

TECHNICAL MEMORANDUM

DATE: March 12, 2015

TO: Noel Stillings, Senior Planner
Planning Division, Metropolitan Planning Section
Miami-Dade County Department of Regulatory and Economic Resources
111 NW 1st Street, 12th floor, Miami, Florida 33128

FROM: Richard Garcia, P.E.
Richard Garcia & Associates, Inc.
8065 NW 98th Street
Hialeah Gardens, Florida 33016

SUBJECT: CDMP Amendment - Keep the Bleau Green Traffic Study - Charter School 1200 K-12
AM Peak Link Analysis

Based on a recent teleconference held on March 10th, 2015 with you and staff regarding the subject project, we have decided to provide the requested AM peak hour link analysis on Fontainebleau Boulevard as requested by staff. Please note that we disagree that such an analysis is required under the County's CDMP (Comprehensive Development Master Plan), which merely requires as follows:

TC-1B. The minimum acceptable peak period operating level of service...

Because we believe peak period means the average of the two highest consecutive hours of traffic volume during a weekday rather than the single highest hour, alone, we believe the AM peak hour link analysis is inappropriate. The above notwithstanding, we are herby providing the following AM peak hour analysis.

AM Peak Hour Analysis

Based on Automatic Traffic Recorder (ATR) traffic counts provided in our Traffic Impact Study the existing AM Peak Hour two-way traffic volume was found to be 2,138 vph (vehicles per hour) which results in an LOS D. The future year (2018) without project AM Peak Hour two-way traffic volume was found to be 2,225 vph which results in an LOS D. Lastly, the future year (2018) with project AM Peak Hour two-way traffic volume was found to be 2,891 vph which results in an LOS D.

It is important to note that these future year (2018) analyses were based on a 1 percent annual traffic growth rate, whereas the historical growth trends analysis using the FDOT and Miami-Dade Count Station both yielded negative traffic growth as summarized below:

- [FDOT Count Station # 1142:](#) -1.18% Annual Growth (2004-2013 data)
- [Miami-Dade Count #9154:](#) -7.75% Annual Growth (2008-2013 data)
- [Miami-Dade Count #9156:](#) -4.04% Annual Growth (2008-2013 data)

AM-PHP Analysis

In order to provide an AM peak hour analysis that we believe is consistent with the CDMP, we have also performed an AM Peak Hour Period (AM-PHP) analysis. The following is a brief summary of the

findings while the Attachment includes the analysis sheets. Therefore, the AM PHP analysis yields the following:

- **Existing (2015) AM PHP:** 2,054 vph, LOS D
- **Short-term (2018) AM PHP:**
 - Without Project: 2,138 vph, LOS D
 - With Project: 2,537 vph, LOS D
- **Long Term (2030) AM PHP:**
 - Without Project: 2,409 vph, LOS D
 - With Project: 2,808 vph, LOS D

In conclusion, our previous analysis included in our Traffic Impact Study was performed consistent with the requirements of the CDMP (Comprehensive Development Master Plan) and found the project meets the Level of Service standards set forth by such. Additionally, the analysis requested herewith, an AM peak hour link analysis, goes beyond the CDMP criteria but also finds the project meets both the AM peak hour link LOS as well as the AM Peak Hour Period (AM-PHP) link LOS on Fontainebleau Boulevard.

