the properties on which each one is located are summarized in Table 3 and their spatial relationship and location are illustrated in **Figure 2**. Six additional driveways on the opposite side of Elliott Road serve other property owners and businesses on the side of Elliott Road opposite the shopping centers and proposed theater. Three of these driveways align with Driveways A, D and F to form four-way intersections. All of the driveways are stop sign controlled.

Table 3
Summary of Driveways along East Side of Elliott Road

Property Owner	Driveway	Nearby Businesses	Intersection Type
Mark Properties	A	Spa Health Club *Burger King*	4-way
	B	Coffee Shop/Restaurant	3-way
Eastern Federal	C	Village Plaza Theaters	3-way
Ginn & Company	D	Red Hot & Blue (Theater side) *Rehabilitation Center* *State Employees Credit Union*	4-way
	E	Red Hot & Blue (Whole Foods side)	3-way
	F	Whole Foods *First Citizens Bank*	4-way

NOTE: Businesses shown in italics are located on property owned by others on opposite side of Elliott Road and are served by a fourth leg of the intersection.

Elliott Road is a collector street that connects fronting commercial property to East Franklin Street to the north and to US 15-501 (Fordham Boulevard) to the south. East Franklin Street and US 15-501 (Fordham Boulevard), in turn, provide access to major origins and destinations within Chapel Hill and the regional roadway network. Traffic signals control the Elliott Road intersections with East Franklin Street and US 15-501 (Fordham Boulevard).

Project History

In order to redevelop the existing 5-screen Village Plaza Theater into the proposed Plaza Stadium 10 multiplex theater, Eastern Federal Theaters applied for a modification to their

existing Special Use Permit (SUP) with the Town of Chapel Hill. Mark Properties, owner of the shopping center adjoining the Eastern Federal property on its southern property line, was a co-applicant on the existing special use permit and is likewise a co-applicant on the SUP modification. The SUP application proposes to improve the Mark Properties shopping center parking lot in conjunction with the redevelopment of the theaters. In addition, a cross-access agreement between Eastern Federal and Mark Properties would permit the theater to use Mark Properties' parking lot for theater employee and theater patron parking.

As part of the application review process, the Town of Chapel Hill contracted with the consulting engineering firm RS&H to perform a traffic impact analysis (TIA) for the proposed redevelopment of the Eastern Federal property. The RS&H TIA was conducted based upon a conceptual plan prepared by Richard A. Gurlitz Architects that had been submitted to the Town by the applicant. This site plan showed all four of the aforementioned adjoining properties and all of the site driveways (i.e., Driveways A through F) that connected to Elliott Road. The two driveways directly in front of the proposed theater on this conceptual plan were on Driveway C and D (Site Entrances 1 and 2 respectively in the RS&H TIA). Therefore, RS&H assumed that all theater traffic would enter and exit via Driveways C and D. RS&H then analyzed the following Elliott Road intersections to assess the impacts of additional traffic generated by theater redevelopment and the addition of five movie screens:

- US 15-501 (Fordham Boulevard)
- Driveway C (Site Entrance 1)
- Driveway D (Site Entrance 2)
- East Franklin Street

The intersections were analyzed for the following three peak traffic periods:

- Weekday AM Peak Hour of Adjacent Street Traffic (7-9 am)
- Weekday PM Peak Hour of Adjacent Street Traffic (4-6 pm)
- Saturday Peak Hour of Generator (6-10 pm)

The weekday analyses were conducted using peak hour turning movement counts conducted on behalf of RS&H on Thursday, November 15, 2001, at the East Franklin Street and US 15-501 intersections only. No traffic counts were taken at the Driveway C and D intersections as part of the RS&H analysis. In lieu of actual counts, RS&H estimated the traffic volumes for Driveways C and D based upon assumptions about traffic patterns (i.e., distribution and assignment), estimates of traffic generated by the shopping centers, and the counts taken at the two signalized intersections.

RS&H presented their findings and recommendations to the Town in a report dated February 2002. In this report, RS&H recommended that both Driveways C and D be widened to 30 feet and marked to provide two exiting lanes and one entering lane to accommodate peak exiting traffic from the theaters.

On January 27, 2003, the Town Council of the Town of Chapel Hill adopted Resolution 2003-01-27/R-11a to approve the application for the Special Use Permit. This resolution included Stipulation No. 4, which required that the applicant (i.e., Eastern Federal Corporation and Triangle V II L.P.) improve Driveways C and D to 30-foot widths with separate exiting left and right turn lanes plus one entering lane as recommend by RS&H.

This stipulation also required that Driveways C and D intersect Elliott Road at a 90-degree angle if practical when they are reconstructed.

Eastern Federal did not have an executed cross access agreement with Ginn & Company that would be needed in order for Eastern Federal to make the required improvements to Driveway D. Therefore, Eastern Federal petitioned the Town of Chapel Hill to have the requirements that they improve Driveway D deleted from Stipulation No. 4 of the Town Council's resolution to approve the SUP application and also to have the application placed on expedited review.

Purpose of Re-evaluation

Given that the traffic engineering consultant retained by the Town of Chapel Hill to analyze the traffic impacts of the proposed theater redevelopment recommended the improvements to Driveway D to "accommodate peak exiting traffic at the theaters", Eastern Federal's petition to delete these improvements from Stipulation No. 4 raised serious concerns for the tenants of the adjoining Whole Foods shopping center and its owner, Ginn & Company. If the requisite improvements to Driveway D were not made, they feared that traffic generated by the proposed theater would negatively impact traffic circulation within the Whole Foods shopping center parking lot. They were also concerned that the Town of Chapel Hill and its consultant may not have thoroughly examined all of the potential traffic and parking impacts of the theater traffic on the adjacent Ginn & Company property.

Given that the theater parking lot would adjoin the Ginn & Company parking lot and considering that there is an existing physical vehicular connection between the two properties, preventing theater traffic from encroaching onto Ginn property and affecting parking and circulation would be difficult short of erecting an undesirable fence or barrier between the two properties. Ginn & Company is concerned that not examining and mitigating these potential adverse impacts as part of the Eastern Federal property redevelopment will threaten the economic well being of businesses within the Whole Foods shopping center.

To address these concerns, Faison & Gillespie, the counsel for Ginn & Company, retained PBS&J to perform a broader and more in-depth study of the potential impacts of the proposed theater redevelopment on access, parking and circulation. Major issues that PBS&J was asked to examine included the following:

1. **Assess the Necessity of the Originally Proposed Driveway D Improvements** - Evaluate, based on technical analyses, Eastern Federal's assertion that the improvements to Driveway D that were recommended by the Town of Chapel Hill's traffic consultant were actually optional and not necessary to maintain acceptable operating conditions and to provide adequate ingress/egress for the proposed theater.

2. **Expand the Scope of the Traffic Analyses to Consider All Critical Time Periods and All Elliott Road Driveways** - The original TIA conducted by RS&H for the Town provided a limited analysis of the potential traffic impacts of the proposed theater redevelopment. The TIA did not examine all of the time periods that are potentially critical from a traffic perspective when examining the impacts of a theater. Secondly, RS&H collected only limited traffic volume data for use in their analyses. Lastly, the RS&H TIA did not examine the impacts that the theater traffic might have

on all of the driveways along Elliott Road between East Franklin Street and US 15-501 (Fordham Boulevard).

a. Analysis Time Periods - The RS&H TIA analyzed the weekday AM and PM peak hours of adjacent street traffic--that is, the traditional weekday morning and late afternoon peak commuting traffic periods for Elliott Road, East Franklin Street and US 15-501 (Fordham Boulevard). Those are customary analysis periods for virtually any traffic impact analysis performed for any development in any locale. In addition, RS&H analyzed the Saturday PM peak hour of generator--that is, the period when the theater is generating the most traffic, typically between 6:00 pm and 10:00 pm.

While these are reasonable time periods to examine, they represent only one of the four time periods that are potentially critical when analyzing the impacts of a theater. In March 2001, the Institute of Transportation Engineers (ITE) published an informational report entitled *Trip Generation Characteristics of Traditional and Multiplex Movie Theaters*. This report stated the following four periods are the critical times for multiplex movie theaters such as the one proposed:

- Friday PM Peak Hour of Adjacent Street Traffic
  One hour between 4:00 pm - 6:00 pm
- Friday PM Peak Hour of Generator
  One hour between 6:00 pm - 10:00 pm
- Saturday Peak Hour of Adjacent Street Traffic
  One hour between 11:00 am - 1:00 pm
- Saturday Peak Hour of Generator
  One hour between 6:00 pm - 10:00 pm

The data and findings of this report have since been incorporated into *Trip Generation,* 7th Edition, which ITE published in 2003 (see Land Use Code 444, Movie Theater with Matinee and Land Use Code 445, Multiplex Movie Theater).

The RS&H TIA analyzed only one of these four critical periods for theaters, that being the Saturday peak hour of generator. While RS&H did analyze an average weekday PM peak hour of the adjacent street traffic, this analysis did not truly reflect actual Friday traffic conditions. This is because the RS&H analysis used adjacent street traffic that was counted on a Thursday combined with shopping center and theater traffic that they estimate using trip generation rates for an *average* weekday (i.e., average of data for various days, Monday through Friday). Friday traffic volumes are typically higher than all other weekdays and Fridays are by far the busiest weekday for a theater.

It is important to analyze all of these time periods. The analyst cannot simply assume that the peak traffic hour of the theater is the peak traffic period overall. The peak traffic period is that when the combination of traffic, theater and non-theater, is at its highest, which may or may not be the same as

the peak hour of the theater itself. This point is emphasized in two key Institute of Transportation Engineers documents as follows:

> "The time period(s) that provide the highest cumulative directional traffic demands should be used to assess the impact of site traffic on the adjacent street system and to define the roadway configurations and traffic control measure changes needed in the study area. The improvements will be based on the cumulative needs of these time periods," *Traffic Access and Impact Studies for Site Development*, 1991, p.8.
>
> "The time period that should be analyzed is the time period in which the combination of site-generated traffic and adjacent street traffic is at its maximum. Some land uses, however, do not peak at the same time as the adjacent streets (e.g., theaters, factory shift that ends at 3 P.M.). Therefore, the analyst should test combinations of generator volumes and street volumes at different times to determine a site's maximum, and most critical, impact, *"Trip Generation Handbook, October 1998, p.4, and Trip Generation Handbook, March 2001, p. 4.*

b. Traffic Counts - As previously mentioned, RS&H only performed turning movement counts at the two signalized intersections at E. Franklin Street and at US 15-501 (Fordham Boulevard). These prior counts were taken on a Thursday and on a Saturday night; no counts were taken on a Friday or during midday on Saturday. In order to analyze the critical theater traffic periods identified by ITE, the Friday and midday Saturday counts are needed. To more accurately assess the impacts of the theater, counts need to be taken at each driveway, A through F, during the critical time periods instead of just making assumptions about traffic volumes at these driveways as was done for Driveways C and D in the RS&H study. Therefore, the "missing" turning movement counts were collected as part of PBS&J's study.

c. Intersections Analyzed - The RS&H TIA only examined the impacts of theater traffic on the two major signalized intersections and Driveways C and D. It did not evaluate the impacts of theater traffic on the other shopping center driveways along Elliott Road, Driveways A, B, E and F. It is likely that some theater traffic will use these driveways, given the interconnection of the various parking lots. This is particularly true of Driveways B and E given their close proximity to the theater. Even if little or no theater traffic turns in and out of these driveways, theater traffic will be added to the through traffic stream passing in front of these driveways on Elliott Road and can impact the operations of the other driveways. Driveways A and F are already known to experience extended delays and congestion during peak traffic periods without the theater traffic. Therefore, this re-evaluation will investigate theater traffic impacts to all of the driveways along Elliott Road.

3. **Perform a More In-Depth Analysis of Potential Parking Impacts** - The original RS&H TIA did not provide a thorough evaluation of the potential parking impacts of

the proposed theater, especially the impacts upon the adjacent Ginn & Company parking lot. It simply compared the number of spaces proposed by the redevelopment with the number of spaces required by the Town with a reduction for shared parking. The original TIA did not investigate whether the parking spaces that the theater needed would actually be available (unoccupied) during the times when they would be needed. A parking occupancy study is needed to determine the actual availability of parking and where those spaces are located in relation to the theater.

The adjacent Whole Foods parking lot is known to have high occupancy rates during many hours of the day on Friday and Saturday. These peak parking occupancy periods in the Whole Foods lot may coincide with the peak parking demand times for the theater. Encroachments by theater patrons during such periods could have adverse economic impacts on Whole Foods and adjacent business since their parking spaces typically turnover within one hour or less. By contrast, a theater patron would occupy the space for two hours or more. Theater patrons are likely to attempt to use the Whole Foods parking lot given its close proximity to the theater and the interconnection of the parking lots. In fact, many of the Whole Foods spaces are as close or closer to the theater than are many spaces in the Mark Properties lot that are being counted to fulfill the theaters parking requirements. A parking occupancy study to investigate this concern will be conducted as part of PBS&J's re-evaluation.

4. **Examine Potential Impacts of Theater Traffic on Ginn & Company Parking Lot Circulation** - PBS&J will perform a qualitative assessment of potential theater traffic impacts on circulation within the Whole Foods parking lot. In addition, PBS&J will perform a cursory examination of the overall circulation within the interconnected lots to identify any potential deficiencies and concerns.

II. EXISTING CONDITIONS

Study Area Roadways and Intersections

Section I provided a description and overview of the study area. The existing lane configurations for each of the intersections along Elliott Road from East Franklin Street to US 15-501 (Fordham Boulevard) inclusive are illustrated on **Figure 3**. This figure also indicates the type of traffic control (i.e., stop sign or traffic signal) at each intersection. The traffic signal at the intersection of Elliott Road and East Franklin Street is an 8-phase, fully-actuated, isolated traffic signal; that is, the signal does not operate in coordination with any other nearby signal(s). The 4-phase traffic signal at the intersection of Elliott Road and US 15-501 (Fordham Boulevard) is part of an existing coordinated traffic signal system along US 15-501. All other intersections are stop controlled with stop signs on the side street/driveway and free-flowing traffic on Elliott Road. The posted speed limit on Elliott Road is 25 mph.

Although the existing Village Plaza theater was demolished in Fall 2003 and a construction fence has secured the site, Driveway C on the Eastern Federal property is still open and operational. Eastern Federal maintained the existing physical interconnections between the Eastern Federal property and the parking lots of the adjacent shopping centers owned by Ginn & Company and by Mark Properties. The Eastern Federal parking spaces along the Elliott Road property line and its circulation aisle have also been maintained.

