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Memo To: Ms. Cheryl Chrusz, Planning Board Secretary  
Montgomery Township Planning Board  
2261 Van Horne Road  
Route 206  
Belle Mead, NJ 08502

Date: January 31, 2023  
55175 01

From: Rakesh R. Darji, PE, PP, CME  
Environmental Resolutions, Inc.  
Planning Board Engineer

RE: BPS Development Company, LLC  
**Preliminary and Final Major Site Plan with Variances**  
**Application #PB-07-22**  
**Engineering Review**  
Block 28003, Lot 211  
Hartwick Drive and Village Drive, Skillman  
Township of Montgomery, Somerset County

Our office has reviewed the plans and documents submitted by the applicant for a Preliminary and Final Site Plan with Variances application. The subject tract consists of Block 28003, Lot 211, comprising approximately 4.4 acres. The applicant proposes to construct a 65,730 SF Assisted Living and Memory Care Facility with a building footprint of 35,404 SF containing 80 units. Approximately 13.6% of the building area is dedicated to common facilities, services and activities for residents. The site is currently undeveloped but contains a stormwater management facility, inlets and piping.

In addition to the Memory Care facility, site improvements include parking, sidewalks, resident courtyards, landscaping, lighting, utilities and stormwater facilities, which includes a small-scale bioretention basin.

The site is located on the northeast corner of the Hartwick Drive and Village Drive intersection. The plans propose two (2) full-movement driveways onto the site from Hartwick Drive. A grass paver emergency access drive is proposed along Village Drive.

The zoning district is Age Restricted Housing (AHR).

Numerous easements are located on the property. These include easements for utility, stormwater/drainage and ROW. A 30 FT right-of-way dedication is proposed along the frontage with Village Drive. In addition, a 60 FT wide township easement for the future extension of Village Drive (also known as Research Drive). A portion of the existing stormwater piping will be relocated, requiring a vacation of the existing easement and providing a new 20 FT drainage easement. A 10 FT wide drainage easement is located along Hartwick Drive.

The following information, submitted by the applicant in support of this application, has been reviewed by our office:

1. Montgomery Township Land Development Application, dated December 2022.
2. Checklist, Final Major Subdivision Plats and Final Major Site Plan, dated December 2022.
3. ALTA/NSPS Land Title Survey, prepared by Dynamic Survey, LLC, dated November 2, 2022.
4. Preliminary and Final Major Subdivision and Site Plan, prepared by Dynamic Engineering, dated December 7, 2022 consisting of the following:
  - a. Cover Sheet, sheet 1 of 18.
  - b. Aerial Map, 2 of 18.
  - c. Demolition Plan and Steep Slopes Analysis, sheet 3 of 18.
  - d. Site Plan, sheet 4 of 18.
  - e. Grading Plan, sheet 5 of 18.
  - f. Drainage Plan, sheet 6 of 18.
  - g. Utility Plan, sheet 7 of 18.
  - h. Utility Profiles, sheet 8 of 18.
  - i. Landscape Plan, sheet 9 of 18.
  - j. Lighting Plan, sheet 10 of 18.
  - k. Soil Erosion and Sediment Control Plan, sheet 11 of 18.
  - l. Soil Management and Compaction Plan, sheet 12 of 18.
  - m. Construction Details, sheets 13 through 16 of 18.
  - n. Vehicle Circulation Plan, SU-30, sheet 17 of 18.
  - o. Vehicle Circulation Plan, Fire Truck sheet 18 of 18.
5. Stormwater Management, Groundwater Recharge and Water Quality Analysis, prepared by Dynamic Engineering, dated December 2022.
6. Stormwater Management Operation and Maintenance Manual, prepared by Dynamic Engineering, dated December 2022.
7. Report of Preliminary Geotechnical and Stormwater Basin Area Investigation, prepared by Dynamic Earth, dated November 4, 2022.
8. Traffic and Parking Assessment, prepared by Dynamic Traffic, LLC, dated December 9, 2022.
9. Environmental Impact Statement, prepared by Dynamic Engineering, dated December 2022.
10. Water and Sanitary Sewer Engineer's Report, prepared by Dynamic Engineering, dated December 2022.
11. Architectural Plans, for Assisted Living and Memory Care Facility, prepared by Studio Architects, dated December 13, 2022, consisting of 3 sheets.
12. Utility Will-Serve Letters – PSEG Gas and Electric, dated September 2022

