

Memorandum



Date: April 1, 2014 (March 21, 2014 memo revised based on comments at DIC meeting)

To: Eric Silva
Development Coordinator
Regulatory and Economic Resource Department

From: 
Antonio Cotarelo, P.E.
County Engineer
Public Works and Waste Management Department

Subject: DIC 12-128
Name: Ferro Development, LLC
Section 04 Township 54 South Range 39 East

I. PROJECT LOCATION:

SW 8 Street and SW 152 Avenue

II. APPLICATION REQUEST:

This application is seeking a request for a special exception to permit a public charter school facility including, kindergarten through 12th grade.

III. RECOMMENDATION:

Miami-Dade County Public Works and Waste Management Department (PWWM) has reviewed this project based on phasing the student population as proposed by the applicant (1,100 students in Phase I; 2,100 student in Phase II; 3,000 students in Phase III) and is in favor of the site plan but cautions that the intensity of use must not exceed beyond 2,100 students without further assessment. The school's management of the proposed queues within the roadway network and their impacts to existing driveways and side streets should be well documented before operating the school above 2,100 students.

Therefore, PWWM recommends approval of this application under the conditions that the project comments and requirements stated within this memo be fulfilled by the applicant; and that prior to expanding above 2,100 students, the applicant must obtain a conditional release memo authorizing the expansion from both PWWM and Regulatory and Economic Resources (RER) as contained in this PWWM memorandum. The purpose of this conditional release memorandum is to confirm that all roadways, intersections and side streets that may be blocked by a queue are operating at acceptable Levels of Service during the school's AM and PM peak hour. PWWM will require a traffic study that assesses the school's proposed traffic impacts at full capacity (3000 students) to be submitted as a prerequisite for obtaining a conditional release memo. This conditional approval provides the applicant an opportunity to demonstrate the ability to operationally manage the school's traffic impacts beyond 2,100 students.

IV. EXISTING ROADWAYS SERVICEABLE TO THIS APPLICATION:

Access to the site is available from the North and the South from SW 152 Avenue and SW 153 Place and access to the site from the East and the West from SW 8 Street (Tamiami Trail) and SW 10 Street.

V. ANTICIPATED TRAFFIC GENERATION AND CONCURRENCY:

A. Trip Generation (Based on Institute of Transportation Engineers)

1,458 AM Peak Hour Trips generated by this development

510 PM Peak Hour trips are generated by this development.

7,440 Daily Trips generated by this development

B. Cardinal Distribution

North	11%	East	52%
South	36%	West	1%

VI. IMPACT ON EXISTING ROADWAYS:

A. CONCURRENCY:

According to the CDMP the peak period means the average of the two (2) average consecutive hours of traffic volume during the weekday, which is the PM peak hour.

Station F-377 located on SW 8 Street east of Krome Avenue, has a maximum LOS "C" of **1510** vehicles during the PM Peak Hour. It has a current Peak Hour Period (PHP) of **1336** vehicles and **0** vehicles have been assigned to this section of the road from previously approved Development Orders. Furthermore, **Station F-377** with its PHP and assigned vehicles is at LOS "C". The **6** vehicle trips generated by this development when combined with the **1336** and those previously approved through Development Orders, **0**, equal **1342** and will cause this segment to remain at LOS "C" where the range of LOS "C" is from 1 to 1510 vehicles.

Station F-266 located on SW 8 Street east of SW 147 Avenue, has a maximum LOS "D" of **4680** vehicles during the PM Peak Hour. It has a current Peak Hour Period (PHP) of **3866** vehicles and additional **247** vehicles have been assigned to this section of the road from previously approved Development Orders. Furthermore, **Station F-266** with its PHP and assigned vehicles is at LOS "D". The **175** vehicle trips generated by this development when combined with the **3866** and those previously approved through Development Orders, **247**, equal **4288** and will cause this segment to remain at LOS "D" where the range of LOS "D" is from 3830 to 4680 vehicles.

Station 9810 located on SW 152 Avenue south of SW 8 Street, has a maximum LOS “C” of **1150** vehicles during the PM Peak Hour. It has a current Peak Hour Period (PHP) of **751** vehicles and **0** vehicles have been assigned to this section of the road from previously approved Development Orders. Furthermore, **Station 9810** with its PHP and assigned vehicles is at LOS “C”. The **242** vehicle trips generated by this development when combined with the **751** and those previously approved through Development Orders, **0**, equal **993** and will cause this segment to remain at LOS “C” where the range of LOS “C” is from 1 to 1420 vehicles.