Data Collection

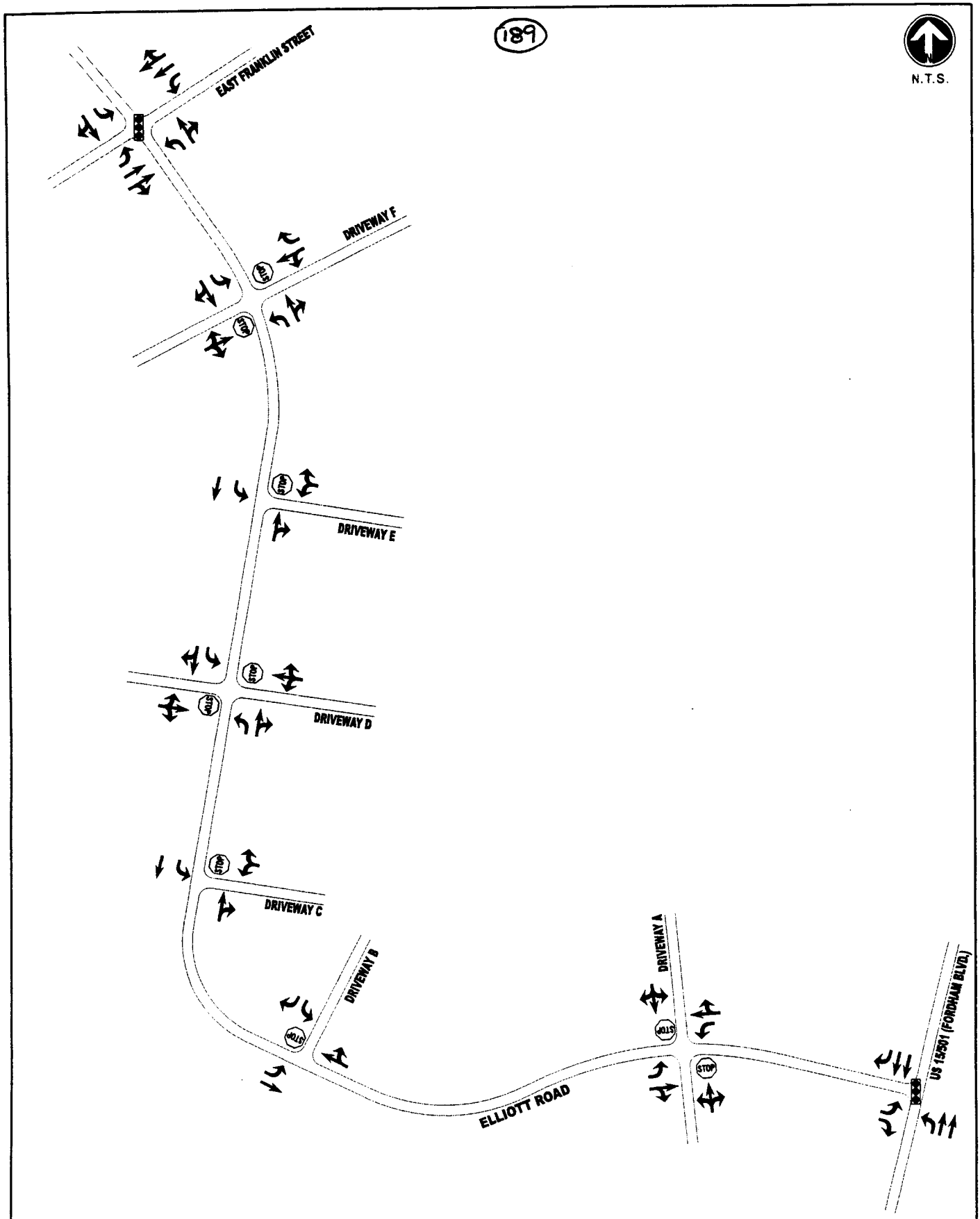
PBS&J performed Friday and Saturday intersection turning movement counts at each of the study area intersections along Elliott Road. The following Elliott Road intersections were counted:

- US 15-501 (Fordham Boulevard)
- Driveway A (Spa Health Club/Burger King)
- Driveway B (Mark Properties)
- Driveway C (Eastern Federal)
- Driveway D (Red Hot and Blue - theater side)
- Driveway E (Red Hot and Blue - Whole Foods side)
- Driveway F (Whole Foods)
- East Franklin Street

Three additional driveways that serve a day care center, the Galleria/Senior Center and an office building on the opposite side of Elliott Road were also counted.

For consistency and continuity of traffic volumes along Elliott Road, all of the intersections were counted simultaneously. Care was taken to select dates for the traffic counts that would be representative of average, typical traffic conditions. The following days were considered to have atypical traffic conditions (i.e., traffic volumes significantly less than or greater than average) and, thus, were ruled out as potential count dates:

- Saturdays of a University of North Carolina (UNC) men's home basketball game
- Fridays when public schools were not in regular session (i.e., holidays, breaks, teacher workdays)
- Fridays and Saturdays of holiday weekends



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: EXISTING INTERSECTION LANE CONFIGURATIONS	Figure 3

- Fridays and Saturdays when UNC classes were not in session on that Friday or immediately following Monday

Carolina Traffic Services, a traffic survey firm based in Concord, North Carolina, performed intersection turning movement counts on behalf of PBS&J on the following dates and times:

- Friday, February 13, 2004, 4:00 pm - 6:00 pm
- Saturday, February 14, 2004, 11:00 am - 3:00 pm and 5:00 pm - 9:00 pm

A total of 10 hours of data was collected for each intersection. The peak hour traffic volumes for each of day and time period are summarized on **Figure 4**.

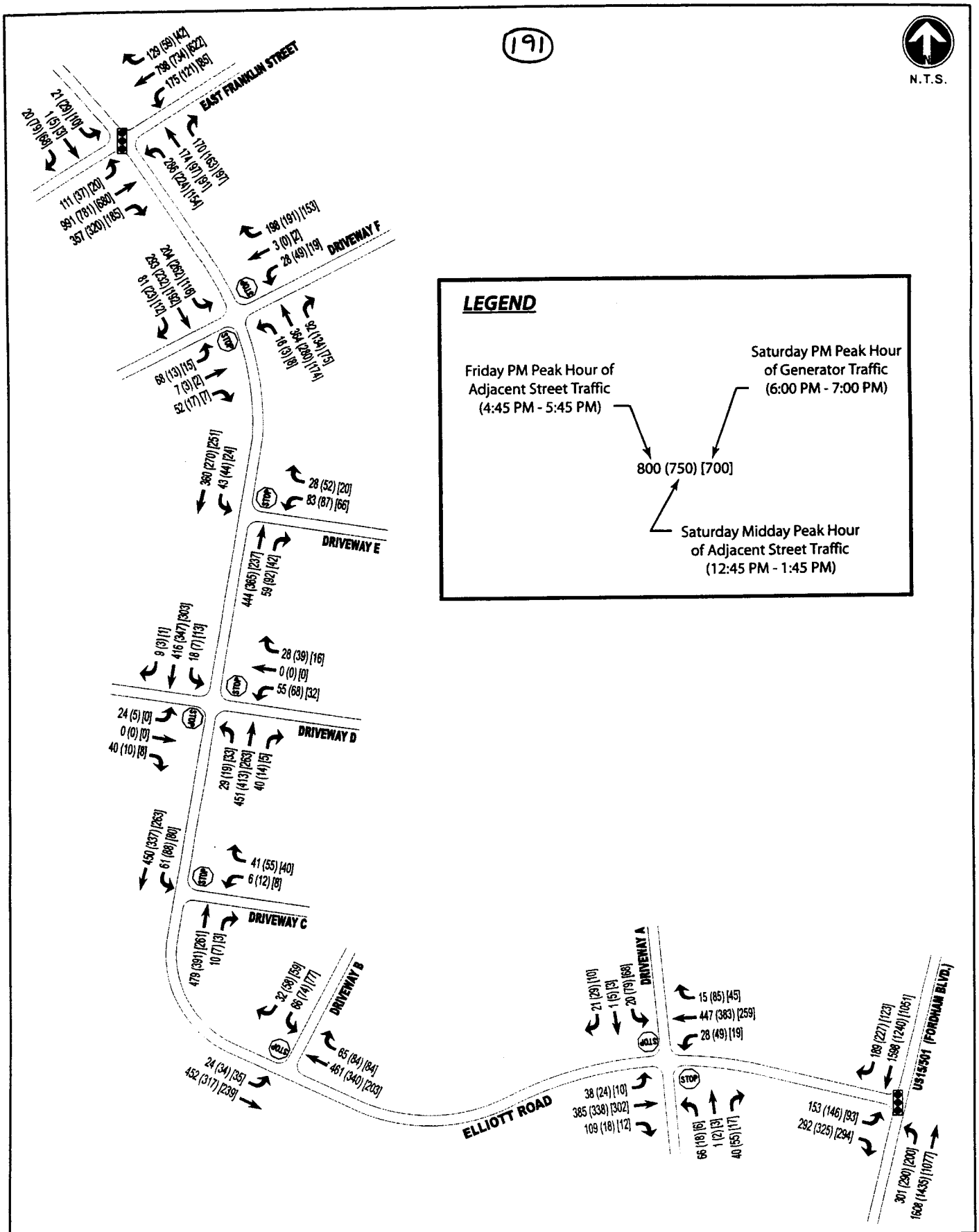
Analysis

The traffic analysis is based on the level-of-service (LOS) at the identified intersections. Level-of-service (LOS) is determined by the computed or measured control delay. The Transportation Research Board's *Highway Capacity Manual*[1], 2000 (HCM 2000) defines six levels-of-service for intersections, with LOS "A" representing the best operating condition and LOS "F" the worst. Exhibit 16-2 of the HCM gives the criteria for signalized intersections and Exhibit 17-2 gives the criteria for obtaining LOS per approach under two-way stop control (see **Table 4** below). For two-way stop-controlled intersections "LOS is not defined for the overall intersection"[2].

Table 4
HCM LOS Criteria

EXHIBIT 16-2. LOS Criteria for Signalized Intersections			EXHIBIT 17-2. LOS Criteria for Two-Way Stop Control Intersections	
Intersection Level-of-Service	Control Delay per Vehicle (sec/veh)		Approach Level-of-Service	Average Control Delay (sec/veh)
A	≤ 10		A	0-10
B	> 10-20		B	> 10-15
C	> 20-35		C	> 15-25
D	> 35-55		D	> 25-35
E	> 55-80		E	> 35-50
F	> 80		F	> 50

[1] National Research Council. Transportation Research Board. Highway Capacity Manual, HCM 2000 Edition, Washington, DC. 2000. Chapters 16 and 17.
[2] National Research Council. Transportation Research Board. Highway Capacity Manual, HCM 2000 Edition, Washington, DC. 2000. Chapter 17, page 17-1.



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: 2004 PEAK HOUR INTERSECTION TURNING MOVEMENT COUNTS	Figure 4

The *Chapel Hill Mobility Report Card*, a report prepared for the Town of Chapel Hill in May 2002, provides additional qualitative descriptions of the various levels of service as shown in **Table 5**. According to the Mobility Report Card, "the Town of Chapel Hill's standard for acceptable level of service is LOS D or better," p. 5.

Table 5
Level of Service Characteristics For Chapel Hill

	← Chapel Hill Standards →				Below Town Standards	
	A	B	C	D	E	F
Intersection Delay (control delay per vehicle, sec)	<10	>10 and <20	>20 and <35	>35 and <55	>55 and <80	>80
Arterial Volume/ Capacity Ratio	<0.6	0.6-0.7	0.7-0.8	0.8-0.9	0.9-1.0	>1.0
Maneuverability	Almost Completely Unimpeded	Only Slightly Restricted	Noticeably Restricted	Severely Limited	Extremely Poor	Almost None
Driver Comfort	High	High	Some Tension	Poor	Extremely Poor	The Lowest
Average Traveling Speed	Speed Limit	Close to Speed Limit	Close to Speed Limit	Some Slowing	Significantly Slower than Speed Limit	Significantly Slower than Speed Limit

Source: Chapel Hill Mobility Report Card, May 2002, LSA Associates, Inc.

PBS&J used the Highway Capacity Software (HCS) which replicates the methodologies and procedures of the HCM 2000 for the computerized analysis of signalized and unsignalized intersections. For the signalized intersection analyses, PBS&J used the actual traffic signal timings that were obtained from the Town of Chapel Hill. **Table 6** summarizes the results of the analyses of the unsignalized intersections for the existing 2004 conditions. **Table 7** summarizes the results of the analyses of the two signalized intersections in the study area for 2004. With exception of the eastbound approach (i.e., First Citizens) to the Driveway F intersection, all unsignalized intersection approaches currently operate at LOS D or better, with many operating at LOS B or C. The eastbound approach to the Driveway F intersection operates at LOS F during the PM peak hour of Elliott Road, but operates at LOS D or better during the other two time periods analyzed. The westbound approach to this same intersection operates at LOS D or better as a whole, but the westbound shared left-plus-through lane operates at LOS F during the Friday PM peak for Elliott Road as well as Saturday midday.

Table 7
Existing (2004) Signalized Intersection Levels of Service

Elliott Road Intersection Name	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
US 15-501 (Fordham Blvd.)						
NB US 15-501	C	28.0	C	26.8	C	21.1
SB US 15-501	E	63.8	D	38.7	C	33.2
EB Elliott Road	D	43.8	D	35.9	C	32.4
Overall Intersection	D	45.2	C	32.7	C	27.6
East Franklin Street						
NB Elliott Road	F	157.9	F	84.1	D	44.5
SB Elliott Road	D	37.5	D	36.7	D	36.8
EB Franklin St.	F	102.5	D	44.5	C	30.1
WB Franklin St	C	31.9	C	26.5	C	24.1
Overall Intersection	F	86.4	D	44.9	C	30.7

III. 2006 BACKGROUND TRAFFIC CONDITIONS

Build-out Year

The Town Council resolution to approve application for the Special Use Permit for theater redevelopment stipulated that construction begin no later than January 27, 2005, and be completed by January 27, 2006. Therefore, 2006 has been selected as the build-out year of the theater for traffic analysis purposes.

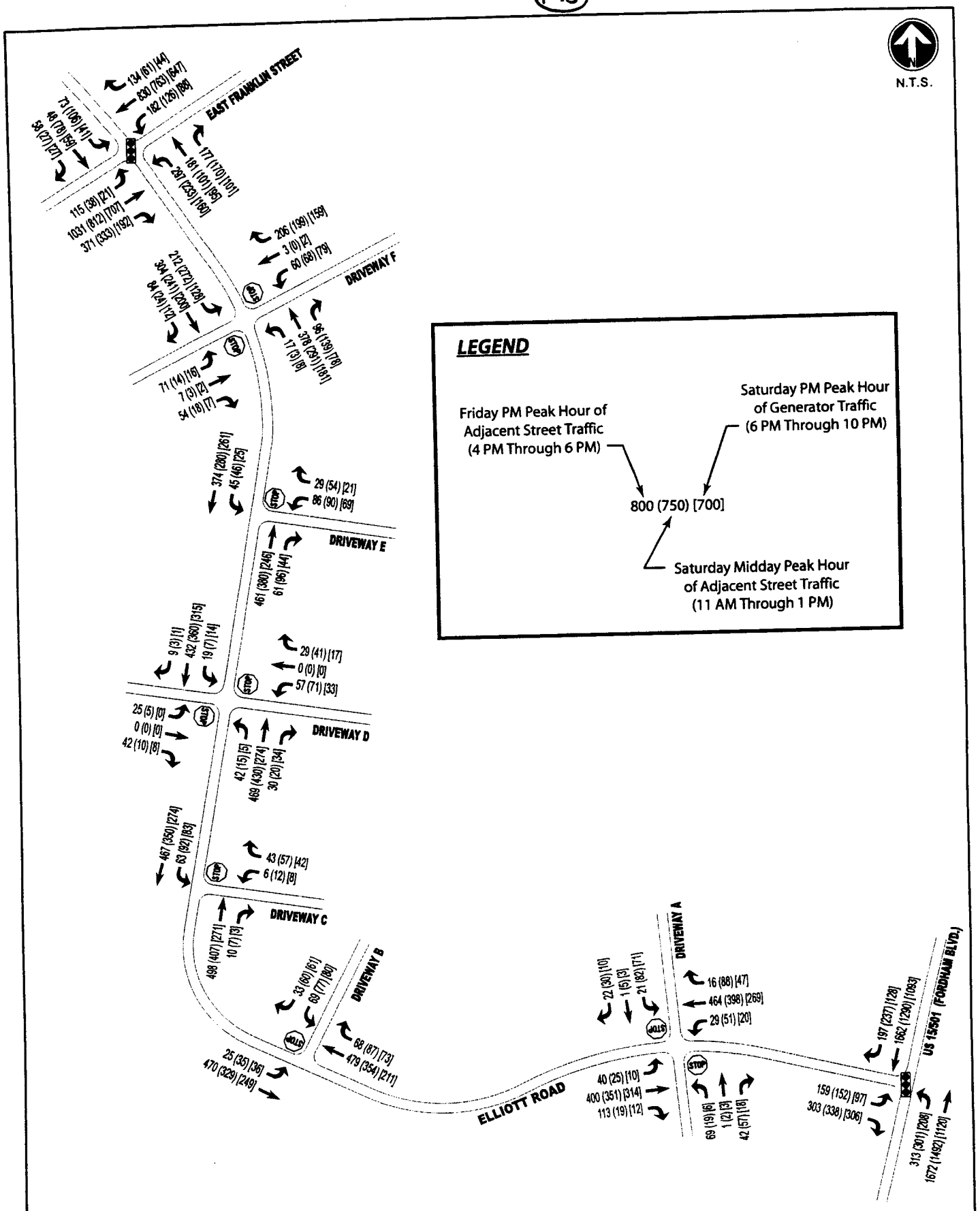
Background Traffic

Background traffic is traffic that would be present on Elliott Road and the various driveways in the build-out year (2006) even if the proposed theater is not built. It may simply be thought of as the non-theater for this project or the "no-build" traffic. Background traffic is comprised of Elliott Road through traffic and traffic generated by the adjacent land uses. Analyzing the study area intersections using the background traffic establishes a baseline for comparison with various build scenarios. Comparing the analysis results of a particular build scenario (i.e., background-plus-theater traffic scenario) with the results of the background traffic analysis reveals the magnitude to which traffic generated by the proposed theater will impact the performance of the study area intersections.

