

TECHNICAL MEMORANDUM

Date: November 2, 2018
To: Brian Boxer and Christina Erwin; ESA
CC: Mindy Wilcox, Louis Atwell, and Peter Puglese; City of Inglewood
From: Tom Gaul, Netai Basu, and Mike Samuelson

Subject: *Additional Information on the Transportation Impact Analysis Methodology for Inglewood Basketball and Entertainment Center (IBEC)*

LA2018-3002

This memorandum provides an overview of certain parts of the approach that Fehr & Peers is following for the transportation impact analysis of the Inglewood Basketball and Entertainment Center (IBEC) that were not detailed in our initial scope of work. This memorandum is not a comprehensive list of all analysis methods and precise approaches. Rather, it has been prepared with the intention of providing methodological detail on portions of the analysis that were not known at the time our scope of work was written. The methodology and assumptions for the vehicle miles of travel (VMT) analysis to be conducted for the project will be documented in a separate technical memorandum. Additional methodological detail is provided in the Fehr & Peers scope of work. We have been conducting the study in accordance with methodology outlined in this memorandum.

I. Analysis Scenarios and Time Periods

We are conducting a full quantitative evaluation of two event scenarios in addition to a non-event day scenario and is using two intersection level of service (LOS) methodologies. Table 1A documents the scenarios, LOS methodology (and number of intersections studied using each methodology), and study periods. Based on the *Anticipated Annual Event Characteristics* from September 2018 and discussions with the project team on August 27, 2018, the weekday daytime events analyzed will be a corporate event with 2,000 attendees who arrive in the AM peak hour (between 7:00 AM and 9:00 AM) and another event with 7,500 attendees departing in the PM peak hour (between 4:00 and 6:00 PM).

In addition to the scenarios listed in Table 1A, the analysis will develop pre-event peak hour trip generation estimates for a sold-out concert (with an attendance of 18,500) at the IBEC, and document differences in travel characteristics compared to an NBA basketball game.

Analysis Scenario	Study Period	Number of Intersections by LOS Methodology *	
		HCM (Delay based LOS)	ICU/CMA (V/C-based LOS)
Sold-out (18,000) NBA basketball game in the IBEC	Weekday pre-event hour, Weekend pre-event hour	65 (Simulation) 4 (Static HCM)	20
Sold-out (18,500) concert in the IBEC	Weekday post-event hour	65 (Simulation) 4 (Static HCM)	20
Daytime Corporate or Community Event in the IBEC (Attendance 2,000)	Weekday AM peak hour (between 7 and 9 AM),	5 (Static HCM)	43
Other Sporting Event in the IBEC (Attendance 7,500)	Weekday PM peak hour (between 4 and 6 PM)	5 (Static HCM)	43
Non-event weekday	Weekday AM peak hour (between 7 and 9 AM), Weekday PM peak hour (between 4 and 6 PM)	5 (Static HCM)	43

**The study area may be expanded to include additional intersections.*

The use of a traffic simulation at intersections near the project site will allow for the analysis to identify event-related network bottlenecks and evaluate the effectiveness of potential event-related traffic management strategies. The ICU and CMA methodologies are the typical analysis methodology for local jurisdictions and are being applied further from the site, for analysis of non-event days and for analysis of corporate or community events or smaller sporting events. These methodologies are more suited to these more remote locations because issues related to signal control, spillback, lane utilization, etc., associated with heavy event demands (that simulation is well-suited to analyze) are less likely to be present. Static HCM analysis, using the Synchro software package, is being used at freeway off-ramps at intersections where there is no simulation analysis, in accordance with Caltrans' typical guidance.

For the evening events that are being analyzed using HCM methodology and simulation, pre-event time periods will be based on travel patterns of NBA fans rather than concert goers, as shown in Table 1A. Table 1B shows the arrival patterns of NBA fans from a survey administered to Clippers fans and the arrival pattern of concert goers as counted at The Forum. As the table shows, NBA fans arrive in a more concentrated time period, and therefore a higher percentage of all attendees arrive in the peak hour for an NBA game compared to a concert.