Station 9665 located on SW 72 Street west of SW 157 Avenue, has a maximum LOS “EE” of **2388** vehicles during the PM Peak Hour. It has a current Peak Hour Period (PHP) of **851** vehicles and additional **38** vehicles have been assigned to this section of the road from previously approved Development Orders. Furthermore, **Station 9665** with its PHP and assigned vehicles is at LOS “D”. The **50** vehicle trips generated by this development when combined with the **851** and those previously approved through Development Orders, **38**, equal **939** and will cause this segment to remain at LOS “D” where the range of LOS “D” is from 1 to 1800 vehicles.

Station 9856 located on SW 157 Avenue north of Kendall Drive, has a maximum LOS “EE” of **4068** vehicles during the PM Peak Hour. It has a current Peak Hour Period (PHP) of **1331** vehicles and additional **28** vehicles have been assigned to this section of the road from previously approved Development Orders. Furthermore, **Station 9856** with its PHP and assigned vehicles is at LOS “C”. The **37** vehicle trips generated by this development when combined with the **1331** and those previously approved through Development Orders, **28**, equal **1396** and will cause this segment to remain at LOS “C” where the range of LOS “C” is from 1 to 2630 vehicles.

VII. Site Plan Comments:

- This land requires platting in accordance with Chapter 28 of the Miami-Dade County Code. Any right-of-way dedications and/or improvements required will be accomplished thru the recording of a plat.
- R7-4C signs (“No Stopping or Standing Tow-away Zone”) must be posted along the school’s SW 152 Avenue frontage.
- A two-lane one-way cross section for by-pass operations may not be proposed when adjacent to the passenger loading zone area. The furthest southern by-pass lane running the length of the passenger loading zone area must be eliminated so to maintain a single by-pass lane aligned with the driveway lanes further to the west.
- The proposed right-turn bay into Driveway 1 is sub-standard and must be revised to meet typical turn lane standards.

VIII. Traffic Study Comments:

The site’s allowable access connections and surrounding roadway network have influenced the school’s access route to require 99% of the school’s generated trips to arrive via SW 10 Street. The expected 95th percentile queues along the school’s primary access route, which were reported in the submitted traffic study that analyzed the school’s operation at 3,000

students, are expected to affect the operations of the residential side streets and driveways along the route. These queues are listed by intersections below.

- i. SW 10 Street with SW 153 Place
This intersection is proposed to operate as a traffic signal under police control. The queue lengths for these movements are dependent on management by the assigned police officer.
 - a) The reported eastbound lane queue of 371 feet or longer is expected to impact operations at SW 153 Path and SW 154 Avenue that connect to SW 10 Street at approximately 160 feet and 340 feet respectively from the intersection.
 - b) The reported southbound lane queue of 351 feet or longer may impact operations at a side street connecting to SW 153 Court that connects to SW 153 Place at approximately 450 feet from the intersection.
 - c) The reported westbound lane queue of 39 feet or longer may potentially impact operations at SW 153 Court and SW 153 Avenue that connect to SW 10 Street at approximately 110 feet and 310 feet respectively from the intersection.
- ii. SW 10 Street with SW 152 Avenue
 - a) The reported eastbound lane queue of 387 feet or longer will impact operations at SW 152 Court that connects to SW 10 Street at approximately 170 feet from the intersection.
 - b) The reported northbound left turn lane queue of 130 feet or longer will impact operations of the SW 152 Avenue through lane because the queue will exceed the 65 foot storage lane.
- iii. SW 8 Street with SW 153 Place
 - a) The reported northbound lane queue of 232 feet or longer may impact operations at Driveway #1 that connects to SW 153 Place approximately 250 feet from the intersection.
- iv. Driveway # 2 with SW 153 Place
This intersection is proposed to operate as a traffic signal under police control. The queue lengths for these movements are dependent on management by the assigned police officer.
 - a) The reported northbound lane queue of 598 feet or longer will impact operations at a side street connecting to SW 153 Court that connects to SW 153 Place at approximately 590 feet from the intersection.
- v. SW 8 Street with SW 152 Avenue
 - a) The reported eastbound lane group queue of 859 feet or longer may potentially impact operations at SW 153 Place that connects to SW 8 Street at approximately 910 feet from the intersection. This potential impact further emphasizes the need of an acceleration lane along SW 8 Street to act as a storage lane when queues reach these projected lengths.