The 2004 peak hour traffic volumes were factored by a modest annual growth rate of 2% per year to estimate the 2006 background traffic volumes. This nominal growth rate acknowledges that there will be some "natural" increases in traffic volumes along Elliott Road over the next two years without redevelopment of the theater site. However, the Elliott Road corridor between East Franklin Street and US 15-501 (Fordham Boulevard) is essentially built out, and Elliott Road ends at US 15-501. Therefore, it is not reasonable to expect large rates of growth in traffic on this segment of Elliott Road. The background traffic does not explicitly include traffic generated by any projects outside of the study area, which have been approved but were not constructed when the counts were taken in February 2004. **Figure 5** displays the estimated 2006 peak hour intersection turning movement volumes for each of the study area intersections.

Analysis

No improvements are planned for any of the study area driveways at this time other than those proposed under the theater redevelopment plans. Therefore, the background analyses used the same intersection lane configurations and controls (including signal timing) as the existing conditions (2004) analyses (see **Figure 3** for lane configurations). The results of the unsignalized intersection analyses are summarized in **Table 8**, and the results of the analyses of the two signalized intersections are reported in **Table 9**. Most of the unsignalized intersections continue to operate at LOS D or better. However, the northbound and southbound approaches to the Driveway A intersection fall to LOS E during one time period each. In addition, the eastbound approach to the Driveway F intersection falls to LOS E during Saturday midday. Although delays do increase at both signalized intersections, there are no changes in the signalized intersection levels of service from the existing 2004 conditions for any of the time periods.



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: 2006 ESTIMATED BACKGROUND TRAFFIC	Figure 5

Table 8
2006 Background Traffic Unsignalized Intersection Levels of Service

Elliott Road Intersection Name	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
Driveway A						
NB LTR	**E**	36.6	C	16.2	B	12.3
SB LTR	C	23.0	**E**	39.1	C	18.6
EB L	A	8.5	A	8.5	A	7.9
WB L	A	8.5	A	8.2	A	8.0
Driveway B						
SB L	**D**	27.1	C	19.5	**C**	17.7
SB R	B	12.1	B	11.3	B	10.1
SB Approach	*C*	*22.3*	*C*	*15.9*	*B*	*13.1*
EB L	A	8.7	A	8.4	A	8.0
Driveway C						
SB L	A	8.7	A	8.5	A	8.1
WB LR	B	13.8	B	13.4	B	11.3
Driveway D						
NB L	A	8.4	A	8.1	A	8.0
SB L	A	8.5	A	8.3	A	8.0
EB LTR	C	20.0	B	14.0	B	10.2
WB LTR	D	33.1	C	22.1	**C**	15.1
Driveway E						
SB L	A	8.7	A	8.5	A	8.0
WB LR	**D**	25.1	C	19.8	B	14.5
Driveway F						
NB L	A	8.1	A	7.8	A	7.7
SB L	A	9.2	A	9.3	A	8.1
EB LTR	F	259.9	**E**	37.0	C	19.2
WB LT	F	93.1	F	70.2	C	21.4
WB R	B	14.0	B	12.8	B	10.6
WB Approach	*D*	*32.5*	***D***	*27.4*	*B*	*14.3*

NOTE: LOS letters shown in bold font and underscored indicate a lowering of level of service from existing 2004 conditions.

Table 9
2006 Background Traffic Signalized Intersection Levels of Service

Elliott Road Intersection Name	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
US 15-501 (Fordham Blvd.)						
NB US 15-501	C	29.7	C	28.1	C	21.5
SB US 15-501	E	75.8	D	41.3	C	34.2
EB Elliott Road	D	44.5	D	36.3	C	28.2
Overall Intersection	D	51.3	C	34.3	C	28.2
East Franklin Street						
NB Elliott Road	F	174.4	F	92.5	D	46.4
SB Elliott Road	D	37.7	D	37.5	D	36.9
EB Franklin St.	F	120.1	D	51.7	C	31.0
WB Franklin St	C	33.5	C	27.2	C	24.5
Overall Intersection	F	97.6	D	49.7	C	31.6

NOTE: LOS letters shown in bold font and underscored indicate a drop in the level of service from existing 2004 conditions.

IV. 2006 BACKGROUND + DEVELOPMENT TRAFFIC CONDITIONS

Trip Generation

PBS&J estimated traffic that would be generated by the proposed 10-screen multiplex theater using the rates and procedures found in the Institute of Transportation Engineers (ITE) *Trip Generation*, 7th Edition, and *Trip Generation Handbook*, March 2001. The 7th Edition of *Trip Generation* was published in 2003 and supersedes the 6th Edition used in 2002 by RS&H for the original TIA. The 7th Edition includes data and trip generation rates for a new land use, Multiplex Movie Theater (ITE Land Use Code 445). A multiplex theater has a minimum of 10 screens, shows first-run movies and often has amenities such as digital sound and stadium seating. With the 7th Edition, ITE also added new critical time periods for theater data, including the Friday PM peak hours of adjacent street traffic and generator and the Saturday peak hour of adjacent street traffic.

The original TIA used Land Use 444, Movie Theater with Matinee. In the 6th Edition of *Trip Generation*, the trip generation rates, graphs and equations for Land Use 444 were based on a mixture of data that included both traditional theaters and multiplex theaters. For the 7th Edition, ITE reclassified the data for Land Use 444 to take out the multiplex theater data and put it into the new Land Use 445.

The proposed theaters more closely resemble the description of Land Use 445, Multiplex Movie Theater, than they do the description of Land Use 444, Movie Theater with Matinee. In addition, the rates for Land Use 445 during the critical Friday and Saturday time periods are based on data from far more studies than are the rates for Land Use 444. Lastly, there is no trip generation information available for Land Use 444 during the Saturday peak hour of adjacent street traffic like there is for Land Use 445. Therefore, PBS&J selected Land Use 445, Multiplex Movie Theater, as the most appropriate source of trip generation rates to estimate traffic for the new theaters.

ITE provides trip generation rates, equations and graphs as a function of the following independent variables: seats, gross square footage, and movie screens. The step-by-step procedure for selecting the most appropriate independent variable and for choosing whether to use the weighted average trip rates, fitted-curve equation or graphs is found in Chapter 3 of the ITE *Trip Generation Handbook*. Using this ITE procedure, PBS&J determined that it would be most appropriate to generate trips using movie screens as the independent variable and using the weighted average trip rates instead of the fitted curve equations or data plots. A printout of the spreadsheet created to aid in this selection process may be found in the Appendix.

As discussed in Section 1 of this report, there are four critical time periods, two on Friday and two on Saturday, which need to be considered when assessing the impacts of a proposed theater. PBS&J generated trips for each of these peak times of the adjacent street traffic and the generator (i.e., theater). The resulting trip generation for the proposed 10-screen multiplex theater is summarized **Table 10**. For the same reasons as and for consistency with the original RS&H TIA, no reductions were made for pass-by trips, internal capture, and modal split for this study.

Table 10
Trip Generation

ITE Land Use Code 445: Multiplex Movie Theater						
Independent Variable: Movie Screens			Size of Independent Variable: 10			
Time Period	**Average Trip Rate** (per movie screen)	**Directional Distribution**		**Average Trips** (vehicles)		
		Entering	Exiting	Total	Entering	Exiting
Friday PM Peak Hour of Adjacent Street Traffic (between 4 and 6 pm)	23.02	60%	40%	230	138	92
Friday PM Peak Hour of Generator (between 6 and 10 pm)	62.89	57%	43%	629	359	270
Saturday Peak Hour of Adjacent Street Traffic (between 11 am and 1 pm)	19.97	72%	28%	200	144	56
Saturday Peak Hour of Generator (between 6 pm - 10 pm)	69.14	52%	48%	691	359	332

Source: *Trip Generation*, 7th Edition, 2003, Institute of Transportation Engineers, Washington, DC

Multiplex movie theater trip generation (Land Use 445) has been generally lower than traditional movie theater trip generation (Land Use 444) based on currently available studies. However, the multiplex movie theater database is still relatively small. The trip generation rates used in Table 10 are based on data from no more than 16 studies nationwide conducted during the 1990s. In addition, with only 10 screens, the proposed Eastern Federal multiplex just barely qualifies for the lower-trip-rate Land Use 445. The average number of movie screens in the studies used to derive the multiplex theater trip generation rates ranged from 17 to 20 for the time periods in Table 10. Meanwhile, the average number of screens for the higher-trip-rate Land Use 444 was 7 screens for the same time periods. Hence, it is conceivable that the proposed 10-screen theater may exhibit some of the higher-trip-rate characteristics of Land Use 444 and have a trip rate somewhere between the two land uses.

It is also important to recognize that the trip rates and computed number of trips in Table 10 represent average theater conditions and not peak theater operations. The database from which these trip rates were derived explicitly excluded data from holiday peak periods (i.e., Thanksgiving and Christmas, Summer vacation season) (see *Trip Generation*, 7th Edition, 2003, ITE, p. 780). ITE also reviewed the data to ensure that no "blockbuster" movies were showing when the data was collected (see *Trip Generation Characteristics of Traditional and Multiplex Movie Theaters*, 2001, ITE, p. 3). Therefore, the trip generation procedures and rates used for this analysis, if anything, would tend to understate traffic for the proposed

theater rather than overstate it. The showing of "blockbuster" movies at the proposed theaters and the traditional peak theater operations between Thanksgiving and New Years would generate much larger traffic volumes than what is shown in Table 10.

Analysis Scenarios

Given the present uncertainties associated with vehicular cross access between Eastern Federal and the adjoining properties, four scenarios of cross access and driveway usage by theater traffic were analyzed. A brief description of each analysis scenario is provided below and a summary of each is provided in **Table 11**.

Scenario 1:

- Vehicular cross access exists between Eastern Federal and Ginn & Company as well as between Eastern Federal and Mark Properties as it does today.
- Driveway C is improved to two exiting lanes as proposed in SUP
- Driveway D is left as it is currently without the improvements proposed in the SUP
- Theater traffic uses all driveways except F (i.e., A through E)
- See the upper **Figure 6a** for the lane configurations at Driveways C and D under Scenario 1.

Scenario 2:

- Identical to Scenario 1 except that Driveway D is improved to two exiting lanes as proposed in the SUP.
- See **Figure 6b** for the lane configurations at Driveways C and D under Scenario 2.

Scenario 3:

- Vehicular cross access exists between Eastern Federal and Mark Properties as it does today. However, vehicular cross access between Eastern Federal and Ginn & Company is restricted due to absence of cross-access agreement.
- Driveway C is improved to two exiting lanes as proposed in SUP
- Driveway D is left as it is currently without the improvements proposed in the SUP
- Theater traffic uses Driveways A through C only.

Scenario 4:

- No vehicular cross access between the theater and either Ginn & Company or Mark Properties. Vehicular cross access between Eastern Federal and Ginn & Company is restricted due to absence of cross-access agreement. Mark Properties invokes the clause in their cross-access agreement with Eastern Federal to restrict cross access and parking by theater patrons on the Triangle V II property.
- Driveway C is improved to two exiting lanes as proposed in SUP
- Driveway D is left as it is currently without the improvements proposed in the SUP
- Theater traffic uses Driveway C only.

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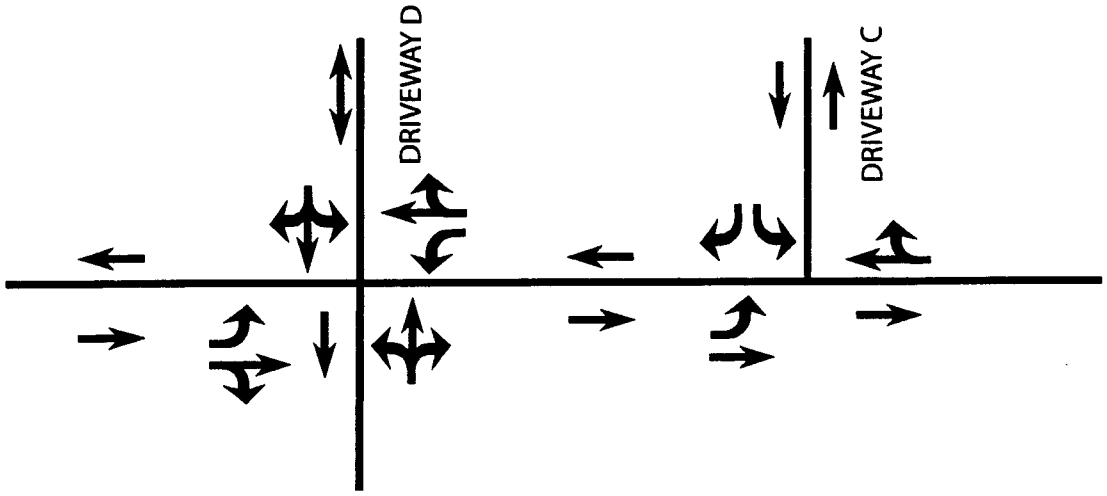
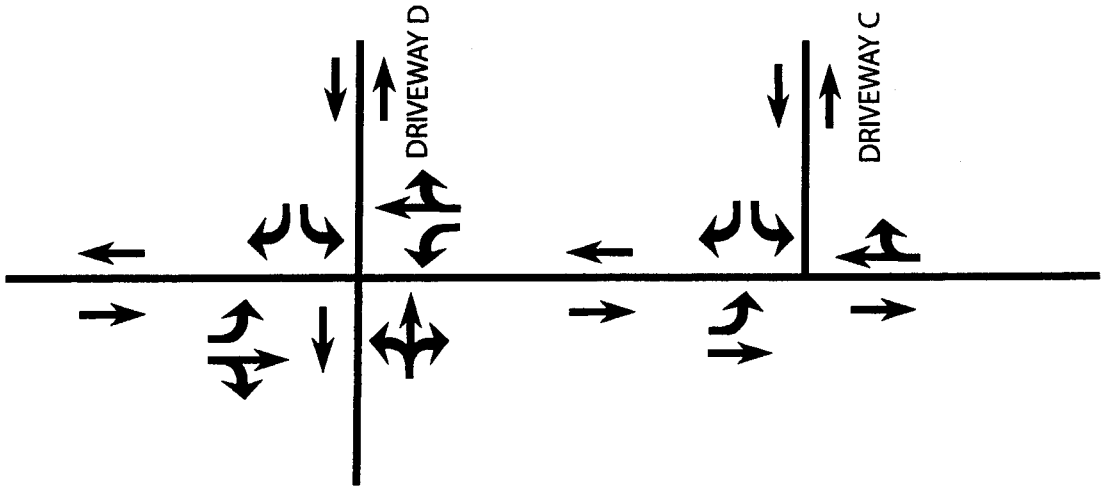
- A -

N.T.S.