#### **General Information**

Applicant: BPS Development Company, LLC  
643 Starlight Drive  
Atlanta, GA 30342  
[cwade@braemarpartners.com](mailto:cwade@braemarpartners.com)

Owner: Sharbell Plainsboro, Inc.  
1 Union Street, Suite 208  
Robbinsville, NJ 08691

Engineer: Jeffrey Haberman, PE  
Dynamic Engineering Consultants, PC  
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Lake Como, NJ 07719  
[jhaberman@dynamiccec.com](mailto:jhaberman@dynamiccec.com)

Architect: Studio Architects  
1000 Marietta Street NW, Suite 244  
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[cvankley@studioarchitects.us](mailto:cvankley@studioarchitects.us)

Attorney: Frank Petrino, Esq.  
Princeton Pike Corporate Center, Suite 203  
2000 Lenox Drive  
Lawrence, NJ

### **Zoning**

1. This parcel is within the Age Restricted Housing (ARH) zoning district.
2. An assisted living facility is permitted provided that the gross acreage devoted to the assisted living facility within the mixed-use, age restricted housing development shall not exceed 5-1/2 acres of land with a maximum of 120 beds.
3. Area, yard, and coverage requirements are detailed in §16-4.13.d2.

	<b>Required</b>	<b>Proposed</b>	
Maximum Lot Area	5.5 Acres	4.43 Acres	Conforms
Minimum Lot Width	-	566.2 FT	
Minimum Lot Frontage	-	566.2 FT	
Minimum Lot Depth	-	414.8 FT	
<b>Setbacks</b>			
Min Front Yard Setback (Hartwick)	50 FT	51 FT	Conforms
Min Front Yard Setback (Village)	50 FT	90.1 FT	Conforms
Min Side Yard Setback	50 FT	100 FT	Conforms
Min Rear Yard Setback	50 FT	124.8 FT	Conforms
<b>Parking Requirements</b>			
Min Parking Setback (Hartwick)	25 FT	12.5 FT	Variance
Min Parking Setback (Village)	25 FT	112.3 FT	Conforms
Min Parking Setback (Side)	25 FT	60.4 FT	Variance
Min Parking Setback (Rear)	25 FT	N/A	
Parking Space: 1/3 space/unit (80 UN)	27 spaces	42 spaces	Conforms
Electric Vehicle: 15% of # of spaces	4 spaces	1 space	Waiver
Drive Aisle Width (perpendicular space)	28 FT	24 FT	Waiver
<b>Coverage and Height</b>			
Maximum Building Height	35 FT/2.5 stories	35 FT/2. stories	Conforms
Maximum Lot Cover	50%	35.7%	Conforms

**Variances**

1. Per §16-4.13d2(e), each unit within the assisted living facility shall contain at least 325 SF of net habitable floor area. This information has not been provided. Should the habitable area of the units be less than 325 SF, a variance will be required.
2. Per §16-4.13d2(b), no parking area, loading area, driveway or other structure (except for approved accessways and fencing) shall be permitted within the first 25 FT adjacent to any lot line or within 75 feet adjacent to any residential lot line.
  - a. Parking is proposed 12.5 FT from the lot line along Hartwick where 25 FT is permitted. A variance will be required.
  - b. A retaining wall structure is proposed within 25 FT of the lot line with Village Drive. This dimension should be provided. A variance will be required.
3. Per §16-4.13i1, any loading dock space shall be at least 15 FT in width by 40 FT in length. The applicant is proposing a loading area of 15 FT x 35 FT. A variance will be required.

**Waivers**

4. The ordinance requires that parking spaces shall be 9FT x 20FT, which can be reduced to 18 FT provided a 2-FT overhang is available. The applicant is proposing a 5-FT wide sidewalk along the parking spaces. Five-foot width is insufficient to allow for a 2 FT overhang. It is recommended that the sidewalk width be increased to a minimum of 6 FT along the front of the building to provide a 4-FT pedestrian travel way and 2 FT vertical overhang.
5. Per §16-5.3, no fence or wall shall be erected over 4 feet in height in side, rear and front yard areas. The applicant is proposing an 8 FT high board-on-board fence along the western side of the building. A waiver will be required.