Arrival (Minutes before game)	Weekday Forum Driveway Counts	Weekend Forum Driveway Counts	Clippers Fan Survey
150 to 120	-	-	3.0%
120 to 90	13.0%	-	7.0%
90 to 60	28.3%	25.7%	20.3%
60 to 30	31.9%	28.5%	32.9%
30 to 0	26.8%	22.1%	34.7%
0 to -30	-	23.7%	2.1%
Peak hour percentage of total arrival	60%	54%	68%

In the post-event hour, the study will analyze a concert at the IBEC, as both NBA fans and concert goers are assumed to depart the arena at similar rates, and the concert capacity at the IBEC is slightly higher than NBA game capacity (18,500 compared to 18,000). Therefore, a concert would produce more peak hour trips after an event when compared to an NBA game.

As part of the NBA basketball game scenario, the transportation analysis will consider several concurrent event scenarios for the nearby NFL stadium and The Forum, to be studied only during the future year study period. These concurrent events assume a sold-out event at The Forum (18,000 attendance) and the NFL stadium (70,000 attendance). Table 1B shows the concurrent event scenarios.

Analysis Scenario	Attendance
Sold-out NBA basketball game in the IBEC and sold-out NFL game in NFL Stadium	18,000 (IBEC) + 70,000 (NFL)
Sold-out NBA basketball game in the IBEC and sold-out concert in The Forum	18,000 (IBEC) + 18,000 (The Forum)
Sold-out NBA basketball game in the IBEC, sold-out NFL game in NFL Stadium, and sold-out concert in The Forum	18,000 (IBEC) + 70,000 (NFL) + 18,000 (The Forum)
Note: Concurrent events will be studied during all weekday and weekend evening event scenarios.	

In order to determine which weekday and weekend day to analyze for the NBA game scenario, initial 24-hour turning movement counts were taken at several intersections near the proposed IBEC on a Thursday, Friday, Saturday, and Sunday in April 2018. Vehicle volumes on Friday were two percent higher than those on Thursday, and vehicle volumes on Saturday were 20 percent higher than those on Sunday, and therefore Friday and Saturday were chosen as the two days

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for analysis, for weekday and weekend, respectively. Counts were taken on typical days during the school year, representing normal conditions.

Analysis scenarios during the weekday AM and PM peak hours (using the ICU or CMA methodologies) use the peak one-hour volume of each individual intersection, as these LOS methodologies evaluate each intersection in isolation. This analysis will concentrate on the peak traffic periods of the adjacent street traffic (7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM), which is consistent with previous traffic studies in the City of Inglewood and adjacent cities and is standard practice for traffic impact analysis in this region. When analyzing the effects of smaller events (with attendance of 2,000 and 7,500) during the AM and PM peak hours of adjacent street traffic, the analysis will assume that the peak hour of the event's traffic will coincide with peak hour of each individual intersection's traffic, to produce the most conservative analysis. This is consistent with the City of Inglewood and adjacent cities' typical analysis methodology.

In addition, to assess the effect of what will be exceptionally heavy traffic flows before and after basketball games, microsimulation analysis will be done for certain pre-game and post-game scenarios. A Synchro/SimTraffic simulation model will be developed that implements the Highway Capacity Manual (HCM) methodology. The HCM methodology calculates not only intersection capacity but also delay for each intersection approach and for an intersection as a whole. As implemented by the SimTraffic software, the HCM analysis will also reflect the effects of congestion within a network. This analysis of the NBA game scenarios shown in Table 1A will be based on a network-wide peak hour instead of individual intersection peak hours. In order to determine the correct peak hour to be analyzed for the NBA game scenario, Fehr & Peers evaluated data from other arena traffic studies and surveyed Clippers fans¹ about their current arrival and departure behavior at the Staples Center. The questions on arrival and departure patterns included questions about pre-game and post-game activities near the Staples Center, in order to determine when fans arrive and depart the arena vicinity. Table 2 displays arrival travel patterns, and Tables 3 and 4 show departure patterns.

¹ The survey was developed by Fehr & Peers, with the goal of collecting information about fans' travel patterns, including mode choice, arrival and departure times, and differences in travel on weekdays and weekends. The survey was administered online for one month, and was sent by Clippers staff on May 22, 2018 to a list of 20,905 emails. The survey received 714 responses. The results of the survey are detailed in a separate memorandum, *Clippers Fan Survey for Inglewood Basketball and Entertainment Center (IBEC) EIR*. October 26, 2018.

