



VILLAGE OF DOBBS FERRY BOARD OF TRUSTEES AGENDA

MEETING DATE: MAY 26, 2020
AGENDA ITEM SECTION: PUBLIC HEARING
AGENDA ITEM NO. : 2
AGENDA ITEM: CONTINUATION OF PUBLIC HEARING TO CONSIDER THE APPLICATION OF 115 BROADWAY/ST. CABRINI TO ADD A NEW PARKING LOT ON THEIR PROPERTY
ITEM BACKUP DOCUMENTATION: 1. LETTER DATED MAY 19, 2020 FROM MR. GEORGES JACQUEMART, P.E., PP, AICP PRINCIPAL BFJ PLANNING TO MAYOR ROSSILLO AND THE BOARD OF TRUSTEES



May 19, 2020

Mayor Vincent Rossillo and Honorable Members of the Board of Trustees
Village of Dobbs Ferry
112 Main Street
Dobbs Ferry, NY 10522

Subject: Review of Parking and Traffic Elements of Westchester Cabrini Application

Dear Mayor Rossillo and Members of the Board of Trustees:

The purpose of this letter is to review the application by Cabrini of Westchester to add 25 parking spaces to their site at 115 Broadway in Dobbs Ferry. We reviewed the material that the applicant submitted to the Dobbs Ferry Planning Board and to the Board of Trustees.

Cabrini of Westchester has been described as a nursing home combined with a day care program and a Home Care program. The nursing home component has a total of 306 beds, with 136 beds in private rooms and a 170 beds in semi-private rooms (2 beds per room) for a total of 221 bedrooms. In addition, there are six (6) bedrooms on site for nuns who are staff/volunteers and live at Cabrini.

The day care program does not have beds. There are 17 employees of the day program who are based on site and go out to make visits to members as well. Between 25 and 28 members are on site any given day. They are transported by van or car service between 8 AM and 6 PM. There are family members who come in for care plan meetings for about 30 minutes about 5 times a month.

The Home Care program has 14 employees. All have offices on site and many go out on home visits.

Cabrini indicated that they have a total of 425 people employed on their site and that on a typical day they have about 188 employees on site during the main shift. A one day verification on May 30, 2019 indicated that a total of 111 visitors checked in at Cabrini on that day.

The site has a total of 190 parking spaces according to the application. BFJ counted a total of 192 spaces on aerial photos, organized in two parking lots, a southerly lot with 93 spaces and a northerly lot with 99 spaces.

Cabrini's Parking Need

The applicant presented parking occupancy data that were collected at half-hour intervals between 10 AM and 4 PM on Wednesday June 19, 2019 and Thursday June 20, 2019. On both days there were moments when the number of cars exceeded the number of parking spaces. On Wednesday 6/19 there was a deficit up to 12 spaces peaking around 12:30 to 1:00 pm, and on Thursday the deficit was as high as 15 spaces mostly around 3:00 to 3:30 pm. These observations show that the deficit is not always related to the afternoon shift overlap, but there seems to be other program related events creating parking surges.

CHARLOTTE
CHICAGO
NEW YORK CITY
PITTSBURGH
STAMFORD

PAUL BUCKHURST ARIBA, AICP
FRANK S. FISH FAICP
GEORGES JACQUEMART PE, AICP

BUCKHURST FISH
& JACQUEMART, INC.
115 FIFTH AVENUE
NEW YORK, NY 10003
T. 212.353.7474
F. 212.353.7494

WWW.BFJPLANNING.COM

Dobbs Ferry Board of Trustees
May 19, 2020
Page 2

The applicant also submitted an aerial photo that was taken at 3:55 pm on Wednesday, November 14, 2018 and showed a deficit of 14 spaces.

BFJ undertook a separate review of other aerial photos that are commercially available to verify parking occupancies in the Cabrini lots. Exhibit 1 summarizes the occupancies observed on the random days and random hours of the aerial photos taken between April 2018 and March 5, 2020. All observations except the July 25, 2019 observation at 9:04 AM were taken during times deemed to be peak periods – noon to 3:30 pm. For the Google Earth photos we could not determine the exact times but the photos appear to be taken during high demand periods. The peak period photos all show total parking occupancies ranging from 95% to 105% of the identified capacity. Note that the aerial photo observations taken between 12 noon and 1:30 pm were either higher or the same as the one taken during the shift overlap time.

Parking occupancies are generally considered at capacity when they reach levels of 85% to 95% of the theoretical capacity. The reason for this adjustment is that it is very difficult for a vehicle arriving in a parking facility to find the last available parking spaces. This adjustment factor for the practical capacity depends on the design of the parking facility and on the type of users. When a parking lot has several sections or several parking aisles and when the users tend to be primarily visitors the adjustment factor is closer to 0.85, as compared to, for instance, a sloped-floor garage with one parking aisle circulating up the garage where drivers easily find the first or last available parking space. In that case the adjustment would be closer to 0.95. In the case of Cabrini where we have two separate parking lots we would estimate that the practical capacity is close to 0.90 or about 172 cars.