**General**

6. A chart should be added to the plan set to include the following:
  - a. Breakdown of unit type, number of memory care units and number of assisted living units.
  - b. Breakdown of bedroom count (1- and 2-bedroom units).
  - c. Size of each unit type/bedroom, include total area and habitable area in SF.
7. Per the New Jersey Statute relating to Electric Vehicle Charging Stations, any mixed-use development or a development with five or more units of dwelling space shall provide make-ready EV parking spaces for at least 15% of the required off-street parking spaces and install 1/3 of the 15%. The next 1/3 shall be installed within 3 years of the certificate of occupancy and the final 1/3 should be installed within six (6) years of the certificate of occupancy. Finally, five percent of these spaces shall be accessible. The application requires 4 parking spaces based upon the required 27 spaces. The applicant is proposing one EV space.
8. Per the Electric Vehicle Charging Station statute, adequate EVCS protection shall be provided should the unit be installed closer than 24 FT to the curb line. It is recommended that concrete filled steel bollards, 3 FT to 4 FT in height, be provided to protect the charging station from accidental impact and prevent damage from equipment used for snow removal.
9. It is unclear if there is sufficient back up space for a vehicle exiting the Electric Vehicle Charging station space. In addition, this space plus the next three spaces may conflict with vehicles entering the site.
10. The applicant should discuss:
  - a. Anticipated timing of deliveries
  - b. Anticipated timing of trash pickup
  - c. Anticipated number of employees per shift

11. Given the volume and type of traffic expected during construction, we recommend that the full width of Hartwick Drive be milled and repaved along the property frontage.
12. Clarify the size of the building. Per the site plan, the building is 34,404 SF without reference to a building footprint or if there is a 2<sup>nd</sup> floor. A note should be added to show the GFA of the proposed building.
13. There is a utility easement running along the Hartwick Drive frontage. The plans are unclear as to the purpose of the easement in the pre- and post-developed condition. In addition, there is a notation to the north of an easement to be extinguished and a proposed ROW to be vacated. The applicant should provide testimony regarding what will be remaining. The site plan should clearly identify the various dashed lines within Village Drive.
14. The loading area should be labeled. In addition, it is recommended that a crosswalk be provided across the loading area for the safety of the pedestrians and to identify it as a potential for pedestrians for any delivery vehicles.
15. The clearance of the canopy at the entrance should be provided to demonstrate accessibility for emergency vehicles.
16. The building entrance:
  - a. If one-way circulation is proposed at the drop-off, it is recommended that striping and/or signage be provided.
  - b. It is recommended that flush curbing be provided at the location of the canopy. This will allow accessible loading and unloading at the drop-off.
17. It is recommended that a sidewalk be provided along Village Drive, from the intersection with Hartwick Drive to the property line.
18. All four corners of the Hartwick and Village Drive intersection should be detailed. ADA ramps and crosswalks should be provided.
19. Site curbing should be labeled.
20. The details show that the concrete pad for the trash enclosure is 6" thick, reinforced concrete. A different hatch should be provided to differentiate between the concrete sidewalk and this pad.
21. The proposed swale material should be identified. The detail calls out a grass swale. The hatching on the site plan matches that of the grass paver access drive. This should be clarified.
22. It is recommended that a no parking sign be provided at the striped space next to the trash enclosure.
23. The applicant should discuss if there is a gate and/or no parking sign proposed at the emergency access drive. Per the traffic and parking assessment report, parking is permitted on both sides of Village Drive. The applicant should show the parking spaces, if lined, and discuss if any of these spaces will be impacted by the proposed driveway access to the emergency access road.
24. This office defers to the Fire Marshal for further comments regarding any fire lanes, signage, etc. relating to site safety.