SCENARIOS 1, 3, & 4

- B -



SCENARIO 2

PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: PROPOSED LANE CONFIGURATIONS DRIVEWAYS C & D	Figure 6

Table 11
Summary of Analysis Scenarios

Scenario	Eastern Federal Vehicular Cross Access	Theater Traffic Assigned to Driveways:					
		A	B	C	D	E	F
1	Ginn and Mark	✓	✓	✓	✓	✓	
2	Ginn and Mark	✓	✓	✓	✓	✓	
3	Mark Only	✓	✓	✓			
4	None			✓			

Trip Distribution

Theater traffic was distributed to the roadways external to the site using the trip generation percentages shown in **Figure 7**. This distribution pattern was based upon a review of the existing trip distribution patterns indicated by the various intersection turning movement counts collected during this study.

Trip Assignment

For each analysis scenario, PBS&J used a logical procedure for assigning theater traffic to the various Elliott Road driveways that considered the following factors:

- External trip distribution to East Franklin Street and US 15-501 (Fordham Boulevard)
- Location of driveway relative to East Franklin Street and US 15-501 (Fordham Boulevard)
- Proximity of the driveway to the theater
- Travel distance from the driveway to the theater box office
- Location of parking relative to the driveway
- Physical interconnectivity of the parking lots of the adjoining properties

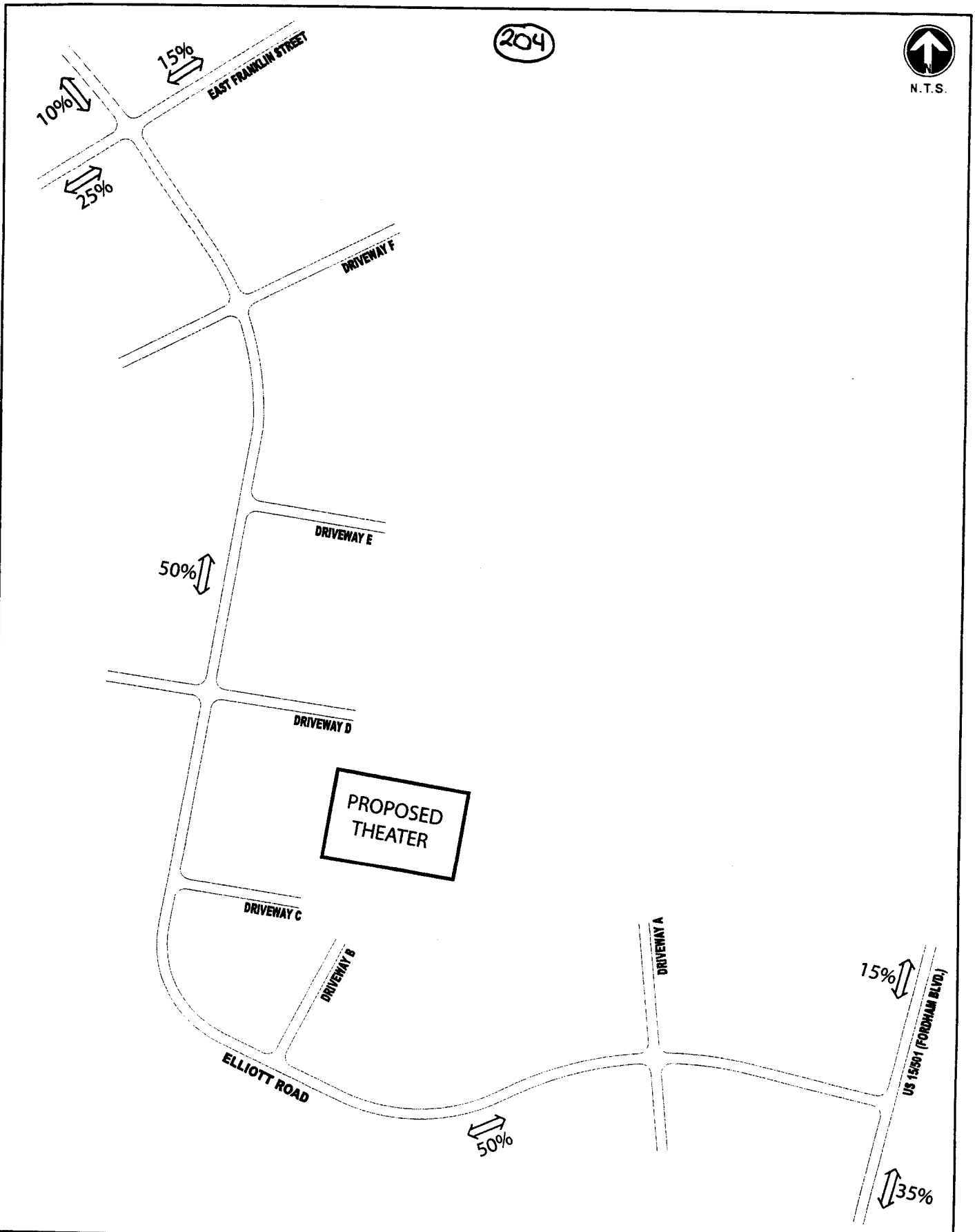
"When the site has more than one access driveway, logical routing and possibly multiple paths should be used to obtain realistic driveway volumes," *Traffic Access and Impact Studies for Site Development*, 1991, Institute of Transportation Engineers, p.30. For this study, the "site" as referred to in the preceding sentence needs to be considered the combination of the three properties that front the theater side of Elliott Road (Ginn & Company, Eastern Federal, and Mark Properties), given the physical interconnectivity of their parking lots. When such vehicular cross access points exists, the motorist does not perceive property lines but rather tends to view it as a common site. The average motorist does not decide against using a nearby driveway on property "A" to get to and from a business on property "B" because he/she recognizes they are on different properties. That decision is based upon what appears to them to be the most logical and expedient route, regardless of property lines.

Logically, Driveway C on the Eastern Federal property would be assigned the heaviest volume of theater traffic under any of the analysis scenarios due to the drop-off/pick-up lane and the fact the it is the entrance closest to the theater building. However, motorists can certainly be expected to use the other driveways as well in the absence of any physical barrier that prevents them from doing so. The specific assignments of theater traffic to the various driveways under each analysis scenario are discussed in the paragraphs that follow. The

general traffic assignment by driveway for each scenario is summarized in **Table 12** and discussed in the paragraphs that follow.

Table 12
Theater Traffic Assignments by Driveway & Scenario

Scenario	Eastern Federal Vehicular Cross Access	Theater Traffic Assigned to Driveways:					
		A	B	C	D	E	F
1	Ginn and Mark	3%	21%	50%	20%	6%	0%
2	Ginn and Mark	3%	21%	50%	20%	6%	0%
3	Mark Only	5%	30%	65%	0%	0%	0%
4	None	0%	0%	100%	0%	0%	0%



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: EXTERNAL TRIP DISTRIBUTION	Figure 7

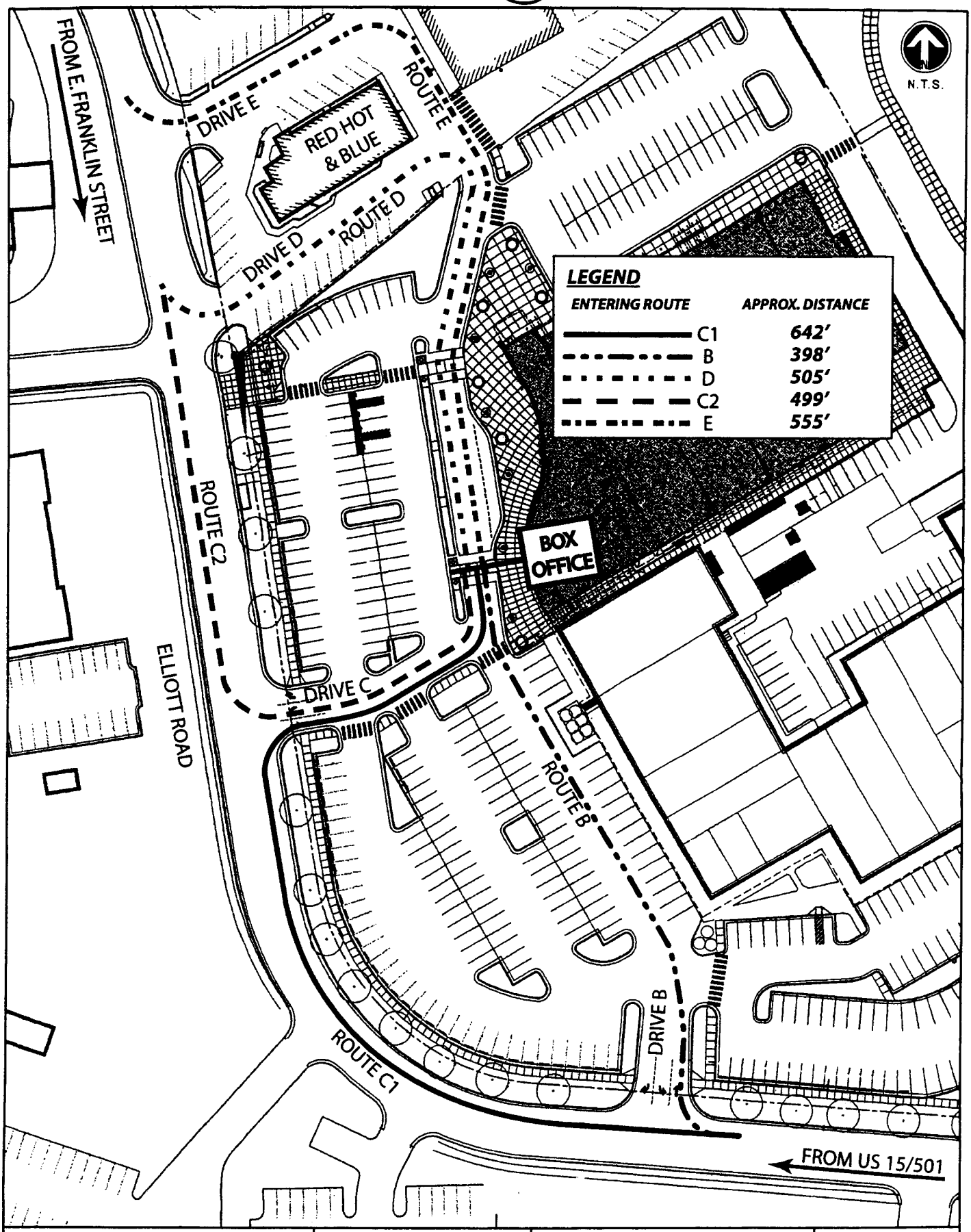
Scenarios 1 and 2

The assignment of theater traffic to the various driveways is the same for both Scenario 1 and Scenario 2. The only difference between these two scenarios is the lane configuration for Driveway D (i.e., whether or not Driveway D is improved), which does not affect the assignment. Motorists will choose to use Driveway D because of its proximity to the theater and its parking, not because of improvements to it. The improvements are needed as a response to the increased traffic demand.

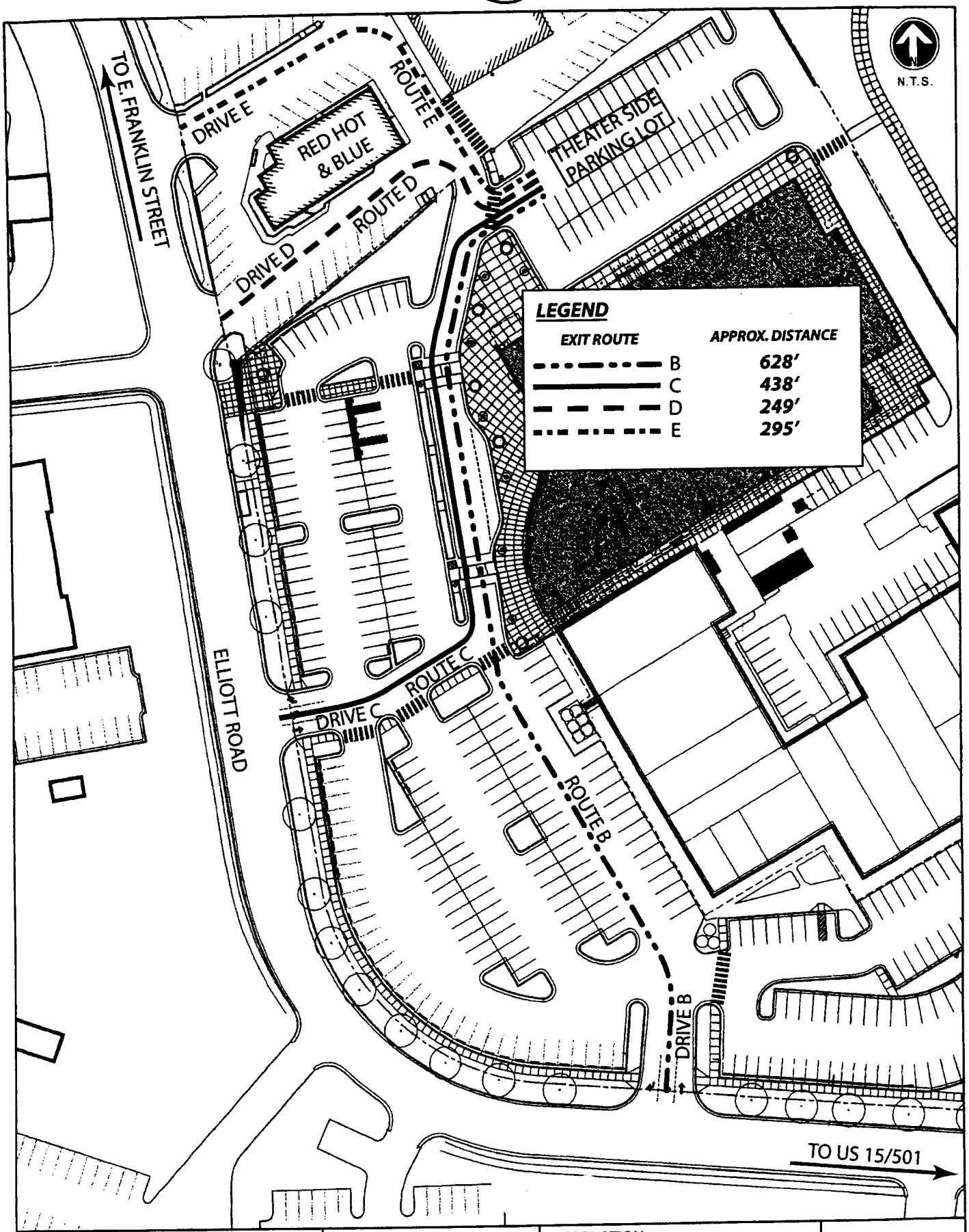
Theater traffic under these scenarios was assigned to all of the driveways along Elliott Road except for Driveway F (i.e., A though E) as shown in **Figure 10**. Almost all of the traffic (91%) was assigned to Driveways B through D, the driveways in closest proximity to the theater and its parking. Half of the theater traffic was assigned to Driveway C, the main theater driveway located on the Eastern Federal property. A nominal amount of theater traffic (3%) was assigned to Driveway A to acknowledge that some theater traffic will use this driveway, although the volume is expected to be small. Driveway A is far removed from the theater frontage, but is does provide a "back door" route to and from the parking lot proposed for the north side of the new theater.