All occupancies identified by either the applicant or BFJ exceed the practical capacity level of 172 cars (except the 9:04 am measurement on July 26, 2019). Two occupancy measurements provided by the applicant and one measurement found by BFJ also exceed the theoretical capacity of 192 spaces. BFJ concludes that the parking demand of Cabrini of Westchester does exceed the capacity of the two parking lots, and that the 25-space addition is a reasonable target to alleviate this condition. The parking shortage can be addressed by the addition of 25 spaces or by reducing the demand by 25 cars.

The parking occupancy data show that the shortage is mostly observed in the south lot where most often the number of illegal parkers exceeds the number of vacant spaces, whereas in the north lot the number of vacant spaces most often exceeds the number of illegal parkers. It is interesting to note that the occupancy data show illegal parkers at the same time as there are vacant spaces in the same lot. This reflects the fact that the illegal parkers may have arrived at a moment when there were no vacant spaces, or that there is a general perception that parking is at capacity and that one may as well park at a location that may be illegal, but convenient. It also reflects that parking is not sufficiently enforced.

Exhibit 1: Cabrini of Westchester Parking Occupancies

St. Cabrini Nursing Home - 115 Broadway, Dobbs Ferry, NY 10522

Survey Day	Aerial Time of Day	North Lot: 99 Total Spaces					South Lot: 93 Total Spaces				Total	
		Parked Non-Visitors (81 max)	Parked Visitors (18 max)	Available Spaces	Illegal Parkers	Vehicles in Loading Zone	Parked Vehicles	Available Spaces*	Illegal Parkers	Vehicles in Loading Zone	Total Parked Cars	Percent Occupancy
Thursday, March 5, 2020	12:06 PM	65	14	20	1	3	89	4	13	0	182	94.8%
Thursday, July 25, 2019	9:04 AM	37	6	56	1	1	89	4	6	0	139	72.4%
Wednesday, June 26, 2019	--	62	15	22	1	1	91	1	16	1	185	96.9%
Thursday, March 28, 2019	1:36 PM	66	18	15	3	2	85	7	15	0	187	98.4%
Thursday, November 8, 2018	12:42 PM	74	18	7	3	1	91	2	13	0	199	104.7%
Wednesday, May 23, 2018	--	78	18	3	4	1	84	9	3	0	187	97.4%
Monday, April 23, 2018	3:27 PM	63	17	19	14	2	82	11	6	1	182	94.8%

Notes: Cars parked in the loading zone of the Cabrini North Lot are not counted as "illegal" if they are parked against the sidewalk or the building because it is presumed they are loading. If they are parked against a grassed area, they are considered illegal. In the South Lot, cars are considered "illegal" if they are not parked in a parking space. Vehicles that are considered loading were not counted in the total number of parked vehicles.

*Note: One space in the Cabrini South parking lot was not counted on 6/26/19 because it was obscured by tree cover, and one space was not counted on 3/28/19 because it was blocked with cones.

St. Christopher's - 71 South Broadway, Dobbs Ferry, NY 10522

Survey Day	Aerial Time of Day	Vacant Spaces in Northeast Lot (49 max.)	Percent Occupancy
Thursday, March 5, 2020	12:06 PM	23	46.9%
Thursday, July 25, 2019	9:04 AM	11	22.4%
Wednesday, June 26, 2019	--	21	42.9%
Thursday, March 28, 2019	1:36 PM	10	20.4%
Thursday, November 8, 2018	12:42 PM	10	20.4%
Wednesday, May 23, 2018	--	7	14.3%
Monday, April 23, 2018	3:27 PM	27	55.1%

Note: This count of vacant spaces only includes the northeastern most parking lot at St. Christopher's, which has a total of 49 spaces. This lot has the potential to be integrated with the St. Cabrini Nursing Home.

Sources: Nearmap: 3/5/20, 7/25/19, 3/28/19, 11/8/19, 4/23/18; Google Earth: 6/26/19, 5/23/18. Google Earth shows the day the survey was taken, but does not show the time, whereas Nearmap shows the day and time. The parking observations from Google Earth appear to be in line with the Nearmap aerials which were taken during the work day between 9:00 AM and 6:00 PM, and the Dobbs Ferry MNR parking lot is mostly full on the Google Earth observation days.

May 13, 2020

Exhibit 1: Cabrini of Westchester Parking Occupancies

Dobbs Ferry Board of Trustees
May 19, 2020
Page 4

Is Cabrini's parking demand typical?