Arrival (Minutes before game)	Golden State Warriors Arena	Golden 1 Center (Sacramento Kings)	Sacramento MLS Stadium	Clippers Fan Survey
150 to 120	1.0%	-	-	3.0%
120 to 90	4.0%	14.0%	6.1%	7.0%
90 to 60	11.0%		16.7%	20.3%
60 to 30	20.0%	22.7%	38.0%	32.9%
30 to 0	32.5%	44.7%	32.0%	34.7%
0 to -30	32.5%	18.6%	7.2%	2.1%
-30 to -60	-		-	

Note: Bold represents peak hour of arrival

Departures (Minutes after game)	Golden State Warriors Arena
-40 to -10	30.0%
-10 to 20	40.0%
20 to 50	30.0%

Note: Bold represents peak hour of departure

Departures (Minutes after game)	Clippers Fan Survey
-60 to 0	5%
0 to 30	77%
30 to 60	10%
60 to 90	4%
90 to 120	2%
More than 120	2%

Note: Bold represents peak hour of departure

As shown in Table 2, the peak hour of arrivals used for other EIR documents for fans occurs in the hour immediately preceding the game at all stadiums/arenas except for the Warriors Arena, where the peak includes the 30 minutes immediately before and after the game start time. The hour immediately preceding the game also is the peak hour of arrival based on data from the Clippers fan survey. Peak one-hour volumes range from 65% to 70% of patrons, with 67.6% reflecting the results of the survey of Clippers fans. Less data was available for departure periods, but both data from the Warriors Arena and the Clippers fan survey showed the peak hour to be concentrated around the end of the game. The EIR for the Golden State Warriors Arena estimated that 70% of fans would depart between 10 minutes before the game ends and 50 minutes after the end of the game, while the survey of Clippers fans showed that 87% of respondents said they leave in the one hour after the end of a game.

Fehr & Peers developed a trip generation estimate for a sold-out NBA game using transit mode share and average vehicle occupancy (AVO), which is discussed in more detail in a separate

memorandum². Using the arrival and departure temporal distribution from the Clippers fan survey, Fehr & Peers examined the existing peak hour near the IBEC for the three NBA game study periods based on traffic counts taken in April 2018. The analysis examined the vehicle volumes from counts at Century Boulevard & Prairie Avenue, the intersection immediately adjacent to the site of the proposed IBEC, and added the trip generation numbers, factoring in arrival patterns based on data from the Clippers fan survey. Although not all project trips will pass through the intersection of Century Boulevard & Prairie Avenue, this analysis estimates how the peak hour may change with the addition of IBEC trips before and after evening events at the IBEC. The goal of the analysis was to determine if the peak hour of all vehicles might be higher outside of the peak hour of fan arrivals, based on background traffic. The trip generation is shown in Table 5A and Table 5B.

Table 5A. Weekday Trip Generation Estimates for NBA Game											
	Capacity	Transit		TNC				Private Vehicles			
		%	Persons	%	Persons	AVO	Vehicles	%	Persons	AVO	# Vehicles
Attendees	18,000	7%	1,260	10%	1,800	2.4	750	88%	14,940	2.4	6,225
Employees	1,100	5%	66	2%	26	1.2	22	93%	1,228	1.2	1,023
Total	19,100		1,370		1,826		772		16,808		7,248

Table 5B. Weekend Trip Generation Estimates for NBA Game											
	Capacity	Transit		TNC				Private Vehicles			
		%	Persons	%	Persons	AVO	Vehicles	%	Persons	AVO	# Vehicles
Attendees	18,000	8%	1,440	10%	1,800	2.4	750	82%	14,760	2.4	6,150
Employees	1,100	5%	66	2%	26	1.2	22	93%	1,228	1.2	1,023
Total	19,100		1,506		1,826		772		15,988		7,173

Tables 6, 7, and 8 show the results of this analysis, conservatively assuming a 7:00 PM game start time on weeknights and a 6:00 PM game start time on weekends. Although the Clippers have indicated that NBA regular season games would typically start at 7:30 PM on most days, 7:00 PM will be used for the weeknight start time and 6:00 PM for the weekend day start time as a conservative assumption, since background traffic volumes are higher in the hour prior to these start times compared to a 7:30 PM start time. If 7:30 PM were analyzed for weekday games, background traffic would be 9.9% lower compared to 7:00 PM.