The assignment of traffic between Driveways B, C, D and E was made in part based upon a comparison of rough travel distances to and from critical points on the theater site along routes that began or ended at each of these four driveways. **Figures 8 & 9** provide an illustrative comparison of the approximate vehicle travel distances of traffic approaching the theater using various routes. **Figure 8** compares two choices of routes that a theater-bound motorist has when the reach Driveway B when approaching from US 15-501 or when they reach Driveway D when approaching from East Franklin Street using the box office as the ultimate destination. Such theater-bound motorists have the choice of either turning into Driveway C or D or continuing to travel on Elliott Road to turn in at Driveway C. A motorist from Franklin Street that turns into Driveway D to follow Route D will travel almost the same distance to the box office as another motorist who chooses to continue down to Driveway C and follow Route C2. Route D is only 5 feet longer than Route C2. A motorist from US 15-501 who opts to travel down to Driveway C along Route C1 will travel approximately 244 feet further than he/she would have if he/she had turned into Driveway B and followed Route B.

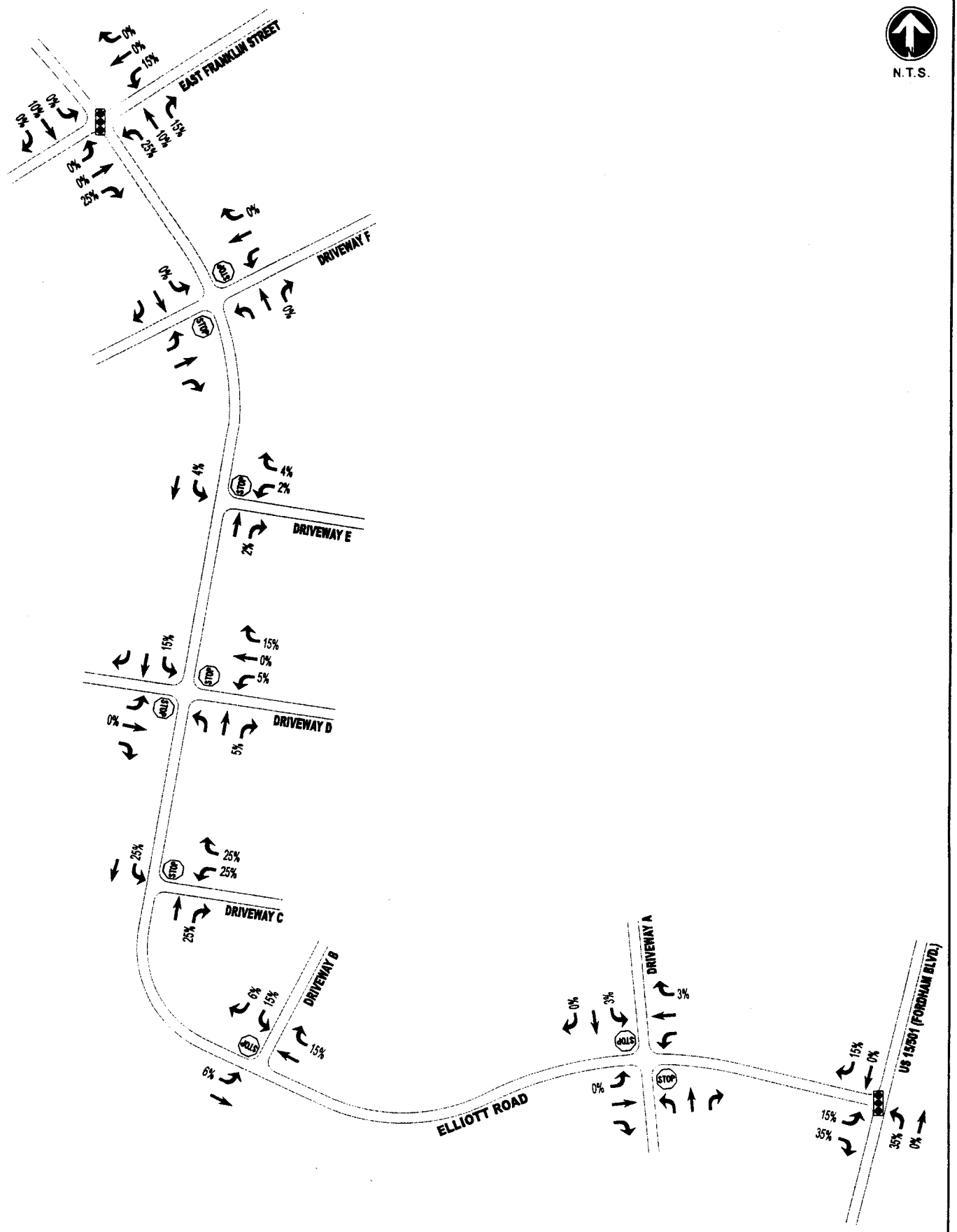
Figure 9 compares the routes that a motorist exiting the Eastern Federal parking lot on the side of the theater will have to choose from in order to reach Elliott Road. As can be seen from this figure, by far the shortest and most direct route to Elliott Road is Route D to Driveway D. Route C to Driveway D is 75% (189') longer than Route D, and Route B to Driveway B is 2.5 times longer than Route D. In fact, both Driveways D and E on the Ginn & Company property are significantly closer to this Eastern Federal parking lot than the Driveway C on the Eastern Federal property. It should also be noted that the design of the drop-off/pick-up lane in front of the theater will encourage motorists to exit via the Ginn & Company Property. It is a "straight shot" out of this drop-off/pick-up lane into the Ginn & Company parking lot. By contrast, a motorist would have to make several turns, circumnavigate the theater parking lot and contend with cars pulling in and out of theater parking spaces to exit via Driveway C. Furthermore, the proposed design of the drop-off/pick-up lane provides no visual queue to the motorist that he/she should do anything other than exit via the Ginn & Company property.



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: COMPARATIVE TRAVEL DISTANCES TO BOX OFFICE FOR ENTERING THEATER TRAFFIC	Figure 8



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: COMPARATIVE TRAVEL DISTANCES TO ELLIOTT ROAD FOR EXITING THEATER TRAFFIC	Figure 9



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: SCENARIOS 1 & 2 THEATER TRAFFIC ASSIGNMENT	Figure 10

It is quite logical, based on these distances, a qualitative review of the site plans, and consideration of how the driveways are situated relative to the theater parking, that a substantial amount of theater traffic will use Driveway D located on the Ginn & Company property, and that a lesser amount will use Driveway E. This will be especially true of exiting traffic since many theater patrons can use these exit routes to avoid the congestion in the theater parking lots between shows and avoid having to crossover entering theater traffic. PBS&J assigned 20% of the theater traffic to Driveway D and 6% to Driveway E. This assignment is considerably less than the assignment in the original RS&H TIA. Figure 7 of the RS&H TIA assigned 64-69% of the theater traffic (75% of entering traffic, 47-62% of the exiting traffic) to Driveway D. RS&H assigned the remaining 31-36% of the theater traffic (25% of entering traffic, 38-53% of exiting traffic) to Driveway C, and assigned no theater traffic assigned to either Driveways B or E.

An examination of the proximity of theater parking spaces to Driveway D shows that 33% of the 238 parking spaces that the applicant has proposed adjacent to the theater are located between Driveway D and a line drawn along the north wall of the theater and extending along the northernmost crosswalk between the theater and Elliott Road. That accounts for 66% of the spaces on the Eastern Federal property. The 66-space parking lot proposed for the north side of the theater alone accounts for 28% of the proposed 238 spaces. Therefore, assigning 25% theater traffic to Driveway D is very reasonable.

It is not reasonable to assume that the vast majority of theater traffic will be confined to the applicant's Driveways B and C and that only nominal traffic will use Driveways D and E. Doing so would ignore the natural behaviors and tendencies of the average motorist if there is no physical barrier that would prevent them from using the Ginn & Company driveways. It would also be a drastic departure from the assignment assumptions in the Town's original TIA.

The resulting theater traffic volumes assigned to the various driveways under Scenarios 1 and 2 are shown in **Figure 11**.

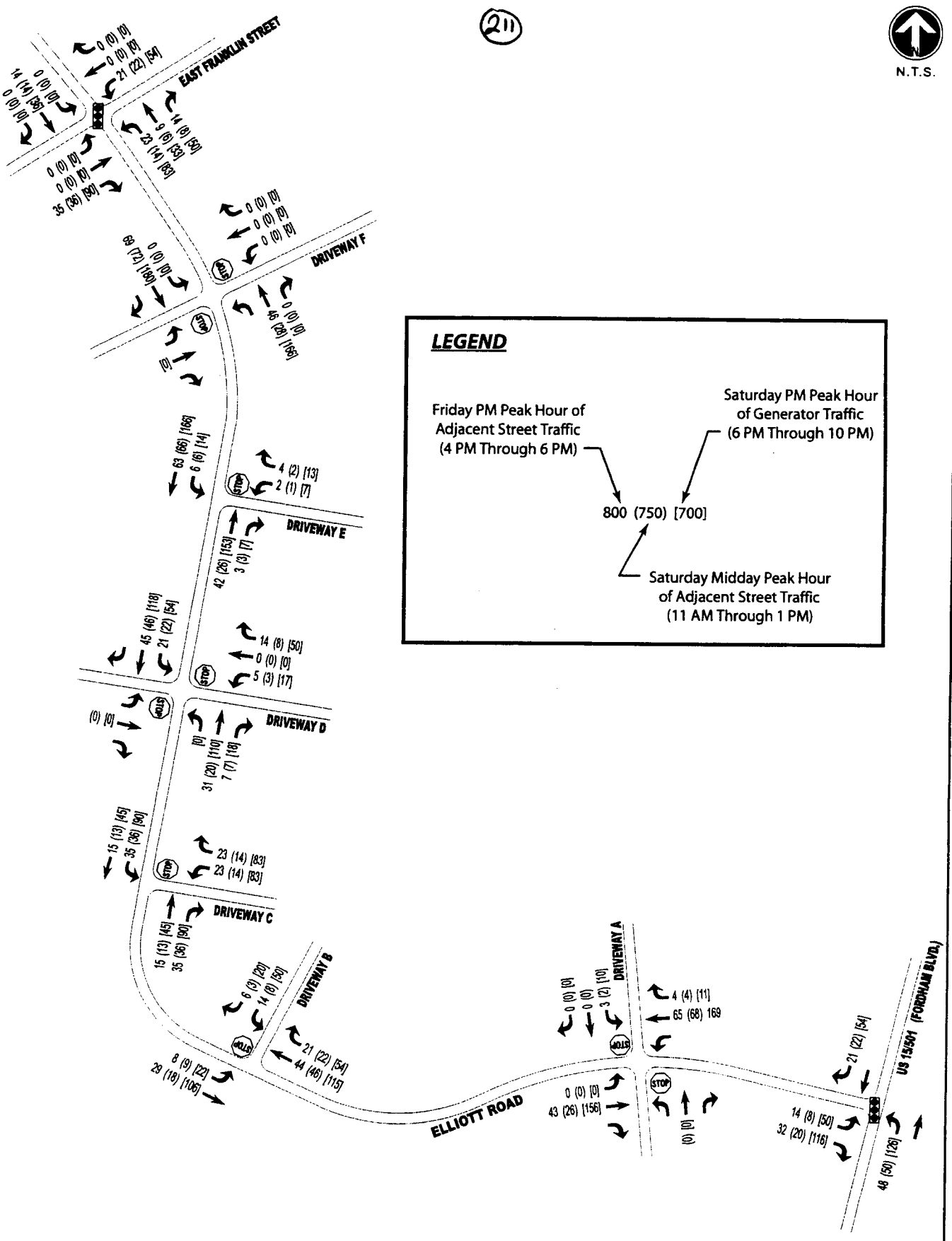
Scenario 3

Scenario 3 recognizes that there is currently no executed cross access agreement between Eastern Federal and Ginn & Company. Scenario 3 assumes that vehicular cross access from Eastern Federal to the Ginn & Company property will be prohibited, at least during the critical peak theater periods. Therefore, all theater traffic must be assigned to Driveways A through C for Scenario 3 as shown in **Figure 12.** The resulting theater traffic volumes assigned to the Driveways A through C under Scenario 3 are shown in **Figure 13**.

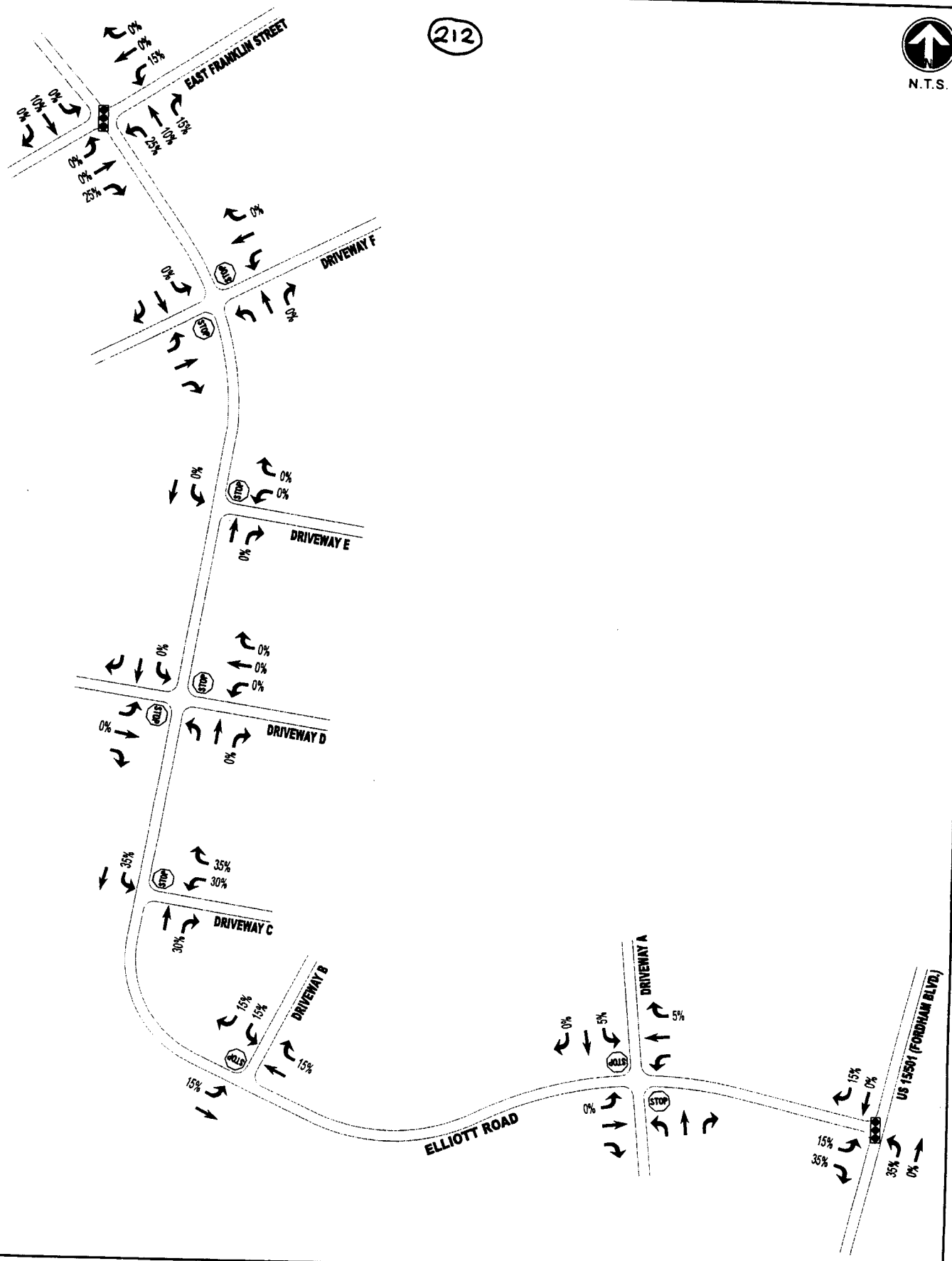
Scenario 4

Scenario 4 builds on the assumptions of Scenario 3 by assuming that Mark Properties elects to invoke provisions in their cross access agreement with Eastern Federal that allows Mark Properties to restrict or prohibit theater traffic from parking on or using the Triangle V II property. With no vehicular cross access permitted between the theater property and the two

adjoining shopping centers owned by Ginn & Company and Mark Properties, 100% of the theater traffic has to be assigned to Driveway C on the Eastern Federal property. The resulting theater traffic assignment and estimated theater traffic volumes for Scenario 4 are shown in **Figures 14 and 15**.