The applicant's occupancy survey determined peak demands of 202 cars on Wednesday 6/19 and 205 cars on Thursday 6/20 and BFJ's highest aerial photo observation was 199 cars. This would yield an average peak demand of 202 cars. Is that a reasonable parking load for a nursing home with 306 beds, plus a daycare program that has 17 employees and a home care program with 14 employees? The Institute of Transportation Engineers (ITE) publishes the ITE Parking Generation Manual (5th Edition, 2019) that presents parking demand statistics for a large number of uses including nursing homes (land-use code 620). For nursing homes ITE presents peak occupancy data on a per bed basis that were collected at 10 nursing homes in the United States. The average of these peak ratios is 0.36 spaces per bed and the 85th percentile ratio (exceeded by 15% of the surveys) is 0.51 spaces per bed. ITE recommends the use of a fitted curve equation to determine the parking demand. Based on the 306 nursing beds the fitted curve equation yields a demand of 134 parking spaces, and the 85th percentile ratio yields 156 spaces. The ITE statistics also show that for nursing homes the parking demand tends to peak around 2 pm.

Adding the parking demand of the 31 employees of the day care and home care programs (at 0.8 spaces per employee to account for the fact that not all employees are on site at the same time and not all commute via single occupancy vehicle) brings us to 159 to 181 parked cars. Adding the 18 cars of visitors (these spaces were fully utilized during the early afternoon) brings us to 177 to 199 cars. Volunteers working at Cabrini and special service providers and contractors will easily bring the parking demand to the 202-space number.

Based on this assessment we can conclude that the parking demand of Cabrini seems to be in line with the empirical statistics presented by ITE for nursing homes.

Commute Modes of Cabrini Employees

The applicant undertook an employee survey to assess their current modes of transportation and to enquire about potential uses of public transportation and carpooling. Survey questionnaires were distributed to all 425 employees and 106 questionnaires were returned. The day shift employees returned 49 questionnaires, the evening shift employees returned 42 questionnaires and the night shift employees 15 questionnaires. The day shift employees indicated the following modes of commutation:

- Drove: 44 respondents (90%) 5 of the 44 respondents indicated being dropped off on occasion
- Public transportation: 4 respondents (8%)
- Carpool: 1 respondent (2%)

Dobbs Ferry Board of Trustees
May 19, 2020
Page 5

The respondents also commented on the reasons why it would be difficult or impossible to use public transportation or to carpool. These were the typical responses that are given in these surveys: need for car to drop off or pick up kids, to go to second job, not convenient service, too time consuming, etc.

For comparison the American Community Survey indicates that for the 3,734 people commuting into Dobbs Ferry (census tracts 104 and 105 – Cabrini is located near the boundary of the 2 tracts) we have the following modal split:

- Drive alone: 72%
- Carpool: 14% (includes drop offs)
- Bus: 4%
- Train: 2%
- Walk: 6%
- Other: 2%

Based on the above, it appears that Cabrini employees are not carpooling as much as the typical workers employed in the Dobbs Ferry area, but that they use public transportation to a greater extent (8% compared to 6%).

TDM Actions by Cabrini

A key question is whether Cabrini could implement a TDM program that could reduce their parking load (and traffic load) by 25 parking spaces, a 13% reduction. The purpose of the survey mentioned above was to explore the feasibility of implementing a TDM plan. The conclusion drawn by the applicant from that survey was that there are too many obstacles for a significant number of employees to shift their mode of transportation: work shift requirements, widely dispersed work force, travel obligations of employees before and after work, inconvenient public transportation, etc.

A parking/traffic reduction of 13% would generally require fairly significant TDM actions involving stick and carrot actions, i.e. making employees pay for parking and providing incentives to shift to other modes. Whereas it may not be feasible to charge a significant monthly fee for parking (say \$50), consideration should be given to a nominal fee (say \$10 per month or \$30 per quarter) charged to all employees on the day and evening shifts. Cabrini would then simultaneously provide a subsidy to those employees who do not get a parking permit to subsidize car-pooling or the monthly Westchester Bee or Metro North permit.

Other measures may be considered to alleviate some of the obstacles mentioned in the employee survey:

- Guaranteed Ride Home: this mitigates the concern of an employee who feels that he wants to have a car present in case of an emergency at home or in case the employee has to work late. This can also be addressed with a shared car on site.

Dobbs Ferry Board of Trustees
May 19, 2020
Page 6

- Variable Work Hours: allowing employees to adjust their working hours so that they can use public transportation more efficiently or carpool.
- Agreement with Local Child Care Center: Cabrini could attempt to work out an arrangement with a local child care center to obtain a discount for Cabrini employees. This would allow Cabrini employees with small children to commute by public transportation or carpool and drop off the child on the way to work.
- Shared Car on Site: such a car could satisfy the need for the guaranteed ride home and also the occasional need to run errands at lunch time, or to drive to off-site meetings.

To evaluate the potential effectiveness of the TDM actions we recommend to geocode the home addresses of all main-shift and evening-shift employees and quantify the number of employees living within a walking or bicycling distance to a Hudson Line train stop or Westchester Bee bus stop on the 1 and 6 routes. This will provide us with a clearer understanding of the feasibility of potential TDM actions.