² Inglewood Basketball and Entertainment Center (IBEC) Project Demands. November, 2018.

The trip generation estimates for pre-game arrivals or post-game departures are shown in Table 5 and continue to be refined for use in this study.

For both the weekday and weekend pre-event periods, the existing peak hour based on count data occurs prior to the hour immediately before the start of the game. However, once estimated project volumes are added, the peak hour shifts to the hour immediately prior to the game. The weekday post-event peak hour does not change with the addition of project trips.

Hour Start Time	Existing One Hr Volume	Project One Hr Volume	Total One Hr Volume
4:00-5:00 PM	4,979	80	5,059
4:15-5:15 PM	4,887	80	4,967
4:30-5:30 PM	4,930	80	5,010
4:45-5:45 PM	4,775	400	5,175
5:00-6:00 PM	4,709	2,161	6,870
5:15-6:15 PM	4,752	3,202	7,954
5:30-6:30 PM	4,571	4,242	8,813
5:45-6:45 PM	4,491	4,842	9,333
6:00-7:00 PM	4,274	5,443	9,717
6:15-7:15 PM	4,051	4,202	8,253
6:30-7:30 PM	3,889	2,961	6,850

Note: Bold represents the peak hour

Hour Start Time	Existing One Hr Volume	Project One Hr Volume	Total One Hr Volume
9:30-10:30 PM	2,310	6,963	9,273
9:45-10:45 PM	2,211	4,042	6,253
10:00-11:00 PM	2,111	1,121	3,232
10:15-11:15 PM	2,075	800	2,875
10:30-11:30 PM	1,968	480	2,448

Note: Bold represents the peak hour

Hour Start Time	Existing One Hr Volume	Project One Hr Volume	Total One Hr Volume
4:00-5:00 PM	3,987	2,161	6,148
4:15-5:15 PM	3,924	3,202	7,126
4:30-5:30 PM	3,917	4,242	8,159
4:45-5:45 PM	3,785	4,842	8,627
5:00-6:00 PM	3,688	5,443	9,131

Note: Bold represents the peak hour

Based on the data available, the peak hours to be analyzed for the three evening event time periods are listed below.

- Weekday (7 PM start time):
 - Pre-event: 6:00-7:00 PM

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- Post-event: 9:30-10:30 PM
- Weekend (6 PM start time):
 - Pre-event: 5:00-6:00 PM

Although the length of both NBA games and concerts will vary, the analysis assumes a two hour and 30 minute event, resulting in an end time of 9:30 PM. This is a conservative assumption as background traffic in the evening is higher during the hour beginning at 9:30 PM than in later hours. A weekend post-event analysis will not be conducted as part of the study, as the conditions in a weekday and weekend post-event are expected to be similar.

II. Trip Generation

The study will conduct three sets of trip generation estimates, with each scenario described in more detail below.

Non-Event Days

Trip generation for non-event days assumes "normal" conditions at the site with no events (such as an NBA game, a concert, a convention, a corporate event, etc.) taking place. Trip generation will be based on the land uses and employment on the site, as described in the NOP, revised in recent site plans for the project, and clarified and refined by the applicant's team. Based on the most recent site plan, the following land uses and quantities are assumed to be on the site and operating on a non-event day:

Part of Arena Structure:

- Office: 71,000 square feet (sf)
- Practice and Training Facility: 85,000 sf
- Sports Medical Clinic: 25,000 sf

Plaza Uses

- Community Space: 15,000 sf
- Full-Service Restaurant/Lounge: 15,000 sf
- Hotel: 150 rooms
- Coffee Shop: 5,000 sf
- Quick-Service Restaurant: 4,000 sf
- Team Store: 7,000 sf
- Other Team/Experience/Retail: 17,000 sf
- Park/Plaza: 6.0 acres

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The NOP states that the medical clinic may be open to the public, and based on previous comments at team meetings, we are assuming the full clinic space will be open to the public. Based on employment estimates provided by the applicant in September 2018, we assume there will be a maximum of 329 Clippers employees at the IBEC on non-event days, as shown in Table 9.