Upon the schools request for expansion beyond the 2,100 students the applicant must examine, within the required traffic study, alternative access routes from SW 8 Street to the

school site that could potentially divert trips generated from east and northeast of this site (approximately 33% of the school trips).

IX. Traffic Operations Plan (TOP) Comments:

The Traffic Operation Plan dated March 13, 2014 must be revised to reflect the conditionally allowable (K-12th) student enrollment of 2,100 to arrive and dismiss within the three (3) proposed shifts.

• Project Requirements:

1. All off-site improvements shall be constructed prior to the school opening.
2. The existing “valley” gutter on both the east and west side of SW 153 Place must be replaced with curb and gutter between SW 8 Street and the Sausalito Bay main entrance driveway.
3. Police control at the intersection of SW 10 Street with SW 153 Place and at the site driveway number 2 is required.
4. A northbound right-turn acceleration lane at the intersection of SW 8 Street and SW 153 Place for vehicles turning right onto SW 8 Street must be constructed subject to Florida Department of Transportation (FDOT) approval.
5. The northbound left turn lane queue at the intersection of SW 10 Street with SW 152 Avenue must be assessed two months after the completion of Phase I and Phase II through a traffic study (to be reviewed and approved by PWWM) to evaluate deficiencies in the left turn storage lane. The applicant will be responsible to remedy any deficiencies found within the study by implementing improvements in the field.
6. The school must operate a minimum of 12 bus trips to fulfill the 20% student body busing commitment stated within the traffic study.
7. All project documents revised to incorporate any comments within this memo, including the Traffic Study and Traffic Operation Plan, must be submitted and filed within the zoning records of this project.
8. A School Speed Zone composed of signs (fluorescent yellow-green material must be used where applicable), pavement markings, and flashing beacons, is required to be installed along the school’s frontage roads (SW 152 Avenue, SW 153 Place and SW 8 Street). The installation of a speed zone along SW 8 Street may be postponed at this time until PWWM determines the need for this portion of the speed zone and the installation is approved by FDOT.
9. A “Declaration of Restrictions” in favor of PWWM must be recorded in the Official Records of Miami-Dade County, Florida prior to the date of the school opening. The “Declaration of Restrictions” shall include a TOP narrative and plan that has been found acceptable by PWWM.
10. The applicant will provide an annual traffic report, to be submitted and reviewed by PWWM and RER prior to the issuance of the annual Certificate of Use, that verifies compliance with the approved TOP.

- Standard Comments:

1. Public sidewalks are required to extend across all school driveways around the site. This will include pedestrian (ADA) ramps where applicable. All pedestrian crosswalks around the school must have zebra pavement markings.
2. Safe sight distance clearance is required at all driveways; therefore, no trees shall remain or be planted in any clear zones. No tree foliage or branches shall descend below 7 feet within the public right-of-way. All tree placements in sight triangles shall meet or exceed FDOT Index 546. Any proposed planting, relocation or removal of trees and other foliage including any installation of irrigation systems in the public right-of-way must be approved by the R.A.A.M. Division of the Parks Recreation and Open Spaces Department. Also, any relocation or removal of trees must be approved by RER. These approvals should be applied for, and received, prior to DIC Executive Council approval of this project. A "Covenant for Maintenance" agreement, recorded in the public records, must be provided prior to permitting any of these types of installations within the public right-of-way.
3. Plans submitted for Permit shall conform to MUTCD, PWWM and other appropriate standards for engineering design in the public right-of-way. Prior to formal submittal of plans for approval and permitting, a Dry Run Paving and Drainage submittal is required to review compliance with DIC conditions for approval and appropriate standards, and to rectify any discrepancies between existing facilities, plans, conditions for approval, or standards. Existing and proposed striping, signs, and lane widths must be shown on these plans for all adjacent roadways. Also, plans must indicate any existing or proposed private driveways across the streets adjacent to the school site.
4. All roadway improvements including, but not limited to, traffic signs, markings and signals shall be installed by the applicant adjacent to, or nearby, this facility to ameliorate any adverse vehicular impacts caused by the traffic attracted to this facility. Also, traffic control devices, e.g., crosswalks, may be required at locations remote from this site along safe routes to school to provide for pedestrian student safety. These requirements may be determined at the time of Dry Run submittal of Paving and Drainage Plans.
5. PWWM reserves the right to add or modify requirements based upon any additional information that may be received during this review process.

- c: Raul A. Pino, PLS, Department of Regulatory and Economic Resources
Jorge Vital, Development Impact Committee, Department of Regulatory and Economic Resources
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