ATTACHMENT

Policies

- TC-1A. Miami-Dade County will continue to update and readopt a Long Range Transportation Plan, as periodically required, that will achieve Traffic Circulation Objective TC-1 above, in a manner consistent with the other objectives of the Comprehensive Development Master Plan (CDMP). Upon completion of each update of the Long Range Transportation Plan, Miami-Dade County shall prepare for submittal, pursuant to Chapter 163, Part II, F.S., proposals to enhance and revise the Traffic Circulation and Mass Transit Subelements of the Transportation Element as warranted by said technical findings and policy proposals, consistent with the goals, objectives and policies of the CDMP.
- TC-1B. The minimum acceptable peak period* operating level of service for all State and County roads in Miami-Dade County outside of the Urban Development Boundary (UDB) identified in the Land Use Element shall be LOS C. The minimum acceptable peak-period LOS for all State and County roads inside the UDB shall be the following:
- 1) Within the Urban Infill Area (UIA)²
 - (a) Where no public mass transit service exists, roadways shall operate at or above LOS E.
 - (b) Where mass transit service having headways of 20 minutes or less is provided within 1/2-mile distance, roadways shall operate at no greater than 120 percent of their capacity.
 - (c) Where extraordinary transit service such as rapid transit (e.g., commuter rail, Metrorail and People Mover), or premium bus service (e.g., bus rapid transit, express bus and enhanced bus systems) exists, parallel roadways within 1/2 mile shall operate at no greater than 150 percent of their capacity.
 - 2) Between the UIA and the UDB
 - (a) Roadways shall operate at no worse than LOS D (90 percent of their capacity) except that State Urban Minor Arterials (SUMAs) may operate at LOS E (100 percent of their capacity);
 - (b) Where public mass transit service exists having headways of 20 minutes or less within 1/2-mile distance, roadways shall operate at or above LOS E;
 - (c) Where extraordinary transit service such as rapid transit (e.g., commuter rail, Metrorail and People Mover), or premium bus service (e.g., bus rapid transit, express bus and enhanced bus systems) exists, parallel roadways within 1/2 mile shall operate at no greater than 120 percent of roadway capacity.
 - 3) Notwithstanding the foregoing, the following standards established by the Florida Department of Transportation (FDOT), are adopted by Miami-Dade County as

* Peak period means the average of the two highest consecutive hours of traffic volume during a weekday.

Note: LOS will be measured based on the latest edition of the Highway Capacity Manual.

² UIA is defined as that part of Miami-Dade County located east of, and including, SR 826 (Palmetto Expressway) and NW/SW 77 Avenue, excluding the area north of SR 826 and west of I-95.

**SUMMARY
MIAMI-DADE COUNTY
TRAFFIC CIRCULATION LEVEL OF SERVICE STANDARDS**

**Peak Period* LOS Standards
Non-SIS Roadways**

Location	Transit Availability		
	No Transit Service	20 Min. Headway Transit Service Within 1/2 Mile	Extraordinary Transit Service (Commuter Rail, Metrorail, People Mover, Bus Rapid Transit, Express Bus, or Enhanced Bus Service)
Outside UDB	LOS C-State Minor Arterials LOS C-County Roads and State Principal Arterials		
Between UIA and UDB	LOS D (90% of Capacity); or LOS E (100% Capacity) on SUMAs	LOS E (100% of Capacity)	120% of Capacity
Inside UIA	LOS E (100% of Capacity)	120% of Capacity	150% of Capacity

SIS Roadways

SIS Facility	Location				
	Outside UDB	Inside UDB	Roadways Parallel to Exclusive Transit Facilities	Inside Transportation Concurrency Management Areas	Constrained or Backlogged Roadways
Limited Access Facilities	C	D [E]	D [E]	D [E]	Manage
Controlled Access Facilities	C	D	E	E	Manage

NOTES: LOS inside of [brackets] applies to general use lanes only when exclusive thru lanes exist.
 SIS= Strategic Intermodal System
 UIA= Urban Infill Area--Area east of, and including NW/SW 77 Avenue and SR 826 (Palmetto Expressway),
 and excluding the area north of SR 826 and west of I-95.
 UDB=Urban Development Boundary
 SUMA=State Urban Minor Arterial

*Peak-period means the average of the two highest consecutive hours of traffic volume during a weekday.