Table 9. Los Angeles Clippers Employees at IBEC		
Employment	Description	Total Employees
Basketball Operations	Players, coaches, training staff, etc.	54
Business Operations	Executive management, legal, finance, human resources, media and broadcasting staff, public and community relations, hospitality services, etc.	100
Business Operations Support	Customer service, sales and marketing support, team operations support	100
Arena Operations and Management	Management, arena maintenance and operations, security, housekeeping	75
Total		329

In addition, the September 2018 employment estimates noted the number of employees for ancillary uses at the IBEC, as shown in Table 10.

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Employment	Description	Total Employees
Restaurant	Full staff and management for full-service restaurant(s)	112
Shopping Center / Retail	Flagship team store, quick-service restaurant and coffee shop, and general retail/service employees	146
Sports Medicine Clinic	Care providers (doctors, nurses, specialists) and business operations staff	35
Arena & Plaza Experience	Staff for LA Clippers and IBEC arena experiences	70
Community Space	Staff, management, and instructors for flexible community space, meeting rooms/classrooms, and related areas	26
Hotel	Staff and management for limited service hotel	50
Total		439

The trip generation for most uses (office, medical clinic, community space, restaurant, and retail) will be based on the square footage of the proposed site plan using trip generation data from *Trip Generation, 10th Edition*, as the staffing levels provided by the applicant may change over time. For the practice facility, trip generation will be based on the number of staff at these locations, as this land use does not have a comparable land use code in ITE that factors in the unique nature of the IBEC. We will assume that the medical clinic will specialize in Sports Medicine and will be open on weekdays during normal business hours, similar to the Kaiser-operated sports medicine clinic within the Golden 1 Center in Sacramento.

Mode split data, internalization rates, and pass-by credits will be developed using NCHRP 684,³ Fehr & Peers developed MainStreet tool – which combines NCHRP 684 and additional survey data, ITE data on pass-by trips, and local knowledge of the transportation system.

³ *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*, National Cooperative Highway Research Program 684, 2011.

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Evening Event

Trip generation methodology is described in more detail in a separate memorandum⁴. Trip generation for an evening event assumes a sold-out game (18,000 attendees) and maximum staff at the arena and ancillary development for the pre-event hours. The trip generation for game patrons is estimated by calculating the mode share for transit, private vehicles, and transportation network companies (TNCs) such as Lyft and Uber. Transit mode share assumes some shuttling between the IBEC and the Metro Green and Crenshaw Lines. The exact number of shuttle buses needed for the project will be calculated during the EIR analysis. Mode share is based on the Clippers fan survey administered in spring 2018, expected fan origins and destinations,⁵ and data from other NBA arena studies.

AVO for TNCs and private vehicles has been developed using data from the Clippers fan survey. The trip generation factors in the arrival and departure patterns of fans, so that the trip generation is only considering the peak hour of arrivals and departures (arrival and departure peak hours are discussed in more detail above).

Employee trip generation assumes 1,320 event-day employees are required for a sold-out NBA game, based on IBEC event information from the applicant. Arrival and departure data is based on data provided by the applicant and data from other similar projects. Employee trip generation is estimated in a similar manner as the attendee trip generation, factoring in AVO and mode split. Data on mode split and AVO is derived from previous arena traffic studies and other existing data where available.

For the weekday post-event hour, the evening event assumes a sold-out concert (18,500 attendees) with 1,120 event-day staff, based on IBEC event information from the applicant. Trip generation is calculated using the same methodology as NBA games. The percent of patrons using transit and TNCs is assumed to be the same as weekday NBA game. AVO is taken from vehicle occupancy counts from a concert at The Forum, as are vehicle arrival patterns, which are shown in Table 1B. Employee arrival and departure data is based on data provided by the applicant and other similar projects.

⁴ *Inglewood Basketball and Entertainment Center (IBEC) Project Demands*. November, 2018.

⁵ Fan origin and destination is described in more detail below.

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Daytime Event

Trip generation for the daytime event will look at two event types using data from the *Anticipated Annual Event Characteristics* provided by the applicant in September 2018. The AM peak hour will analyze a corporate/community event with an attendance of 2,000 people and 25 employees and a start time assumed to be 9:00 AM. The PM peak hour will analyze an event with an attendance of 7,500 and 480 employees, with a start time of 6:00 PM. Trip generation will be estimated using a similar methodology as the NBA game scenario by calculating transit, TNC, and private vehicle mode share, AVO, and the percent of attendees and employees arriving in the peak hour. Data on employee arrival will be based on data submitted by the Clippers. Data on mode share and arrival patterns will be sourced using mobile source data ("big data") from events at The Forum and regional population distribution.