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: SCENARIOS 1 & 2 THEATER TRAFFIC VOLUMES	Figure 11



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: SCENARIO 3 THEATER TRAFFIC ASSIGNMENT	Figure 12

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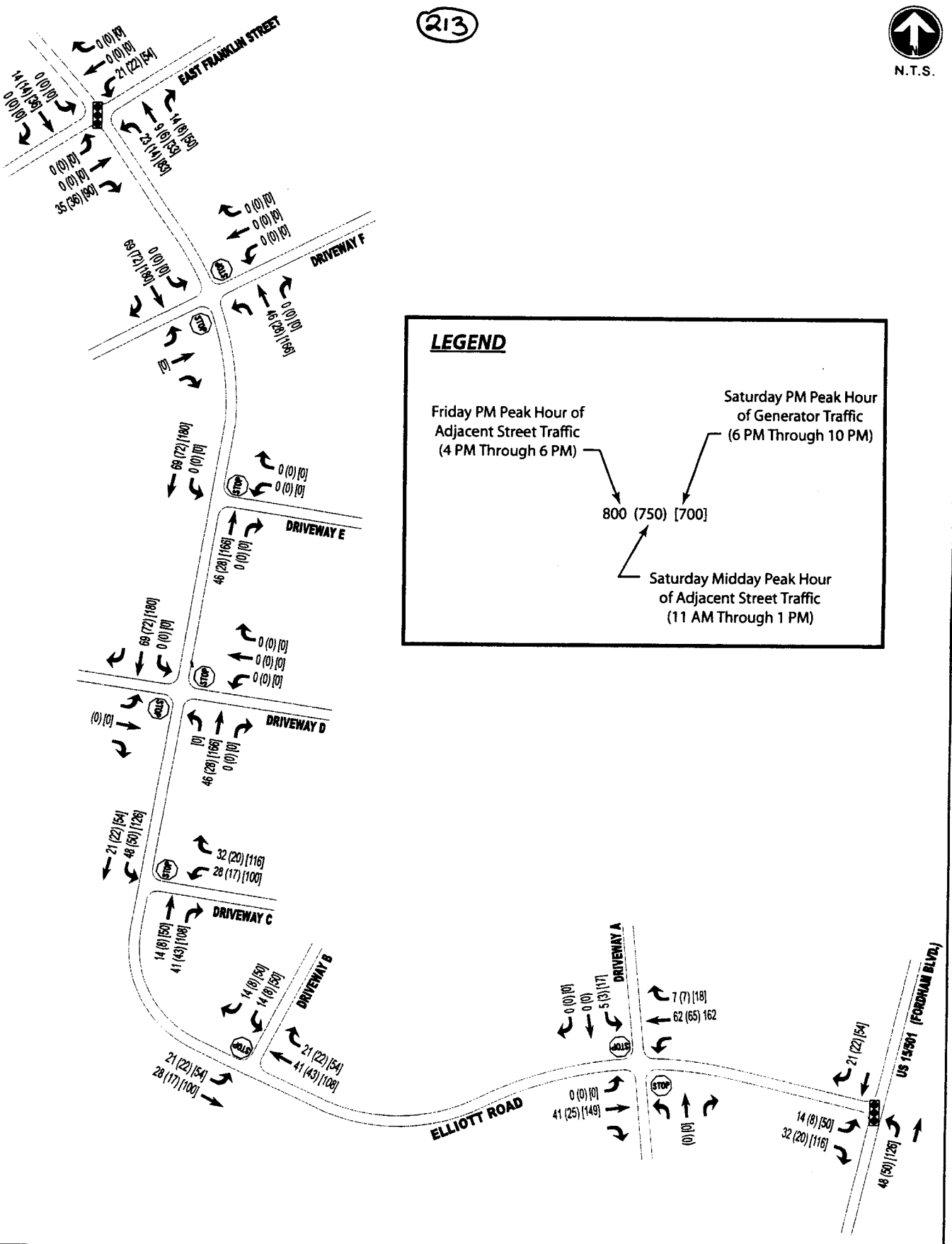
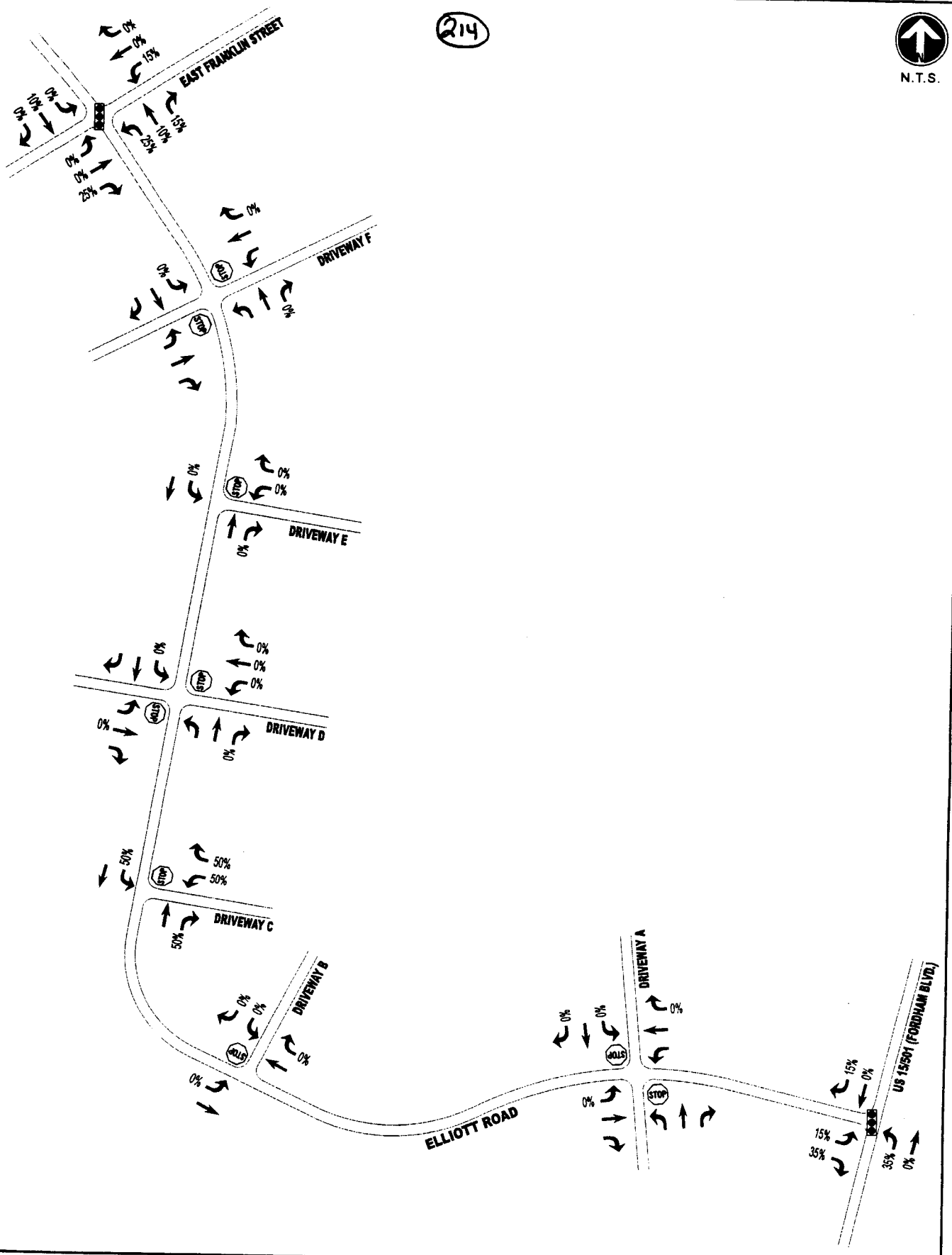
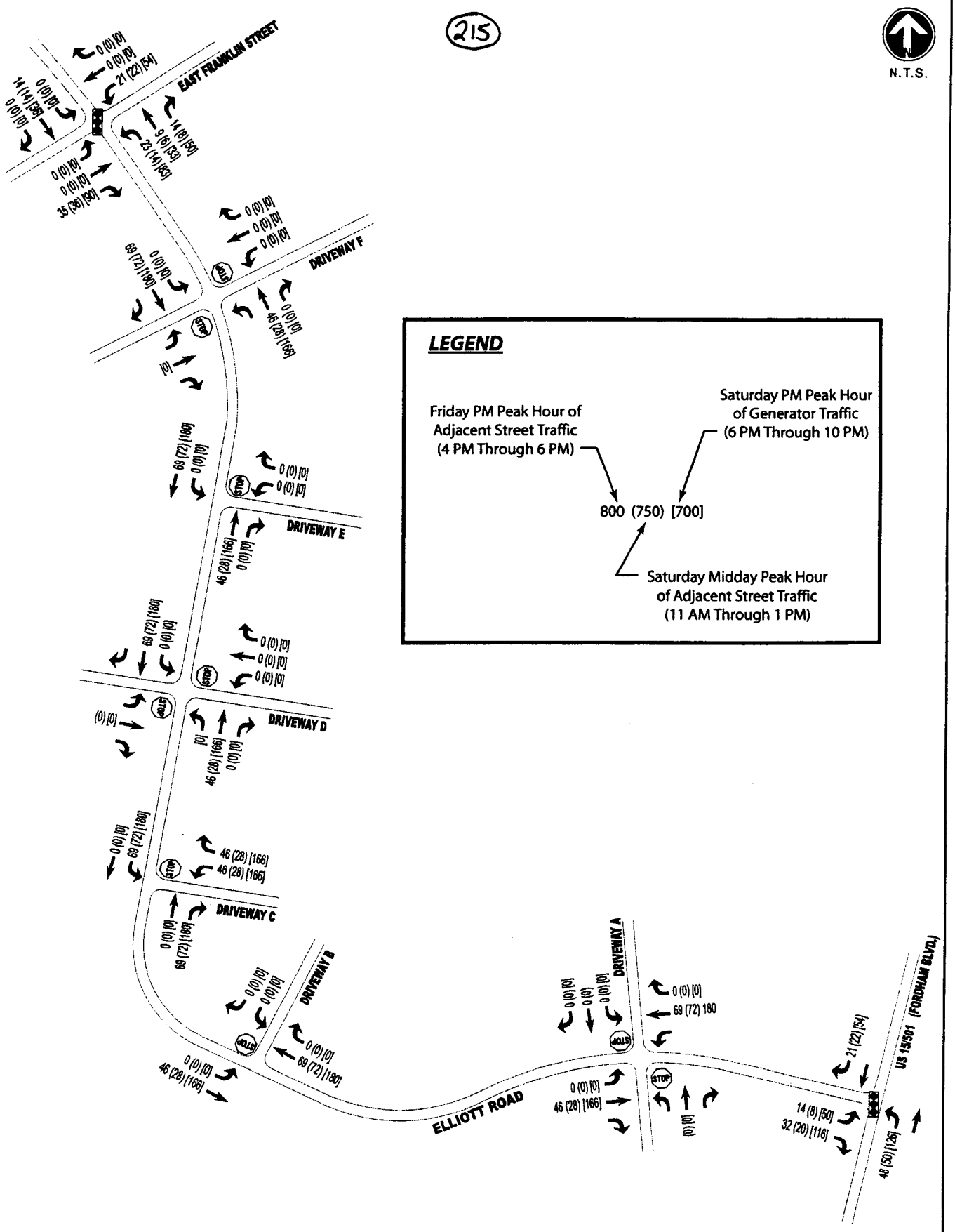


PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: SCENARIO 3 THEATER TRAFFIC VOLUMES	Figure 13



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: SCENARIO 4 THEATER TRAFFIC ASSIGNMENT	Figure 14



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: SCENARIO 4 THEATER TRAFFIC VOLUMES	Figure 15

V. 2006 Background + Development Intersection Analyses

The background plus development traffic used to analyze the theater traffic impacts for the various scenarios is shown in **Figures 16 through 18.**

Unsignalized Intersection Analyses

The results of the unsignalized intersection analyses for all four scenarios are summarized by driveway in **Tables 13 through 18.**

Driveway A

Table 13 summarizes the analysis results for the intersection of Elliott Road and Driveway A under existing conditions, the 2006 background conditions, and the 2006 background plus development scenarios. The addition of theater traffic, regardless of scenario, will cause Driveway A to drop at least one level of service. During the Saturday evening peak, it will drop two places from LOS B to an unacceptable LOS E. It will also fall to LOS F during the Saturday midday peak. The LOS during the Friday evening peak will remain at LOS E, although it will be borderline E/F.

Driveway B

Table 14 summarizes the analysis results for the intersection of Elliott Road and Driveway B under existing conditions, the 2006 background conditions, and the 2006 background plus development scenarios. Driveway B will operate at LOS D or better during all peak periods under all scenarios. However, it does experience a one-letter-grade decrease in level of service due to theater traffic during the Friday afternoon and Saturday evening peak periods when compared with the 2006 background results.

Driveway C

Table 15 summarizes the analysis results for the intersection of Elliott Road and Driveway C under existing conditions, the 2006 bacground conditions, and the 2006 background plus development scenarios. Driveway C will operate at acceptable levels of service C and D during the peak time periods analyzed under Scenarios 1 and 2. When theater traffic is not permitted to use Driveways D and E forcing theater traffic to use only Driveways A through C in Scenario 3, the LOS on Driveway C drops to an unacceptable LOS E during the Saturday evening peak. If Mark Properties invokes the clause in their cross access agreement with Eastern Federal to prohibit Eastern Federal theater traffic from parking on or using the Mark Properties parking lot (i.e., Scenario 4), Driveway C fails (LOS F) during the Saturday evening peak. Based on these results, it is clear that the theater needs to be able to route some of its traffic to Driveways D and E on the Ginn & Company property to prevent Driveway C on its property from degrading to unacceptable levels of service (LOS E and F) during the Saturday evening peak period.

Driveway D

Table 16 summarizes the analysis results for the intersection of Elliott Road and Driveway D under existing conditions, the 2006 background conditions, and the 2006 background plus

development scenarios. A comparison of the 2006 background results with the results of Scenarios 1 through 4 shows that traffic from the theater will have an adverse impact on the level of service (LOS) for Driveway D, regardless of whether any theater traffic is assigned to Driveway D. Adding theater traffic to the Driveway D volumes will lower the level of service by one letter grade during all three critical time periods analyzed under Scenario 1. During the Friday PM peak hour of adjacent street traffic between 4:00 pm and 6:00 pm, traffic generated by the theater will cause Driveway D to drop to an unacceptable LOS E.

The Scenario 2 analysis results show that improving Driveway D to two exiting lanes plus one entering lane as required by Stipulation 4 of the approved SUP would preserve the LOS and delays on Driveway D at very near their pre-theater (2006 background) conditions. During the Saturday midday and evening peaks the LOS would be C just like it would be under 2006 No-Build conditions. Although the Friday afternoon peak would still be LOS E, the delay would improve almost 10 seconds per vehicle over Scenario 1 to be only 5 seconds greater than the 2006 No-Build delay. In short, improving Driveway D, which lies on Ginn & Company property, would sufficiently mitigate the impacts of traffic from the Eastern Federal theater that is not on the Ginn & Company property.

