

April 23, 2023

Ms. Katie Rodrigues
Executive Director
Orchid Montessori School
877 Broadway
East Providence, RI 02914

Re: **Orchid Montessori School**
Traffic Engineering Services
East Providence, Rhode Island
Pare Project No.: 23xxx.00

Dear Ms. Rodrigues:

Pare Corporation (Pare) has been requested to review the traffic circulation and parking at the existing Orchid Montessori School site and to assist in developing a plan for providing safe circulation and parking at the facility located at 877 Broadway in East Providence, R.I. The Orchid Montessori School provides a unique new Montessori Inclusion program for children ages 3-6. The goal of this school is to empower all children, regardless of neurotype, to learn, thrive and explore their passions. Currently, the school offers drop-in classes and is hopeful to launch a full-day program this Spring.

In developing this assessment and recommendations, Pare has visited the project site and has reviewed documents provided us by the school staff. The information provided includes:

- Application for Dimensional Variance
- Survey Plan of Existing Conditions
- Site Plan
- 300' Radius Map with Existing Uses
- Abutter Mailing List
- Site Plan Options
- Zoning Application with Responses

Project Description

The school site is located on the west side of Broadway approximately 800 feet north of the ramps for I-195. The development around the site on Broadway consists of a variety of uses including an Auto Body Shop just to the south of the school site, an orthodontics office to the north of the site, a church, hair salon, and other commercial and residential uses on the opposite side of Broadway. The development west of the site is predominantly residential but also includes other uses such as another Montessori School and a church.

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The building on the site is approximately 3,360 square feet. It is proposed, upon completion, to provide classroom space, a therapy room, a meeting room, a staff room, offices and restrooms. Access to the building is provided by an ADA accessible ramp in the front of the building and an entrance that provides access to the back parking area. Parking is currently only delineated by curb stops in front of the existing fence.

Access to the site is provided by two curb cuts. The first is an approximate 20-foot curb cut on Broadway. This curb cut is approximately 160 feet north of the unsignalized intersection of Broadway and Grove Avenue and approximately 125 feet south of the signalized intersection of Broadway with Grosvenor Avenue.

The second existing access is provided by a shared driveway curb cut on Grove Avenue and through an existing easement/driveway to the site. The curb cut is located approximately 85 feet from the unsignalized intersection of Broadway and Grove Avenue.

Broadway is a local arterial that also provides two-way traffic, north and south. The roadway in the vicinity of the site is approximately 40-feet wide. Broadway provides one lane of traffic in each direction until the northbound approach to the Grosvenor Avenue signalized intersection where it transitions into two lanes for left/thru and right/thru lanes.

Grove Avenue is a local collector road which carries two-way traffic on an approximately 28-foot-wide road. The roadway alignment is straight. On-street parking is allowed on the north side of Grove Avenue west of the site driveway.

Proposed Use

It is the intent of this school to provide a facility that will accommodate 18 students with the future potential to increase the capacity to 26 students in the fall of 2023. In addition to the building, on-site parking will be provided for staff and in accordance with guidance from the Department of Human Services, a useable outdoor space to meet their requirements will be provided. Staffing at the site will include three child care staff members and 1 to 2 persons who will be present in administrative or therapy roles.

For drop-off and pick-up operations at the school it is anticipated to have at least three staff members to transition children out and into the cars so that parents do not need to park during drop-off/pick-up. One staff member will take the child from the car and walk them to the door, one will help them transition from the hallway into the classroom, and one will be in the classroom to support their transition to a chosen activity to start the day. Likewise, the staff will also assist in escorting the students to their parent's vehicle at the end of the day. Pick-up of the students will also occur at the end of a ramp in the front of the building.

It is proposed that the arrival times will be set on a staggered schedule between the hours of 8:00-8:45 a.m. Five (5) minute windows will be designated to parents for drop-off, with the intent of allowing between two (2) and three (3) students to arrive every 5 minutes. At the end of the day, the dismissal will also occur in a similar staggered manner with 5-minute interval departures that will occur between 3:45 and 4:30 p.m.

Site Layout

Several alternatives for the site layout have been developed to accommodate the drop-off and pick-up operations of students, provide parking for the staff and provide a play area that will be used for outdoor play by the students with staff oversight. Due to site constraints and the need for providing appropriate aisle widths for turning movements, the proposed layout is to provide one-way traffic circulation that will occur clockwise around the building. With this pattern, all vehicles will enter from Grove Avenue, circulate around the building and drop-off the students at the ramp in the front area of the building and then exit onto Broadway. This operation and circulation will allow ample room for at least 5 vehicles, that may stack on-site for drop-off and pick-up.

Four parking spaces will be provided in the rear of the site, one 90-degree perpendicular space and three 60-degree angled parking spaces. An additional van-accessible handicap parking space will be provided in the front of the building. In addition to the on-site parking, there is also on-street parking allowed on Grove Avenue in the vicinity of the project site if it is necessary.

In addition to the parking and circulation, there is a requirement that a useable outdoor use area be provided. This area, based on the Department of Human Resources guidelines, recommends providing at least seventy-five square feet of usable outdoor space per child. The school intends to split the school into two shifts for outdoor play, meaning the approximate number of students playing outside should not exceed 13 students at any time. The proposed outdoor space on this site will be in a secured area in front of the building. The proposed area as laid out on the plans will provide 1,036 square feet of outdoor play area which far exceeds the Department of Human Services guidelines for 13 students, which would require 975 square feet.

Site Access

With the proposed development it is anticipated that minimal additional traffic will be generated from the site. The morning peak hour will occur between 7:45 a.m. to 8:45 a.m. and the afternoon peak hour will occur between 3:45 p.m. to 4:45 p.m. With the staff and the number of students proposed (26 maximum) this will generate 26 trips to the site through the Grove Avenue entrance and 26 trips leaving the site through the Broadway entrance. This equates to an average of approximately 1 car every 2-1/2 minutes. The small volume of traffic that will occur staggered throughout the hours will have no significant impact to the traffic capacity on the site entrances and on the surrounding intersections and roadways.

As far as safety at the egress from the Broadway entrance, the sight lines exceed the requirements of the American Association of State Highway Officials *Policy on Geometric Design of Highway and Streets* for sight distance. The egress from this driveway will also have the benefit of the Grosvenor Avenue/Broadway signalized intersection, as the operation of this signal will also provide gaps in the traffic stream along Broadway. Based on our observations, Pare is of the opinion that safe access will be provided in and out of the site and that no significant impacts to traffic flow or capacity will occur.



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Based on the review of documents provided, our site reviews and the development of the site layout, we are of the opinion that the proposed layout will be satisfactory for site circulation, parking and safety. If you have any questions or require any additional information, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'John P. Shevlin', with a stylized flourish at the end.

John P. Shevlin, P.E.
Chief Executive Officer

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