III. Concurrent Events

As shown in Table 1B, the analysis includes evaluating traffic conditions when concurrent events are taking place at The Forum and the NFL stadium. In order to properly evaluate events at The Forum, Fehr & Peers conducted driveway counts to evaluate event arrival patterns, and analyzed mobile source data ("big data") to estimate origins and destinations for attendees at The Forum. As the NFL stadium is under construction, we will rely on estimates from the City about travel behavior to the stadium. Based on the current NFL schedule, we are assuming a concurrent weekday NFL game would begin at 5:20 PM and end at approximately 8:20 PM, while a concurrent weekend NFL game would begin at 1:25 PM and would end at approximately 4:25 PM. Events at the Forum are assumed to start at 7:00 PM on weekdays or weekends. Traffic for these events will be scaled appropriately to coincide with the peak hour of analysis for the IBEC. The analysis will assume 6,000 employees for an event at the NFL stadium, and 1,120 for an event at The Forum. Staffing for The Forum is based on staffing data for concerts that was provided by the applicant, and staffing data at the NFL stadium was provided by City staff.

Due to the magnitude of vehicles that drive to the concurrent events, some vehicles that typically travel on streets near the project site will likely alter their paths to adjacent streets that will be less congested. In order to estimate how concurrent events will affect traffic, Fehr & Peers will modify link capacity in the SCAG travel demand model to replicate the effects of congestion, and run the model's vehicle assignment process. Figure 1 shows the SCAG travel demand model roadway network, which will be expanded near the IBEC, NFL Stadium, and The Forum. This will produce a new set of model volumes estimating how traffic will be affected near the project site on days with concurrent events, which will inform base traffic volumes for



Figure 1. SCAG travel demand model roadway network. The network will be expanded to allow for more detailed estimates of how congestion due to concurrent events will affect travel patterns.

the concurrent event scenarios in the IBEC EIR. Link capacities in the SCAG travel demand model will be adjusted to replicate the three concurrent event scenarios shown in Table 1B.

As concurrent events are expected to start and end at different times, the amount of vehicle traffic that overlaps between the events will vary. Table 11A and Table 11B depict the percent of project traffic that will occur in the IBEC analysis periods.

Table 11A. Weekday Arrival and Departure Percentage for IBEC and Concurrent Events																
Event	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	6:30 PM	7:00 PM	7:30 PM	8:00 PM	8:30 PM	9:00 PM	9:30 PM	10:00 PM	10:30 PM	11:00 PM	11:30 PM
IBEC		2%	7%	20%	33%	35%	2%				5%	77%	10%	4%	2%	1%
Forum			13%	28%	37%	22%							42%	43%	15%	
NFL	10%	19%	20%	3%	2%	0%			10%	32%	32%	20%	6%			
Note: Event start time shown in yellow Event end time shown in orange Peak hour for analysis for IBEC EIR shown with black outline																
Table 11B. Weekend Arrival and Departure Percentage for IBEC and Concurrent Events																
Event	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	6:30 PM	7:00 PM	7:30 PM	8:00 PM	8:30 PM	9:00 PM	9:30 PM	10:00 PM	10:30 PM	11:00 PM	11:30 PM
IBEC	7%	20%	33%	35%	2%			5%	77%	10%	4%	2%	1%			
Forum			13%	28%	37%	22%							42%	43%	15%	
NFL	10%	32%	32%	20%	6%											
Note: Event start time shown in yellow Event end time shown in orange Peak hour for analysis for IBEC EIR shown with black outline																

IV. Trip Distribution

Fehr & Peers will develop three trip distribution patterns:

- Non-event days, which will be derived using data from the Southern California Association of Governments (SCAG) travel demand model.
- NBA games, which will be derived using a combination of:
 - Data on existing season ticket holders provided by the team and organized by zip code;

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- Mobile source data (“big data”) records tracking origins and destinations of fans attending games at Staples Center; and
- Responses from the Clippers fan survey.
- Daytime events, which will be derived using the Southern California Association of Governments (SCAG) model and data from previous similar events.