Evaluation of Alternative Parking Locations

Based on a review of documentation provided by the applicant and a site visit conducted on May 4, 2020, the 25-space parking lot proposed in the southeast corner of the Cabrini property at 115 Broadway would not impede views of the Hudson River for pedestrians walking along Broadway or for property owners directly across the street on the east side of Broadway. The proposed location for the new parking sits at a sufficiently lower elevation than that of the right-of-way along Broadway and would not obstruct horizon line views to the west (see Photos 1 through 4). Views from private residences situated across Broadway would not be impeded either as the ground floors of these units appear to be approximately 10' to 12' feet higher in elevation than the sidewalk on Broadway (see Photo 5). Our site visit confirms that what is shown in the applicant's imagery appears to be fairly accurate.

The site visit, however, raised some concerns regarding the aesthetic value of the existing green on which the new parking is being proposed. By our calculations, the area measures approximately 9,700 square feet (about a quarter of an acre) of well-maintained lawn surrounded by mature trees (see Photo 2). From observation, it presents an attractive frontage by which to walk and is somewhat unique along this stretch of Broadway (see Photo 6). Aesthetically, the lawn area serves as a "green apron" for views westward towards the Hudson River (see Photo 4), and while the proposed parking is specified to be sunken down in elevation as discussed above, the parking will change views to the west. While the site plan indicates that most of the mature trees are to be preserved, forfeiting the lawn for parking may represent an overall aesthetic loss for this section of Broadway. These potential outcomes may be worthy of the Board's consideration.

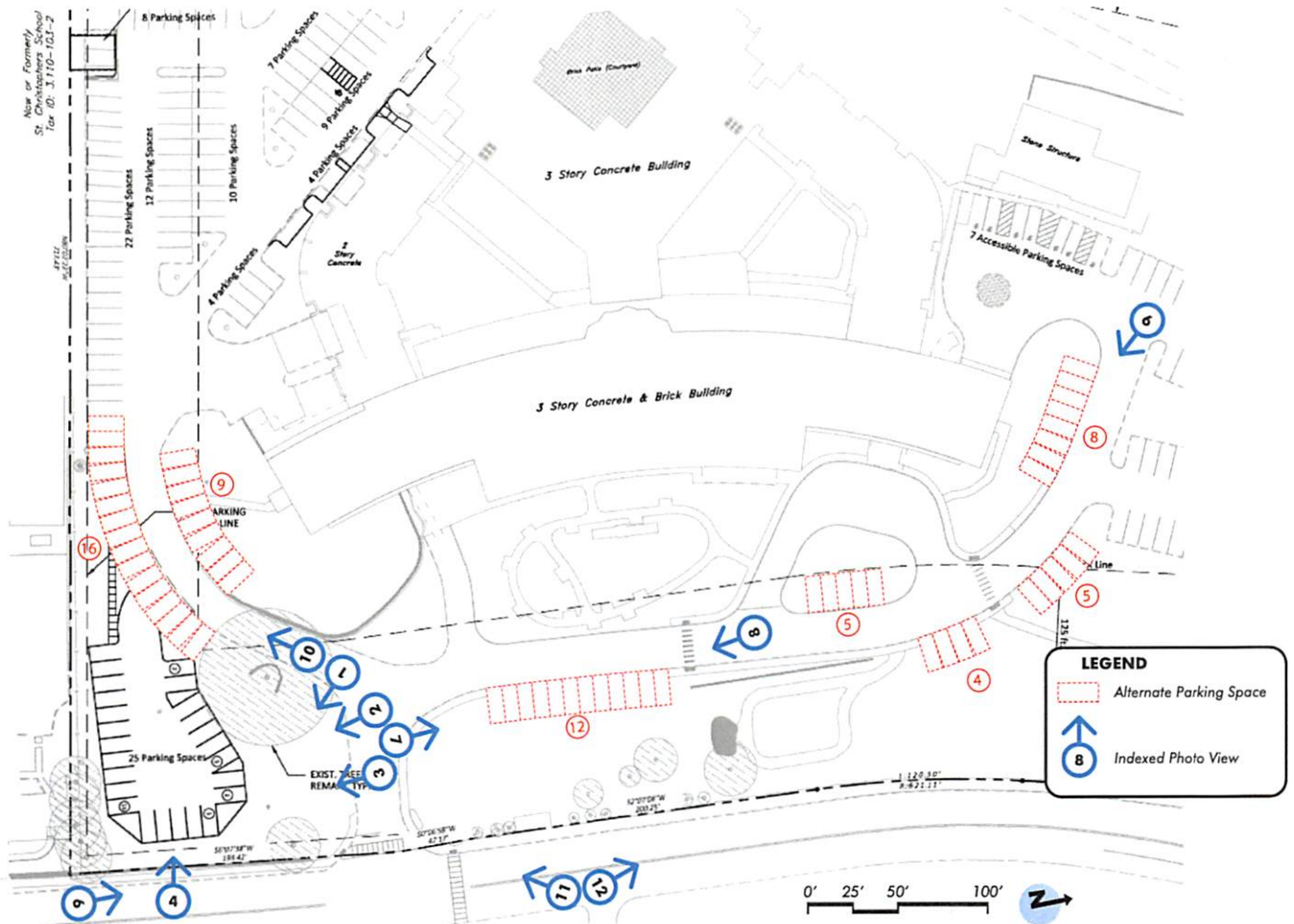
Dobbs Ferry Board of Trustees
May 19, 2020
Page 7