TABLE: A8-AM Peak Hr

Keep the Bleau Green Development

AM Peak Hour ROADWAY LINK ANALYSIS; EXISTING (2014) & SHORT-TERM (2018)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ROADWAY	ROADWAY LINK ANALYSIS		DIR	EXISTING AM Peak Hr VOLUME	AVAILABLE CAPACITY	LOS	BACKGROUND GROWTH @ 1.00% FOR 4 YRS (2018)	FUTURE AM Peak Hr VOLUME (2018) W/O PROJECT	AVAILABLE CAPACITY	LOS	PROJECT TRIPS	FUTURE AM Peak Hr VOLUME (2018) W/ PROJECT	AVAILABLE CAPACITY	LOS
	LIMITS	ROADWAY CLASSIFICATION												
Fontainebleau Boulevard	west of Park Boulevard	4-Lane Divided County Road Class II - 35 MPH	TWO- WAY	2,138	902	D	87	2,225	815	D	666	2,891	149	D

1 Roadway Name
2 Limits

3 Roadway Classification

4 Direction

5 Existing Peak Hour Period (PHP) Volume obtained from ATR counts.
PHP = average of the two highest consecutive hours.

6 Available Capacity (Existing)

7 Existing Level of Service

8 Background Growth Calculation for short-term analysis 2018

9 Future PHP Volume w/o Project Traffic (Exist + Background)

10 Available Capacity (Future w/o Project)

11 Future LOS w/o Project

12 Project Trips

13 Future PHP Volume w/ Project Traffic (Exist + Background + Project)

14 Available Capacity (Future w/ Project)

15 Future LOS w/ Project Trips

LOS Standard for 4LD Class II - Two-Way Volumes

-	C	D	E
-	1,310	2,920	3,040

TABLE: A8 AM-PHP

Keep the Bleau Green Development

AM-PHP ROADWAY LINK ANALYSIS: EXISTING (2014) & SHORT-TERM (2018)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ROADWAY LINK ANALYSIS		ROADWAY CLASSIFICATION	DIR	EXISTING AM-PHP VOLUME	AVAILABLE CAPACITY	LOS	BACKGROUND GROWTH @ 1.00% FOR 4 YRS (2018)	FUTURE PHP VOLUME (2018) W/O PROJECT	AVAILABLE CAPACITY	LOS	AM-PHP PROJECT TRIPS	FUTURE PHP VOLUME (2018) W/ PROJECT	AVAILABLE CAPACITY	LOS
ROADWAY	LIMITS													
Fontainebleau Boulevard	west of Park Boulevard	4-Lane Divided County Road Class II - 35 MPH	TWO-WAY	2,054	986	D	83	2,138	902	D	400	2,537	503	D

Notes:

- 1 Roadway Name
- 2 Limits
- 3 Roadway Classification
- 4 Direction
- 5 Existing Peak Hour Period (PHP) Volume obtained from ATR counts.
PHP = average of the two highest consecutive hours.
- 6 Available Capacity (Existing)
- 7 Existing Level of Service
- 8 Background Growth Calculation for short-term analysis 2018
- 9 Future PHP Volume w/o Project Traffic (Exist + Background)
- 10 Available Capacity (Future w/o Project)
- 11 Future LOS w/o Project
- 12 Project Trips, 60% of PK Hr Trips
- 13 Future PHP Volume w/ Project Traffic (Exist + Background + Project)
- 14 Available Capacity (Future w/ Project)
- 15 Future LOS w/ Project Trips

LOS Standard for 4LD Class II - Two-Way Volumes			
	C	D	E
-	1,310	2,920	3,040

TABLE: A9 AM-PHP

Keep the Bleau Green Development

AM-PHP ROADWAY LINK ANALYSIS; EXISTING (2014) & LONG-TERM (2030)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ROADWAY LINK ANALYSIS		ROADWAY CLASSIFICATION	DIR	EXISTING PHP VOLUME	AVAILABLE CAPACITY	LOS	BACKGROUND GROWTH @ 1.00% FOR 16 YRS (2030)	FUTURE PHP VOLUME (2030) W/O PROJECT	AVAILABLE CAPACITY	LOS	PROJECT TRIPS	FUTURE PHP VOLUME (2030) W/ PROJECT	AVAILABLE CAPACITY	LOS
ROADWAY	LIMITS													
Fontainebleau Boulevard	west of Park Boulevard	4-Lane Divided County Road Class II - 35 MPH	TWO- County Road WAY	2,054	986	D	355	2,409	631	D	400	2,808	232	D