#### **Grading and Drainage**

25. Drainage arrows should be provided to demonstrate direction of flow.

26. Additional spot grades should be provided for all sidewalks to demonstrate that both cross slope and running slope requirements have been met.
27. The extent of the flushed curb in the vicinity of the ADA spaces should be provided.
28. The sidewalk at the northeast corner of the building should be reviewed. Additional spot grades should be provided to demonstrate that the proposed sidewalk can be constructed with the proper running and cross slopes. It is noted that the grade at the sidewalk drops 4 FT to 5 FT along the sidewalk prior to reaching the fence location.
29. A “match existing” notation should be provided at the new swale connection to the existing swale.
30. None of the provided test pit locations are located within the bottom of the proposed basin. An additional test pit should be performed to verify consistency with testing used to design the basin.
31. It is noted that the inlet proposed to be converted to a manhole appears to be set above the height of the nearby sidewalk. It is recommended that this be located at grade to avoid any tripping hazards.
32. TW/BW elevations should be provided at both ends of the proposed retaining wall to the rear of the building.
33. Cleanouts should be provided at all changes of direction and intersection for the proposed roof drains. An invert for each cleanout should be provided.
34. The plans should identify where the roof drain pipe sizes change. It is noted that these pipes are 6”, 8” and 12” in diameter.
35. There is a note on an existing 15” HDPE pipe that states this is temporary. It appears that the applicant proposes to retain this pipe. Analysis should be provided to verify pipe sizing and suitability to remain in place.
36. The location of any proposed concrete encasement should be depicted and a detail provided.
37. The FES should be depicted on the profile of “OCS to FES.”
38. The sanitary sewer piping should be provided on the profile plans.
39. We defer to the Township Utility Department for further comment regarding the utilities.

#### **Stormwater Management**

40. The applicant should provide testimony regarding the existing on-site basin. This testimony should discuss the following:
  - a. The condition of the basin and any maintenance or repair that may be required.
  - b. The condition of the existing concrete walls
  - c. The condition of the existing pipes
  - d. The condition of the existing structures (headwalls, inlets, etc.)
  - e. It is recommended that the applicant televise the existing stormwater pipe to determine if there are any locations that may require repair or replacement prior to final surface work (paving, sidewalks, etc.).
  - f. If the basin was designed to safely accept the conveyance from the proposed improvements without any adverse impact downstream.
  - g. There is a proposed easement (existing stormwater easement which has been relocated), state who the easement is dedicated to.

- h. The ownership / responsible party for the maintenance and upkeep of the existing basin.
41. The applicant is proposing to relocate an existing grass swale. In accordance with Chapter 9.3 of the NJ BMP manual, the following are the requirements for the grass swale:
- a. A maintenance plan must be provided and it should be reflected in a deed notice recorded in the County office.
  - b. The applicant should provide testimony regarding any changes in flow expected due to the proposed site improvements and the relocated swale.
  - c. No calculations for the grass swale have been provided in the Stormwater Report for the project.
40. The project proposes to disturb more than 0.5 acres of land, creates greater than an additional 5,000 SF of regulated impervious surface, and creates greater than an additional 5,000 SF of regulated motor vehicle surface and thus is classified as a "major development" for the purposes of stormwater management and must comply with the requirements of NJAC 7:8 and the Township of Montgomery Ordinance §16-5.2. The project must, therefore, meet the following requirements:
- a. Address the rate and volume of runoff from the project site. This may be done in one of three ways as outlined in NJAC 7:8:
    - Reduce the peak rate of runoff from the project area by 50%, 25%, and 20% for the 2-year, 10-year, and 100-year storms, respectively; or
    - Demonstrate that the rate of runoff for the project is not increased from the pre-developed condition at any point along the post-developed condition hydrograph; or
    - Demonstrate that the peak rate of runoff is not increased and that the increase in volume and variation in timing will not have an adverse downstream impact.
  - *The applicant proposes to attenuate the majority of the runoff such that the peak rates of runoff from the area of disturbance are reduced in accordance with the first method outlined above by proposing the bioretention basin. This basin will collect run-off from the site and discharge to the existing basin at a rate which reduces the stormwater to the existing basin from the pre-disturbance conditions.*
  - b. Reduce the Total Suspended Solids (TSS) loading in stormwater by 80% for new impervious.
    - *The proposed bioretention basin is designed to store and infiltrate the entire water quality storm, thus meeting the requirements of §16-6.5, Table 1, which state that the bioretention basins are approved as having an 80% total TSS removal rate.*
    - *There are no TSS removal rates discussed for the existing basin.*
  - c. Demonstrate that the amount of groundwater recharge in the post-developed condition is equal to or greater than the pre-developed.
    - *The applicant has provided the Groundwater Recharge spreadsheet to show that no recharge occurs in the existing condition, thus the proposed development satisfies the recharge requirements.*
  - d. Green Infrastructure.
    - *The applicant meets requirements for green infrastructure by proposing the bioretention basin.*