The results for Scenarios 3 and 4 are identical because no theater traffic is assigned to Driveway D in these scenarios. However, theater traffic that formerly turned in and out of Driveways D and E is now added to the through traffic stream that passes in front of these driveways. The additional through traffic reduces the number and frequency of acceptable gaps for motorists turning at Driveways D and E, which, in turn, does increase delays to traffic on these driveways over the 2006 No-Build conditions. As a result, the LOS for Driveway D does drop one letter grade on Friday, between 4:00 pm and 6:00 pm and during the midday period on Saturday. Driveway D remains at LOS C during the Saturday evening peak, although there is a substantial increase in delay.

Driveway E

Table 17 summarizes the analysis results for the intersection of Elliott Road and Driveway E under existing conditions, the 2006 background conditions, and the 2006 background plus development scenarios. Driveway E will maintain its pre-theater operating level during all time periods except for the Saturday evening peak under all Scenarios. It will drop from LOS B to an acceptable LOS C during the Saturday evening peak with the addition of theater traffic.

Driveway F

Table 18 summarizes the analysis results for the intersection of Elliott Road and Driveway F under existing conditions, the 2006 background conditions, and the 2006 background plus development scenarios. The Driveway F intersection is already experiencing high delays and congestion due to the relatively large volumes of traffic using the side street approaches during certain periods and the intersection's close proximity to the signalized intersection at East Franklin Street. It is expected to operate at an acceptable LOS D in 2006 without construction of the theater. However, with construction of the theater and the addition of its traffic, the side street delays will increase, causing the intersection to slip to a poor LOS E during the Friday afternoon and Saturday midday peak periods.

Signalized Intersection Analyses

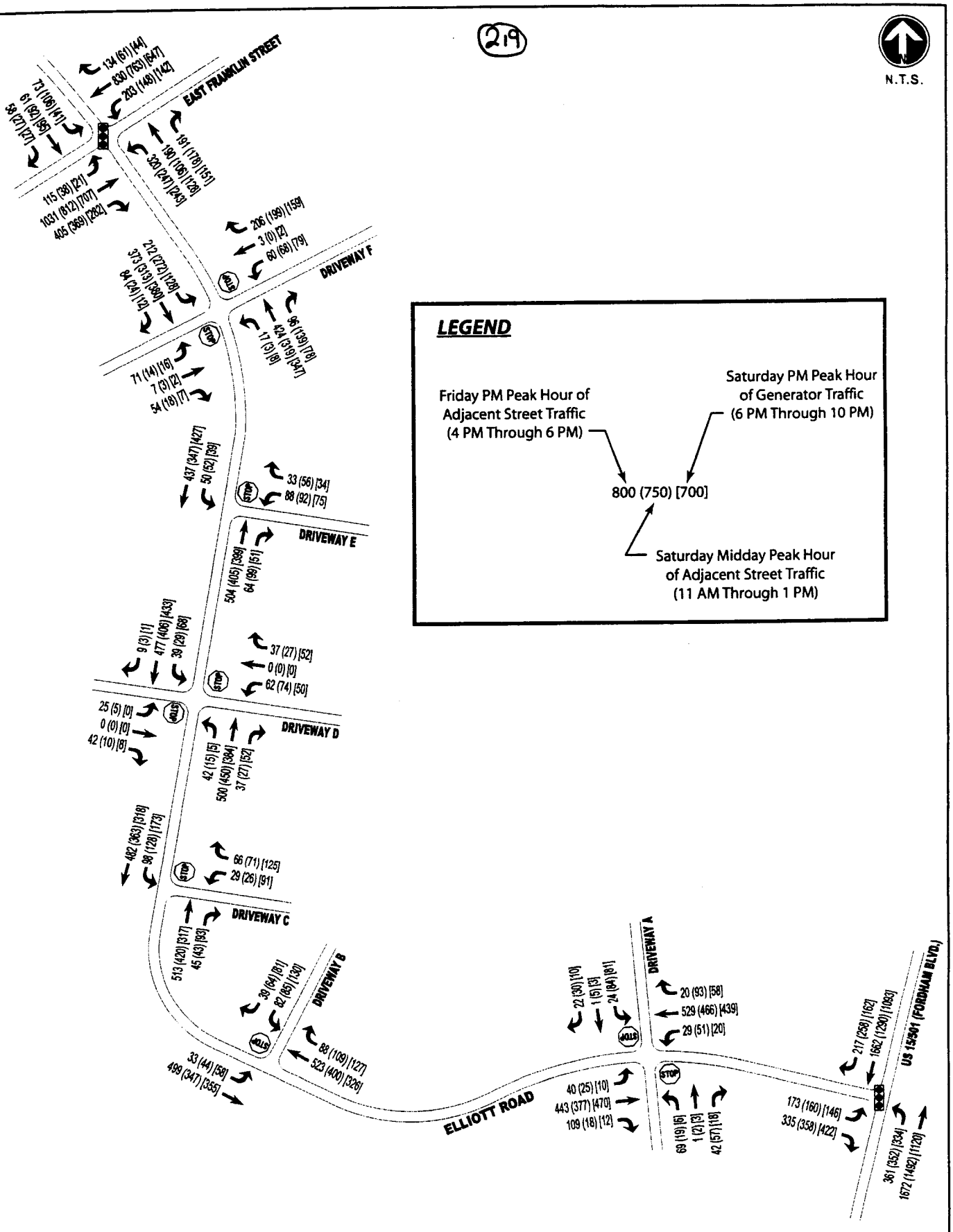
The results of the signalized intersection analyses for all four scenarios are summarized by intersection in **Tables 19 and 20.**

Elliott Road at US 15-501 (Fordham Boulevard)

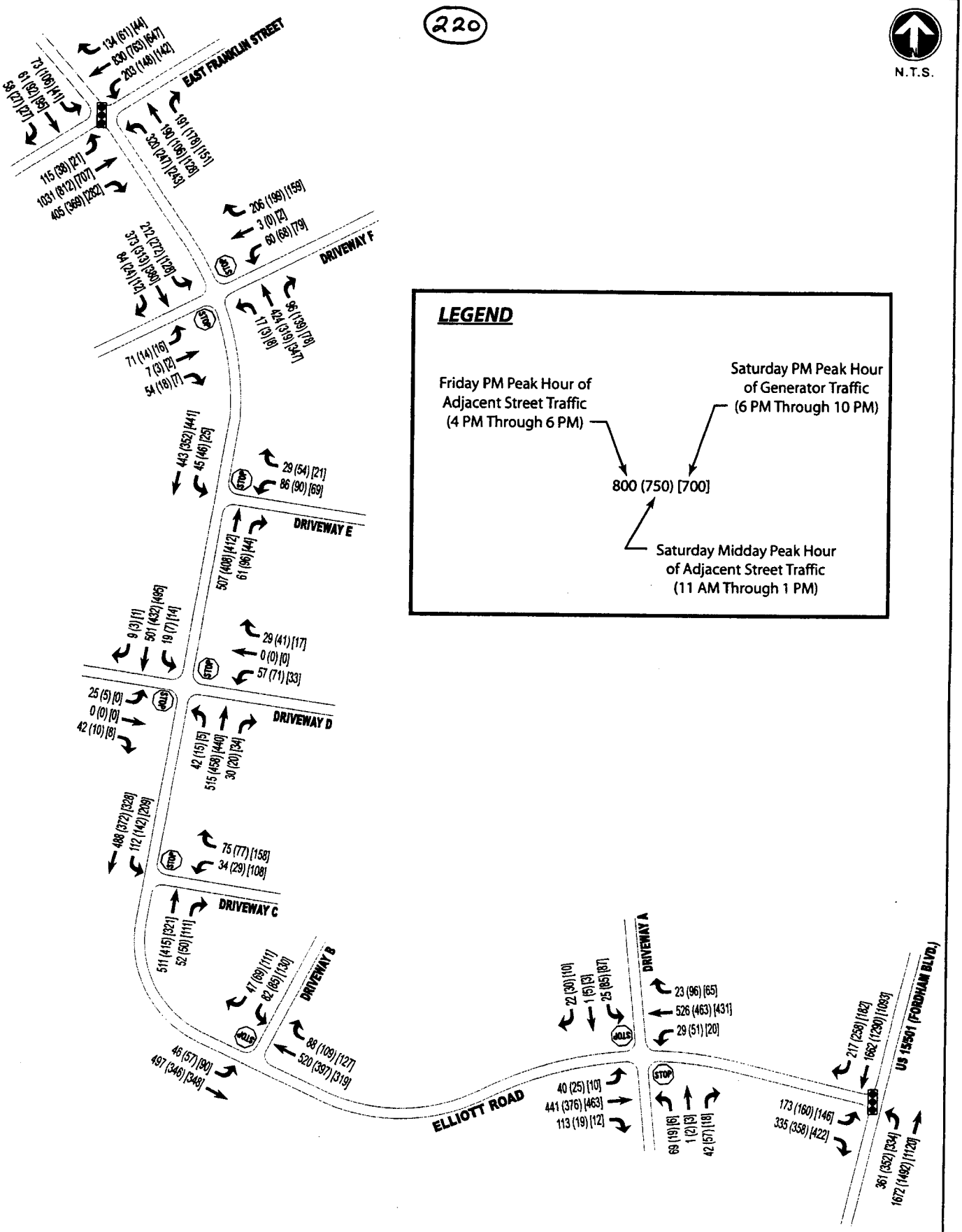
Table 19 summarizes the analysis results for the signalized intersection of Elliott Road and US 15-501 (Fordham Boulevard) under existing conditions, the 2006 background conditions, and the 2006 background plus development scenarios. The addition of theater traffic to this intersection will not seriously affect its performance. The existing LOS D and LOS C during the Friday afternoon and Saturday evening peaks respectively will be maintained with only a slight increase in delay. There will be just enough increase in the delay during the Saturday midday time period to drop the LOS from C to D.

Elliott Road at East Franklin Street

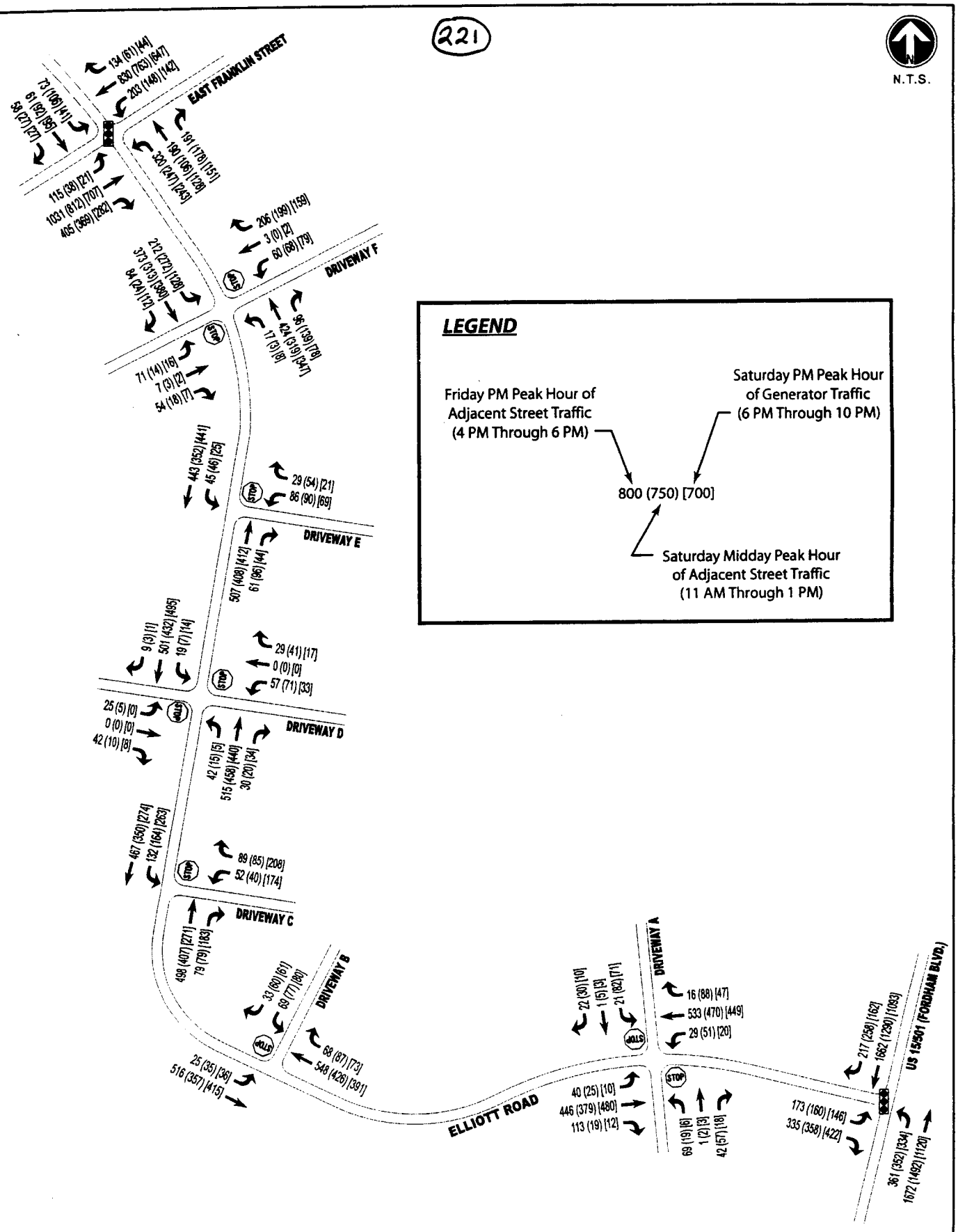
Table 20 summarizes the analysis results for the signalized intersection of Elliott Road and East Franklin Street under existing conditions, the 2006 background conditions, and the 2006 background plus development scenarios. This intersection is already experiencing long delays and poor levels of service during the Friday afternoon and Saturday midday peak periods. The addition of theater traffic during these time periods will not have an appreciable effect on the performance of this intersection. However, the theater traffic will cause the intersection to drop from LOS C to D during the Saturday evening peak period. There will be a substantial increase in delays on northbound Elliott Road approaching Franklin Street, resulting in a drop in LOS on this intersection approach from LOS D to LOS F.



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: SCENARIOS 1&2 2006 BACKGROUND + THEATER TRAFFIC VOLUMES	Figure 16



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: SCENARIO 3 2006 BACKGROUND + THEATER TRAFFIC VOLUMES	Figure 17



PBSJ 1616 E. Millbrook Road-Suite 310 Raleigh, NC 27609 (919) 876-6888	PROJECT: VILLAGE PLAZA TRAFFIC IMPACT ANALYSIS	DESCRIPTION: SCENARIO 4 2006 BACKGROUND + THEATER TRAFFIC VOLUMES	Figure 18

Table 13
Summary of LOS and Delays for Driveway A

Elliott Road at Driveway A	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
Existing 2004						
NB LTR	D	32.1	C	15.3	B	12.2
SB LTR	C	21.5	D	34.1	C	17.7
EB L	A	8.4	A	8.4	A	7.9
WB L	A	8.5	A	8.2	A	8.0
2006 Background (without theater)						
NB LTR	E	36.6	C	16.2	B	12.3
SB LTR	C	23.0	E	39.1	C	18.6
EB L	A	8.5	A	8.5	A	7.9
WB L	A	8.5	A	8.2	A	8.0
Scenarios 1 & 2 (theater traffic uses Driveways A thru E)						
NB LTR	E	49.8	C	17.9	C	16.1
SB LTR	**D**	28.6	**F**	53.3	**E**	38.0
EB L	A	8.7	A	8.7	A	8.5
WB L	A	8.7	A	8.3	A	8.5
Scenario 3 (theater traffic uses Driveways A thru C only)						
NB LTR	E	49.3	C	17.8	C	15.9
SB LTR	D	28.9	F	54.4	E	39.1
EB L	A	8.7	A	8.7	A	8.4
WB L	A	8.7	A	8.3	A	8.4
Scenario 4 (theater traffic uses Driveway C only)						
NB LTR	**F**	50.8	C	17.9	C	16.2
SB LTR	D	27.3	F	52.8	E	35.9
EB L	A	8.7	A	8.7	A	8.4
WB L	A	8.7	A	8.3	A	8.5

NOTE: LOS letters shown in bold font and underscored indicate a drop in the level of service from a preceding analysis scenario.