Notes:

- 1 Roadway Name
- 2 Limits
- 3 Roadway Classification
- 4 Direction
- 5 Existing Peak Hour Period (PHP) Volume obtained from ATR counts.
PHP = average of the two highest consecutive hours.
- 6 Available Capacity (Existing)
- 7 Existing Level of Service
- 8 Background Growth Calculation for long-term analysis 2030
- 9 Future PHP Volume w/o Project Traffic (Exist + Background)
- 10 Available Capacity (Future w/o Project)
- 11 Future LOS w/o Project
- 12 Project Trips
- 13 Future PHP Volume w/ Project Traffic (Exist + Background + Project)
- 14 Available Capacity (Future w/ Project)
- 15 Future LOS w/ Project Trips

LOS Standard for 4LD Class II - Two-Way Volumes			
-	C	D	E
-	1,310	2,920	3,040



Richard Garcia & Associates, Inc.

8065 NW 98th Street
Hialeah Gardens, FL 33016
PH: 305-362-0677
FAX: 305-675-6474

Page 1

Site Code: 000000000000
Station ID: 13919
FONTAINEBLEAU BOULEVARD
WEST OF PARK BOULEVARD
Latitude: 0' 0.0000 Undefined

Start Time	17-Dec-14 Wed	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		38	213			95	171				
12:15		46	228			62	207				
12:30		37	239			67	196				
12:45		24	210	145	890	50	172	274	746	419	1636
01:00		28	229			59	216				
01:15		17	238			39	188				
01:30		15	228			30	184				
01:45		15	206	75	901	21	174	149	762	224	1663
02:00		24	215			21	211				
02:15		14	232			30	215				
02:30		19	243			21	239				
02:45		17	179	74	869	16	242	88	907	162	1776
03:00		12	228			15	228				
03:15		15	200			20	248				
03:30		15	271			16	230				
03:45		18	226	60	925	17	237	68	943	128	1868
04:00		14	209			11	229				
04:15		34	251			11	267				
04:30		35	205			20	296				
04:45		34	232	117	897	28	276	70	1068	187	1965
05:00		45	237			22	307				
05:15		65	255			27	360				
05:30		91	229			29	358				
05:45		103	230	304	951	42	326	120	1351	424	2302
06:00		128	273			55	331				
06:15		175	257			63	333				
06:30		265	263			100	344				
06:45		240	230	808	1023	94	332	312	1340	1120	2363
07:00		296	221			127	307				
07:15		305	209			141	267				
07:30		334	199			131	267				
07:45		396	190	1331	819	174	262	573	1103	1904	1922
08:00		394	181			144	198				
08:15		408	164			165	216				
08:30		333	165			192	212				
08:45		322	152	1457	662	170	182	671	808	2128	1470
09:00		267	140			139	194				
09:15		234	146			146	194				
09:30		264	147			124	187				
09:45		234	114	999	547	142	159	551	734	1550	1281
10:00		238	111			136	162				
10:15		208	108			144	155				
10:30		210	109			122	142				
10:45		197	89	853	417	173	123	575	582	1428	999
11:00		204	73			155	116				
11:15		224	73			147	94				
11:30		233	54			190	101				
11:45		218	47	879	247	198	99	690	410	1569	657
Total		7102	9148			4141	10754			11243	19902
Percent		43.7%	56.3%			27.8%	72.2%			36.1%	63.9%
AM Peak	-	07:30	-	-	-	11:00	-	-	-	-	-
Vol.	-	1532	-	-	-	690	-	-	-	-	-
P.H.F.	-	0.939	-	-	-	0.871	-	-	-	-	-
PM Peak	-	-	05:45	-	-	-	05:15	-	-	-	-
Vol.	-	-	1023	-	-	-	1375	-	-	-	-
P.H.F.	-	-	0.937	-	-	-	0.955	-	-	-	-
Total										11243	19902