V. Parking and Vehicle Assignment

For the non-event days and daytime scenarios, all parking is assumed to occur on-site. Parking for the office space and practice and training facility would occur in the parking structure south of the arena, while all other parking would occur in the parking structure west of Prairie Avenue.

For the evening event scenario, all parking is assumed to take place on-site or at Hollywood Park for events that are not happening concurrently with an NFL game. When an event at the IBEC is happening concurrently with an NFL game, all parking is assumed to take place within the study area (defined as the area bounded by the study intersections). Fehr & Peers will use a parking survey provided by City staff to assign vehicle trips to nearby parking lots. Vehicles will be assigned to parking lots and structures based on the capacity of parking in each lot or structure and the proximity to the IBEC. Parking and vehicle assignment may change during concurrent events at The Forum and/or NFL Stadium.

VI. Developing Future Base Traffic Projections

Future base traffic projections will reflect growth in traffic from two sources: background or ambient growth in the existing traffic volumes to reflect the effects of overall regional growth both within and outside of the study area, and traffic generated by related projects in, or in the vicinity of, the study area. These factors are described below.

Ambient Growth

An areawide traffic growth of 0.23% per year will be used for all study intersections and freeway facilities, based on data from the most recent CMP showing the general traffic volume growth factors for the region where the project and study intersections are located. This rate was derived for the period between 2010 and 2025, and therefore represents a conservative estimate of ambient growth between 2018 and 2024.

Related Development Projects

The project team prepared a cumulative projects list to identify reasonably foreseeable projects anticipated to be constructed in the near term in order to form a basis for analysis of cumulative impacts in the EIR. The project team contacted planning staff from the cities of

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Inglewood, Los Angeles, Culver City, El Segundo, Manhattan Beach, Lawndale, Hawthorne, and Gardena. Additionally, Los Angeles County planning staff was contacted regarding pending projects in the unincorporated areas of the County of Los Angeles and the communities of Baldwin Hills, Del Aire, Gardena Valley, Lennox, View Park, West Athens, and Westmont. This outreach effort resulted in a cumulative project list of over 100 related projects.⁶ This cumulative project list will be used to estimate cumulative traffic volumes.

Related project volume projections will be conservative in that they will not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.).

Trip generation will be developed for each project, either from an existing environmental document or using data in *ITE Trip Generation, 10th Edition*. Related project vehicle volumes will then be assigned to the network depending on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees and potential patrons of the proposed developments are drawn, the location of the employment and commercial centers to which residents of residential projects would be drawn, and the location of the projects in relation to the surrounding street system. If available, trip distribution from a related project's traffic study will be used in this analysis. When trip distribution data is not available for a cumulative project, it will be estimated based on the factors described above.

In addition to the related projects list received from Trifiletti Consulting, the related project list also includes projected growth at Los Angeles International Airport (LAX). Growth is taken from the Landside Access Modernization Program (LAMP) EIR dated September 2016, by comparing 2015 trip generation and 2024 trip generation at the airport. Distribution of trips will be based on the data from the LAMP EIR and in the SCAG model.

VII. Developing Future Baseline Transportation Network

The future transportation network will incorporate planned and funded improvements that are part of cities' capital improvement plans (CIPs) or as project design features or mitigations measures for planned projects. Future network improvements for the analysis will include improvements from:

- Inglewood CIP
- LAX LAMP EIR
- LAX Northside Plan EIR
- Hollywood Park Redevelopment Stadium Alternative, as approved by voters

⁶ *Related Project List Methodology for the proposed Inglewood Basketball and Entertainment Center (IBEC). September 18, 2018. Trifiletti Consulting.*

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Summary information was submitted to staff at the City of Inglewood and Los Angeles World Airports to confirm assumptions regarding what will be completed by 2024 when the IBEC is scheduled to open. Staff from the City of Hawthorne and Los Angeles County stated that there are no planned improvements that would alter roadway capacity at study intersections in those jurisdictions.

We look forward to continuing to work with you and City staff to resolve the last open issues and with the transportation impact analysis. We can be reached at 213-261-3050. Thank you.

DRAFT