As shown on Exhibit 2, there are other locations on the Cabrini site where additional parking might be accommodated without utilizing the green along Broadway. For example, perpendicular parking could be dispersed among various locations along existing driveways, including those that provide access to the parking areas north and south of the main building (see Photos 8-10). Exhibit 2 shows potential locations for up to 59 perpendicular parking spaces from which it is envisioned that the applicant could select 25 spaces that best suit their need. In locations where perpendicular parking is placed, drives could be equipped with speed humps or other traffic calming devices, etc. to ensure slow speed and safety.

This approach to expanding parking capacity would preserve the green along Broadway while simultaneously reducing new impervious surface by more than half. The proposed parking lot would introduce approximately 9,500 square feet of new impervious cover to the site, while 25 perpendicular spaces (at 9' x 18') accessed from existing driveways would produce approximately 4,000 square feet of new impervious surface. Depending upon which locations are chosen, some existing walkways on site would need to be relocated behind the perpendicular parking to preserve existing pedestrian routes. The relocated pathways would now serve dual purpose as they would also facilitate safer pedestrian access to and from parked vehicles. From an aesthetic perspective, placing additional parking in locations where views beyond are already occupied with buildings and other parking would not only better preserve views of the Hudson River from the public right-of-way, but also help collectively maintain the verdant atmosphere along this stretch of Broadway (see Photos 11 and 12).

Effect of Corona Virus Pandemic

It is expected that the current pandemic reduces the parking demand of Cabrini by the fact that a number of employees work from home and visitors are currently not allowed. As an essential institution Cabrini probably does not experience the same reduction as typical corporate offices. Some essential employees who normally would use public transportation may now commute by private car due to the social distance requirements and the possibility that a car may have become available in the household. The question is whether transportation behavior and parking demand will revert back to the conditions observed prior to the pandemic. We believe that eventually these conditions will come back to "normal" but we don't know how fast that will happen. Cabrini is probably not an institution that can have a lot of employees working remotely.



Note: Refer to Appendix for Corresponding Locational Photos

Exhibit 2: Potential Alternate Parking Locations

Dobbs Ferry Board of Trustees
May 19, 2020
Page 9

Conclusions

Based on the review and analyses undertaken, we believe that the parking shortage is real and that some correction is warranted, either an increase in parking supply (+/- 25 spaces) or a reduction in parking demand. We recommend that Cabrini should geocode the home addresses of their employees on the main and evening shifts to determine the number of employees that could reasonably use public transportation and to check whether there are geographical concentrations of employees that could carpool.

If TDM actions are not deemed feasible and the Village allows an increase in parking supply on the Cabrini site, we recommend that alternate locations be chosen that do not destroy the aesthetic quality of the frontage of the southeast corner. We believe that perpendicular parking spaces can be provided safely at the locations indicated in Exhibit 2 that are cost effective, need significantly less pavement per added parking space and have minimal aesthetic impact.

We look forward to answering your questions at the next Trustees meeting.

Sincerely,

A handwritten signature in black ink, appearing to read "Georges".

Georges Jacquemart, P.E., PP, AICP
Principal

Appendix

Site Photos (Refer to Exhibit 2 for Locational Context)