$$\begin{aligned}
 \text{AM Peak HR} &= 2128 (\text{Wed}) + 2148 (\text{Th}) / 2 \\
 &= \underline{2138 \text{ VPH}} \\
 \text{AM PHP} &= 1904 + 2128 / 2 + 8037 + 2148 / 2 \\
 &= \underline{2054 \text{ VPH}}
 \end{aligned}$$



Richard Garcia & Associates, Inc.

8065 NW 98th Street
Hialeah Gardens, FL 33016
PH: 305-362-0677
FAX: 305-675-6474

Page 2

Site Code: 000000000000
Station ID: 13919
FONTAINEBLEAU BOULEVARD
WEST OF PARK BOULEVARD
Latitude: 0' 0.0000 Undefined

Start Time	18-Dec-14 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		51	201			73	176				
12:15		38	236			60	173				
12:30		25	197			50	164				
12:45		24	191	138	825	40	213	223	726	361	1551
01:00		18	226			34	191				
01:15		18	234			39	202				
01:30		14	216			26	174				
01:45		6	205	56	881	32	196	131	763	187	1644
02:00		15	233			24	228				
02:15		12	218			20	221				
02:30		11	221			20	221				
02:45		20	224	58	896	17	263	81	933	139	1829
03:00		9	252			15	242				
03:15		16	216			13	244				
03:30		17	245			12	260				
03:45		20	231	62	944	9	277	49	1023	111	1967
04:00		15	251			12	287				
04:15		30	220			12	280				
04:30		32	250			17	273				
04:45		29	199	106	920	26	281	67	1121	173	2041
05:00		37	229			17	306				
05:15		60	238			33	337				
05:30		88	261			30	355				
05:45		102	259	287	987	47	328	127	1326	414	2313
06:00		146	262			58	365				
06:15		182	254			59	345				
06:30		239	232			83	368				
06:45		259	228	826	976	116	307	316	1385	1142	2361
07:00		306	251			119	308				
07:15		333	216			150	275				
07:30		377	219			158	287				
07:45		414	231	1430	917	180	262	607	1132	2037	2049
08:00		375	192			179	248				
08:15		377	221			142	232				
08:30		371	169			159	194				
08:45		354	151	1477	733	191	190	671	864	2148	1597
09:00		291	146			156	188				
09:15		228	140			135	171				
09:30		274	138			125	166				
09:45		212	107	1005	531	125	164	541	689	1546	1220
10:00		207	132			141	184				
10:15		212	121			137	156				
10:30		215	112			143	130				
10:45		195	96	829	461	145	125	566	595	1395	1056
11:00		210	92			157	121				
11:15		182	71			141	96				
11:30		188	62			172	99				
11:45		180	63	760	288	160	93	630	409	1390	697
Total		7034	9359			4009	10966			11043	20325
Percent		42.9%	57.1%			26.8%	73.2%			35.2%	64.8%
AM Peak	-	07:30	-	-	-	08:00	-	-	-	-	-
Vol.	-	1543	-	-	-	671	-	-	-	-	-
P.H.F.	-	0.932	-	-	-	0.878	-	-	-	-	-
PM Peak	-	-	05:30	-	-	-	05:45	-	-	-	-
Vol.	-	-	1036	-	-	-	1406	-	-	-	-
P.H.F.	-	-	0.989	-	-	-	0.955	-	-	-	-
Total										11043	20325
Total		14136	18507			8150	21720			22286	40227
Percent		43.3%	56.7%			27.3%	72.7%			35.7%	64.3%
ADT		ADT 31,256		AADT 31,256							