Table 14
Summary of LOS and Delays for Driveway B

Elliott Road at Driveway B	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
Existing 2004						
SB L	C	24.9	C	18.5	B	14.9
SB R	B	11.8	B	11.1	B	10.1
SB Approach	*C*	*20.7*	*C*	*15.2*	*B*	*12.8*
EB L	A	8.6	A	8.3	A	7.9
2006 Background (without theater)						
SB L	D	27.1	C	19.5	C	17.7
SB R	B	12.1	B	11.3	B	10.1
SB Approach	*C*	*22.3*	*C*	*15.9*	*B*	*13.1*
EB L	A	8.7	A	8.4	A	8.0
Scenarios 1 & 2 (theater traffic uses Driveways A thru E)						
SB L	**E**	35.7	C	23.5	**D**	32.4
SB R	B	12.8	B	11.9	B	11.7
SB Approach	***D***	*28.3*	*C*	*18.5*	***C***	*24.4*
EB L	A	8.9	A	8.6	A	8.6
Scenario 3 (theater traffic uses Driveways A thru C only)						
SB L	E	38.1	C	24.8	**E**	39.6
SB R	B	12.9	B	11.9	B	12.1
SB Approach	*D*	*29.0*	*C*	*19.0*	***D***	*26.9*
EB L	A	9.0	A	8.7	A	8.7
Scenario 4 (theater traffic uses Driveway C only)						
SB L	D	33.4	C	22.7	D	26.4
SB R	B	12.8	B	12.0	B	11.9
SB Approach	*D*	*26.8*	*C*	*18.0.*	*C*	*20.1*
EB L	A	8.9	A	8.6	A	8.5

NOTE: LOS letters shown in bold font and underscored indicate a drop in the level of service from a preceding analysis scenario.

Table 15
Summary of LOS and Delays for Driveway C

Elliott Road at Driveway C	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
Existing 2004						
SB L	A	8.6	A	8.4	A	8.0
WB LR	B	13.5	B	13.1	B	11.2
2006 Background (without theater)						
SB L	A	8.7	A	8.5	A	8.1
WB LR	B	13.8	B	13.4	B	11.3
Scenarios 1 & 2 (theater traffic uses Driveways A thru E)						
SB L	A	9.0	A	8.8	A	8.9
WB L	D	31.4	D	25.6	E	46.1
WB R	B	12.9	B	11.8	B	12.0
WB Approach	***C***	*18.5*	***C***	*15.5*	***D***	*26.4*
Scenario 3 (theater traffic uses Driveways A thru C only)						
SB L	A	9.1	A	8.9	A	9.2
WB L	D	34.9	D	27.5	**F**	84.6
WB R	B	13.0	B	11.9	B	12.8
WB Approach	*C*	*19.8*	*C*	*16.1*	***E***	*42.0*
Scenario 4 (theater traffic uses Driveway C only)						
SB L	A	9.3	A	9.1	A	9.6
WB L	**E**	43.1	D	31.6	F	310.9
WB R	B	13.3	B	12.1	B	13.6
WB Approach	*C*	*24.2*	*C*	*18.3*	***F***	*148.9*

NOTE: LOS letters shown in bold font and underscoered indicate a drop in the level of service from a preceding analysis scenario.

Table 16
Summary of LOS and Delays for Driveway D

Elliott Road at Driveway D	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
Existing 2004						
NB L	A	8.3	A	8.0	A	7.9
SB L	A	8.4	A	8.3	A	7.9
EB LTR	C	18.8	B	13.6	B	10.1
WB LTR	D	29.4	C	20.7	B	14.6
2006 Background (without theater)						
NB L	A	8.4	A	8.1	A	8.0
SB L	A	8.5	A	8.3	A	8.0
EB LTR	C	20.0	B	14.0	B	10.2
WB LTR	D	33.1	C	22.1	C	15.1
Scenario 1 (theater traffic uses Driveways A thru E; no improvements to D)						
NB L	A	8.5	A	8.2	A	8.3
SB L	A	8.7	A	8.5	A	8.6
EB LTR	C	24.5	**C**	15.7	B	11.2
WB LTR	**E**	46.7	**D**	28.1	**D**	26.0
Scenario 2 (theater traffic uses Driveways A thru E; Improved Driveway D)						
NB L	A	8.5	A	8.2	A	8.3
SB L	A	8.7	A	8.5	A	8.6
EB LTR	C	24.5	C	15.7	B	11.2
WB LT	F	56.2	D	31.9	D	34.3
WB R	B	12.3	B	11.8	B	11.7
WB Approach	*E*	*38.2*	*C*	*23.9*	*C*	*21.4*
Scenarios 3 & 4 (theater traffic does not use Driveways D & E)						
NB L	A	8.6	A	8.3	A	8.5
SB L	A	8.7	A	8.4	A	8.5
EB LTR	C	23.7	C	15.4	B	11.8
WB LTR	E	44.3	D	26.5	C	24.5

NOTE: LOS letters shown in bold font and underscored indicate a drop in the level of service from a preceding analysis scenario.

Table 17
Summary of LOS and Delays for Driveway E

Elliott Road at Driveway E	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
Existing 2004						
SB L	A	8.6	A	8.5	A	7.9
WB LR	C	23.1	C	18.7	B	14.0
2006 Background (without theater)						
SB L	A	8.7	A	8.5	A	8.0
WB LR	D	25.1	C	19.8	B	14.5
Scenarios 1 & 2 (theater traffic uses Driveways A thru E)						
SB L	A	8.9	A	8.6	A	8.5
WB LR	D	32.0	C	23.8	**C**	24.5
Scenarios 3 & 4 (theater traffic does not use Driveways D &E)						
SB L	A	8.8	A	8.6	A	8.5
WB LR	D	31.3	C	23.1	C	23.3

NOTE: LOS letters shown in bold font and underscored indicate a drop in the level of service from a preceding analysis scenario.

Table 18
Summary of LOS and Delays for Driveway F

Elliott Road at Driveway F	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
Existing 2004						
NB L	A	8.1	A	7.8	A	7.7
SB L	A	9.1	A	9.2	A	8.1
EB LTR	F	189.0	D	32.0	C	18.2
WB LT	F	75.6	F	58.9	C	20.3
WB R	B	13.6	B	12.5	B	10.5
WB Approach	*D*	*28.2*	*C*	*24.2*	*B*	*13.8*
2006 Background (without theater)						
NB L	A	8.1	A	7.8	A	7.7
SB L	A	9.2	A	9.3	A	8.1
EB LTR	F	259.9	E	37.0	C	19.2
WB LT	F	93.1	F	70.2	C	21.4
WB R	B	14.0	B	12.8	B	10.6
WB Approach	*D*	*32.5*	*D*	*27.4*	*B*	*14.3*
All Scenarios (with theater)						
NB L	A	8.3	A	8.0	A	8.1
SB L	A	9.5	A	9.5	A	8.7
EB LTR	F	417.0	E	44.6	**D**	33.1
WB LT	F	142.1	F	99.3	**E**	45.2
WB R	B	15.0	B	13.2	B	12.5
WB Approach	***E***	*44.7*	***E***	*35.1*	***C***	*23.5*

NOTE: LOS letters shown in bold font and underscored indicate a drop in the level of service from a preceding analysis scenario.

Table 19
Summary of LOS and Delays for US 15-501 (Fordham Boulevard)

Elliott Road at US 15-501 (Fordham Boulevard)	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
Existing 2004						
NB US 15-501	C	28.0	C	26.8	C	21.1
SB US 15-501	E	63.8	D	38.7	C	33.2
EB Elliott Road	D	43.8	D	35.9	C	32.4
Overall Intersection	D	45.2	C	32.7	C	27.6
2006 Background (without theater)						
NB US 15-501	C	29.7	C	28.1	C	21.5
SB US 15-501	E	75.8	D	41.3	C	34.2
EB Elliott Road	D	44.5	D	36.3	C	28.2
Overall Intersection	D	51.3	C	34.4	C	28.2
All Scenarios (with theater)						
NB US 15-501	C	34.5	C	31.8	C	28.2
SB US 15-501	E	75.3	D	41.2	C	33.9
EB Elliott Road	D	46.1	D	36.9	**D**	36.6
Overall Intersection	D	53.2	**D**	36.2	C	31.8

NOTE: LOS letters shown in bold font and underscored indicate a drop in the level of service from a preceding analysis scenario.
Although the SUP requires the applicant to pay a fee for signal retiming, signal timings at this intersection were not optimized in the analyses for the develop scenarios since this intersection is part of a coordinated signal system. The entire system would have to be optimized to determine the future timings at this single intersection.

Table 20
Summary of LOS and Delays for East Franklin Street

Elliott Road at East Franklin Street	Friday PM Peak Hour of Adjacent Street Traffic *(between 4 pm - 6 pm)*		Saturday Peak Hour of Adjacent Street Traffic *(between 11 am - 1 pm)*		Saturday Peak Hour of Generator *(between 6 pm - 10 pm)*	
	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)	LOS	Avg. Control Delay (sec/veh)
Existing 2004						
NB Elliott Road	F	157.9	F	84.1	D	44.5
SB Elliott Road	D	37.5	D	36.7	D	36.8
EB Franklin St.	F	102.5	D	44.5	C	30.1
WB Franklin St	C	31.9	C	26.5	C	24.1
Overall Intersection	F	86.4	D	44.9	C	30.7
2006 Background (without theater)						
NB Elliott Road	F	174.4	F	92.5	D	46.4
SB Elliott Road	D	37.7	D	37.5	D	36.9
EB Franklin St.	F	120.1	D	51.7	C	31.0
WB Franklin St	C	33.5	C	27.2	C	24.5
Overall Intersection	F	97.6	D	49.7	C	31.6
All Scenarios (with theater)						
NB Elliott Road	F	178.8	E	72.4	D	42.9
SB Elliott Road	D	37.5	D	35.3	C	27.7
EB Franklin St.	F	82.1	D	45.9	C	28.7
WB Franklin St	**E**	60.1	C	28.8	C	22.7
Overall Intersection	F	91.4	D	44.3	C	29.6

NOTE: LOS letters shown in bold font and underscored indicate a drop in the level of service from a preceding analysis scenario.
Signal timings were optimized in the analyses for the develop scenarios in recognition that the SUP requires the applicant to pay a fee for signal retiming.

Intersection Analysis Conclusions

Based on the results of the preceding analyses, the following conclusions can be drawn:

1. Driveway A will drop from LOS C to an unacceptable LOS E during the Saturday evening peak period with the addition of theater traffic. Although currently operating at LOS E during the Friday afternoon peak period and the Saturday midday peak period, delays will increase substantially with the addition of theater traffic. This will drop the intersection from LOS E to F during the Saturday midday period under all scenarios and will push the intersection to LOS F during the Friday afternoon peak under Scenario 4 (i.e., theater traffic using Driveway C only).

2. Driveway B will function at an acceptable LOS D or better during all peak periods and under all scenarios. Driveway B will drop from LOS C to LOS D during the Friday afternoon peak, but with only a minor increase in delay. The Driveway will drop two operating levels from LOS B without the theater to LOS D with theater traffic during the Saturday evening peak under Scenario 3 when theater traffic is not permitted to use the Ginn & Company driveways.

3. Driveway C will operate at an unacceptable LOS E during the Saturday evening theater peak if theater traffic is not allowed to use Driveways D and E on the Ginn & Company Property.. If vehicular cross access is not permitted between the Ginn & Company property and the Eastern Federal Theaters property due to lack of an executed cross-access agreement and all traffic must use Driveways A through C only, the intersection of Elliott Road and Driveway C will operate at a poor LOS E versus LOS D when cross access is permitted.

4. Driveway C will operate at an unacceptable LOS F during the Saturday evening theater peak if theater traffic is not allowed to use either the Ginn & Company driveways or the Mark Properties driveways. If theater traffic cannot use Driveways A and B due to Mark Properties invoking the clause in their cross-access agreement with Eastern Federal to prohibit theater traffic from using or parking on the Triangle V II property, the only theater access will be Driveway C, the lone driveway on the Eastern Federal property. The result will be that Driveway D will fail during the Saturday peak movie period.

5. The addition of theater traffic to Driveway D will cause Driveway D to drop one level of service during each of the three analysis periods if Driveway D is not improved in accordance with the approved SUP. Driveway D will drop from a 2006 No-Build LOS D to an unacceptable LOS E during the Friday afternoon peak hour between 4:00 pm and 6:00 pm with the addition of traffic from the proposed theater.

6. Improving Driveway D as required by the approved SUP will enable Driveway D to operate very near the expected 2006 conditions without the proposed theater (i.e., background/no-build conditions). There will be no drop in the 2006 background LOS C during the Saturday midday period and Saturday evening peak period, with only minor increases in delay. During the Friday afternoon peak, Driveway D will not

improve from LOS E back to the 2006 background LOS D, but there will be only 5 seconds difference in delay.

7. Adding the proposed theater traffic will increase delay but have only moderate impacts on Driveway E. This driveway will operate at LOS D or better during all peak periods under all scenarios. It will experience a slight drop from LOS B to LOS C during the Saturday evening peak period with the addition of the theater traffic.

8. Driveway F is already operating at a poor LOS F without the theater traffic during the Friday afternoon and Saturday midday peak periods. Adding theater traffic will cause Driveway F to drop from LOS C to D during the Saturday evening peak period.

9. The theater traffic will not change the overall intersection LOS for the intersection of Elliott Road and East Franklin Street during the Friday afternoon peak period and the Saturday midday peak period. This intersection is already congested without theater traffic and will remain at LOS F and LOS D respectively.

10. The intersection of Elliott Road and US 15-501 (Fordham Boulevard) will continue to operate at LOS D or better after the addition of theater traffic, as it will without theater traffic. There will be only minor increases in delay due to theater traffic. The Saturday midday peak will drop from LOS C to LOS D, but there will be only a 2-second increase in delay.

11. The theater traffic volumes used in the analyses represent *average* theater traffic conditions, not the "worst case" theater traffic conditions. Traffic produced by the theater during holiday times such as between Thanksgiving and Christmas or during the first run of "blockbuster" movies will be significantly higher than the traffic used in these analyses.

VI. CIRCULATION

Driveway D

Driveway serves not only the patrons of the Ginn & Company shopping center, but it also is the designated entrance for trucks servicing the shopping center, and it provides access to Elliott Road from the Staples shopping center via cross access. Two conditions related to the design of Driveway D need to be improved to facilitate ingress and egress of theater traffic and ensure efficient traffic flow once the theater is built. One condition is existing, while the other will be created by redevelopment of the theater site as currently proposed. The existing condition that needs to be improved is the width of Driveway D. While two way traffic flow is currently permitted on Driveway D, the driveway is only a single lane wide for most of its length between Elliott Road and the rear of the Red Hot and Blue restaurant. It is difficult if not impossible for an entering vehicle to pass an oncoming exiting vehicle in this area. Typically, one vehicle must wait until the other passes before proceeding. This situation is exacerbated by the fact that this driveway is also the only entrance for large trucks servicing the business of the Whole Foods shopping center. The photos below illustrate the narrow width of Driveway D.