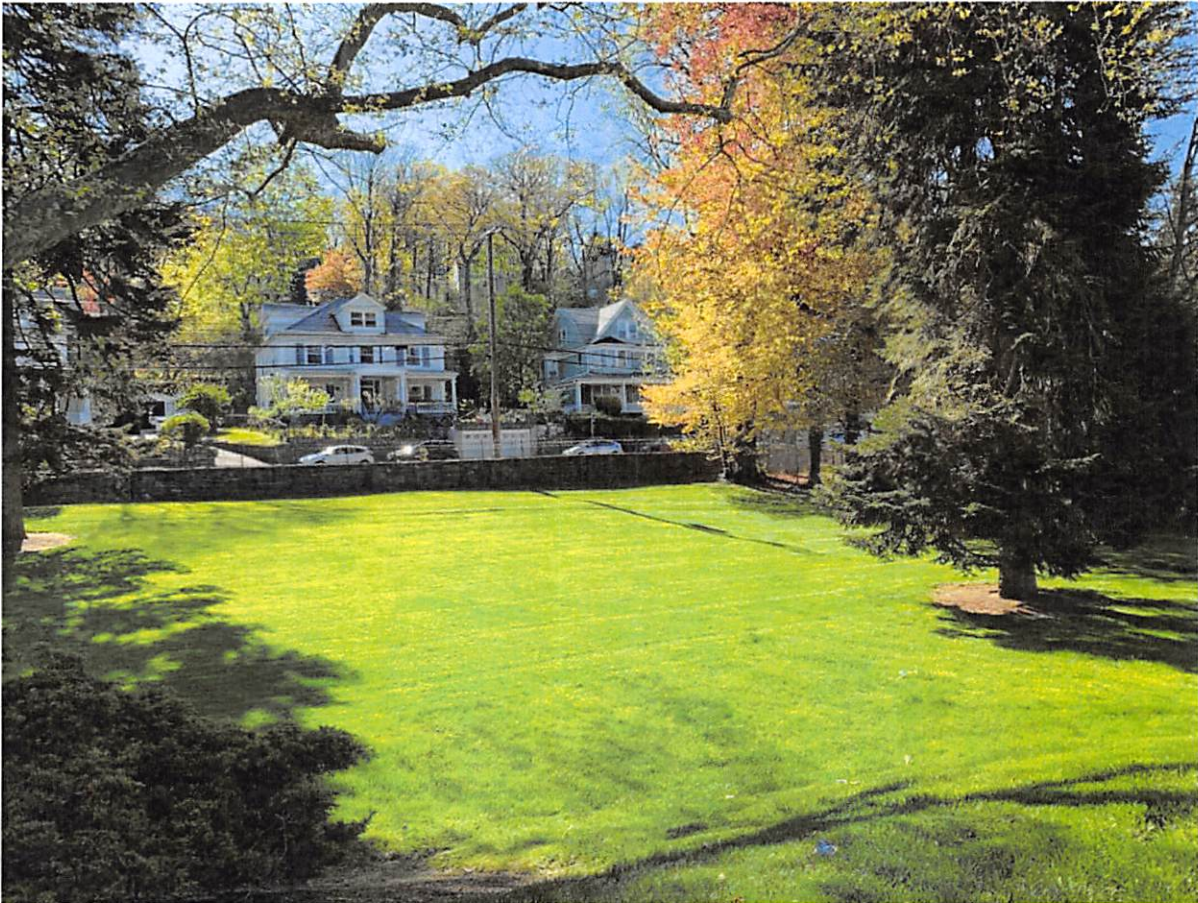


Photo 1: Proposed parking area (looking east) showing Broadway frontage

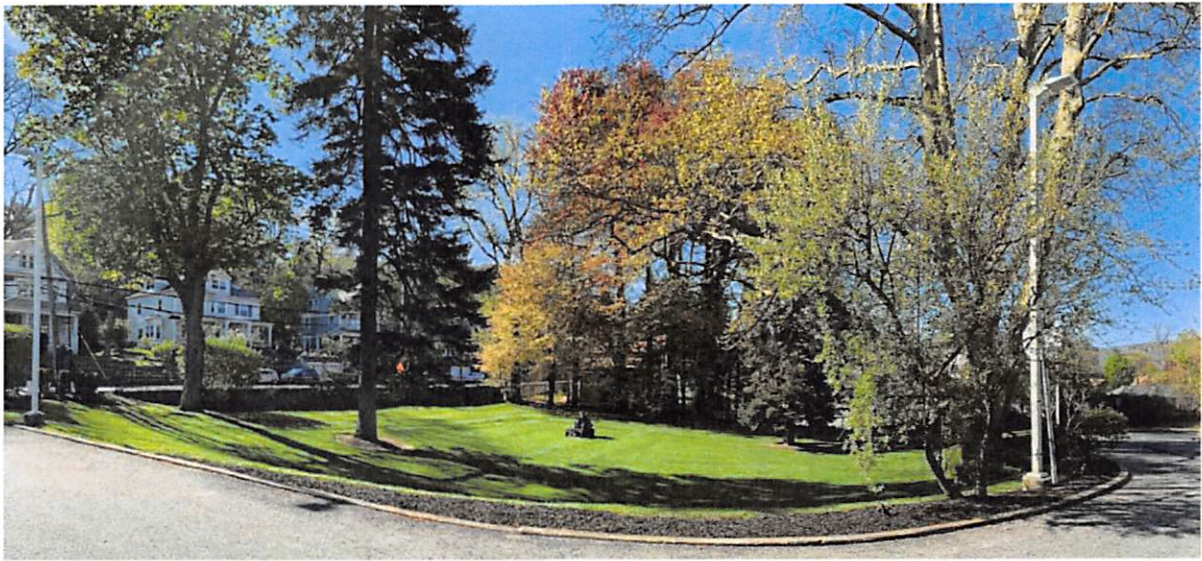


Photo 2: Panorama of existing green space (looking south)



Photo 3: View of existing green space (looking southeast)



Photo 4: View of existing green space (looking west)



Photo 5: View (looking southwest) of elevation of private residences on east side of Broadway

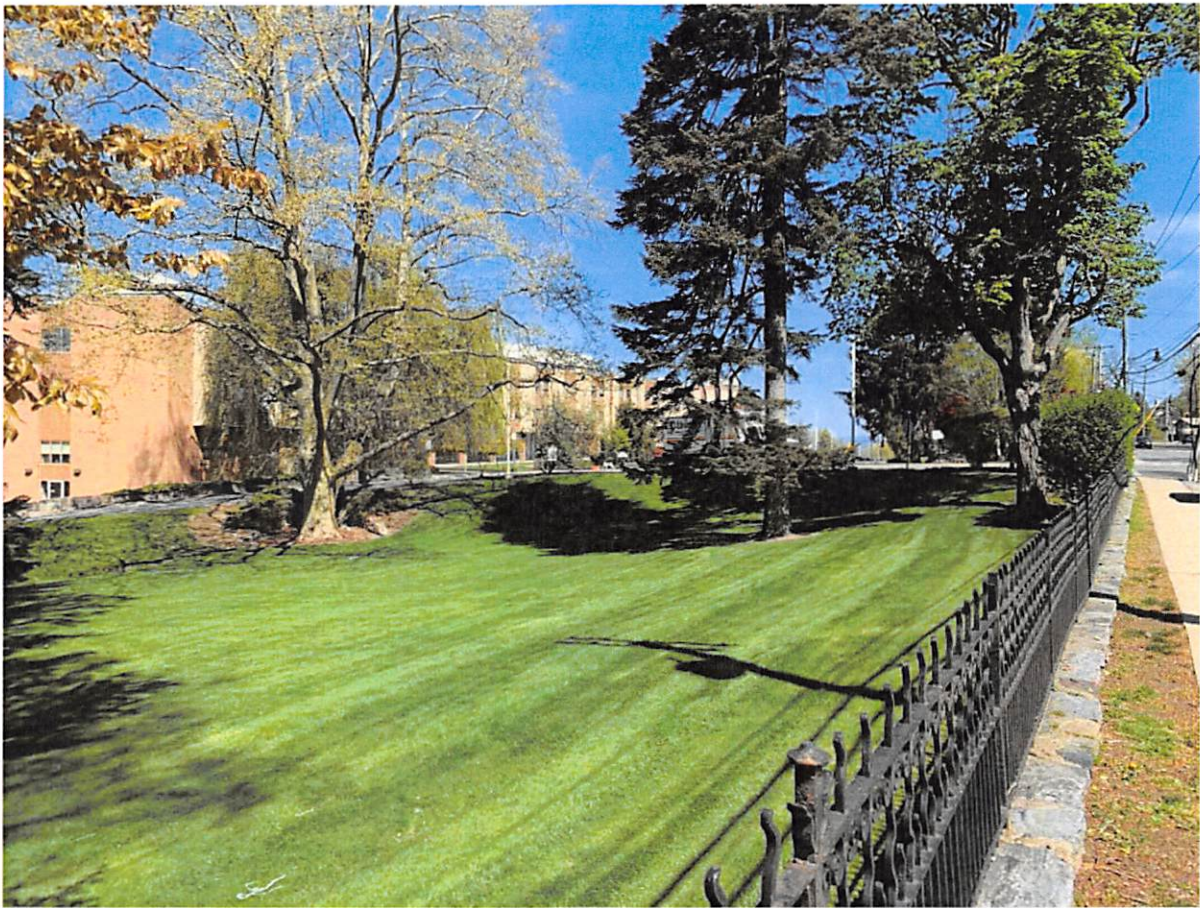


Photo 6: Pedestrians' perspective of existing green space from Broadway (looking north)



Photo 7: Potential alternative area along main driveway to accommodate perpendicular parking (walkway would have to be relocated behind parking stalls (view looking north)



Photo 8: Potential alternative area along main driveway to accommodate perpendicular parking (walkway to be relocated behind parking stalls) (view looking southeast)



Photo 9: Potential alternative area along driveway north of main building to accommodate perpendicular parking (walkway to be relocated behind parking stalls) (view looking east)



Photo 10: Potential alternative area along south driveway to accommodate perpendicular parking (view looking southwest)

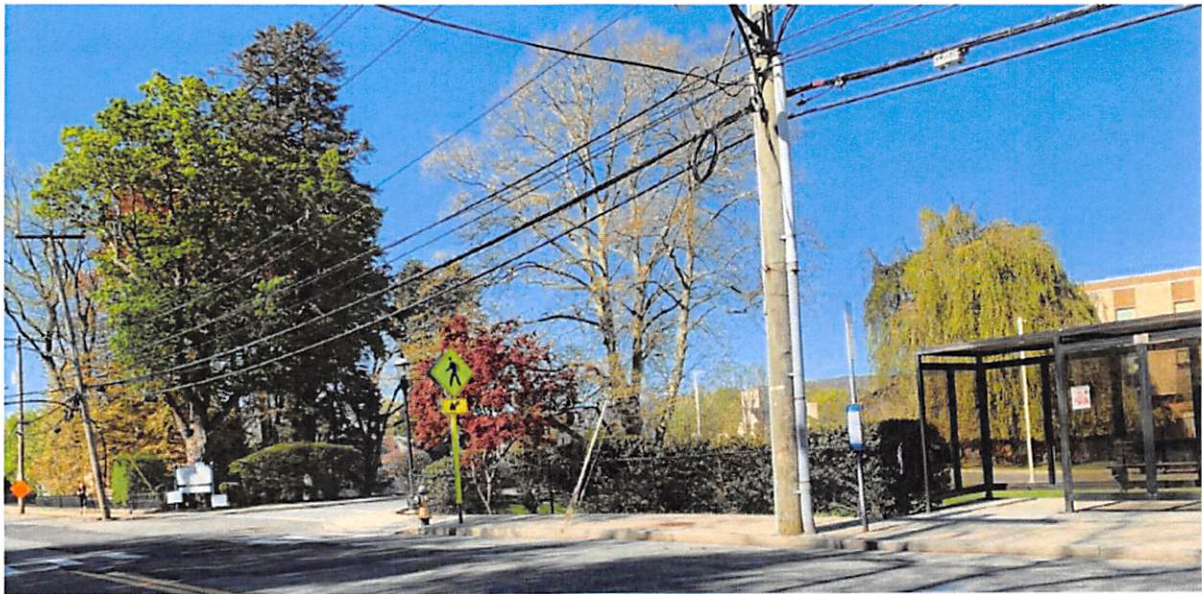


Photo 11: Broadway frontage (Cabrini of Westchester) looking southwest

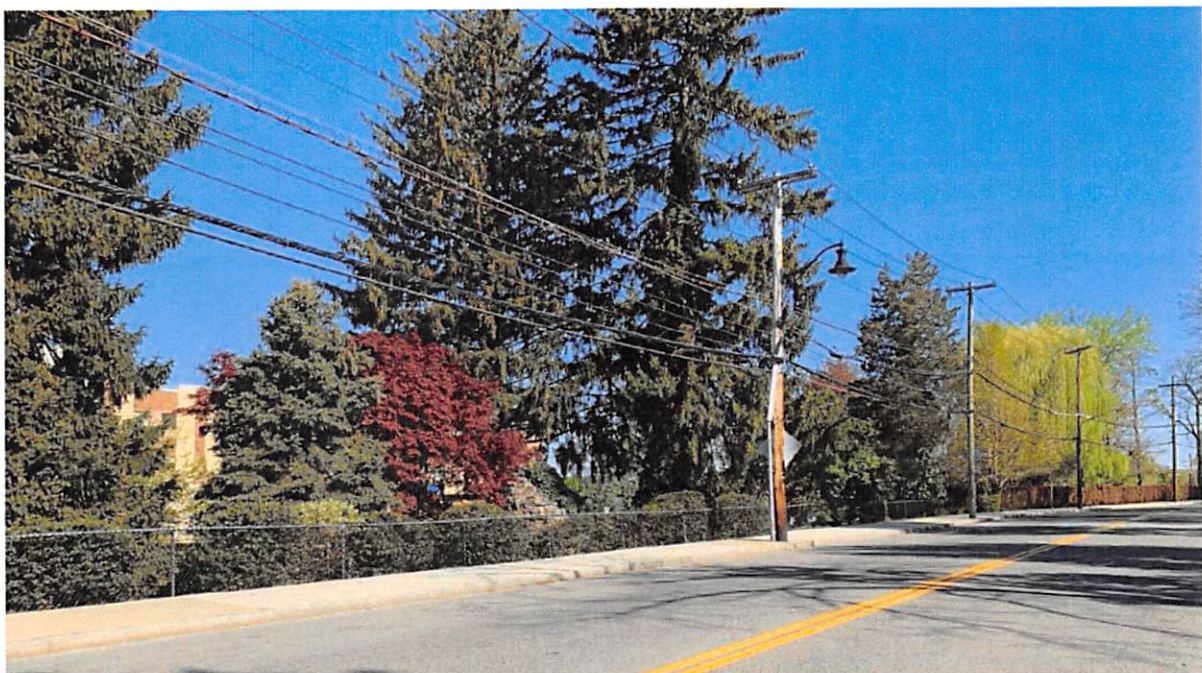


Photo 12: Broadway frontage (Cabrini of Westchester) looking northwest