41. The lot shall be “deed restricted” to require the perpetual maintenance of the stormwater management system in accordance with the approved Stormwater Management Maintenance Plan. The restriction shall reference the maintenance manual by title, preparer, and most recent revision date. Further, the restriction shall allow that, if the responsible party fails to maintain the system, the Township shall have the right (but not the obligation) to enter upon the property to perform the requisite maintenance at the responsible party's expense. A note indicating this should be placed on the plan. Further information on the deed records and dedications are found at §16-5.2u.
42. All basins should have a means of accessing the basin for maintenance. Based on the location of the gate, it appears that the maintenance access is near the proposed EV charging station. It is recommended that the EV station be relocated to allow parking for basin maintenance and that a depressed curb be provided to allow equipment to cross from the parking lot to the gated area without damaging the curb.
43. The applicant should provide, in tabular form, the existing pervious and impervious surfaces and then proposed pervious, impervious and motor vehicle impervious surface.
44. The stormwater report (page 3, Section IV) states that the existing basin has been designed to control the quantity of runoff in existing conditions. The applicant should discuss how the additional runoff, from the proposed bioretention basin, will affect the downstream drainage.\
45. The proposed condition routings should be reviewed and revised as necessary. It appears that the routings calculate two (2) basins independently and “link” them. However, the design appears to route Basin A through the existing basin.
46. The applicant has provided an operations and maintenance report. The applicant should review the requirements of the Township Stormwater Ordinance and the NJ DEP BMP manual to ensure that all requirements have been met.
  - a. It is noted that the existing basin as well as the re-aligned swale are not included in the Operations and Maintenance manual. The maintenance for the existing improvements should be discussed and responsibility noted.
  - b. The design information table states the Water Quality Storm elevation is 116.50 where the plans and stormwater report show this elevation is 116.43.
  - c. Inspection guidelines for rip rap should be provided.
  - d. It is recommended that the maintenance plan for the small-scale bioretention basin in the BMP manual be provided for guidance in the Operations and Maintenance manual. This should include all maintenance and care of the vegetation.
  - e. Maintenance of the grass-paver access roadway should be included.
  - f. The soil bed detail should be provided in this plan.

### **Details**

46. A detail for the concrete driveway apron should be provided.
47. A detail for the crosswalk at the driveway should be provided.
48. Paint material for the pavement striping should be provided. It is recommended that long-life epoxy or thermoplastic be provided.
49. The detail for the parking space striping should be reviewed. It appears that the dimensions for length and width have been swapped.
50. Per the Report of Preliminary Geotechnical & Stormwater Basin Area Investigation, the recommended rigid pavement section should be 5” of 4,000 psi air-entrained concrete and 6” of DGA. The detail (on both Sheet 13 and 15) for the concrete compactor/dumpster pad should be updated to meet these requirements.



51. A detail for the gates for the 8 FT board on board fence and the post and rail fence should be provided.
52. There are 2 callouts on the Bioretention basin detail that should be reviewed. At the top of the Outlet Structure, there appears to be a dimension that is missing; then the Top of Basin/Grade callout is pointing to nothing on the detail.

### **Approvals and Permits**

47. Following is the list of outside agency approvals required for this application:
  - a. Montgomery Township Planning Board
  - b. Montgomery Township Engineering Department
  - c. Montgomery Township Shade Tree Commission
  - d. Somerset County Planning Board, *application submitted December 2022.*
  - e. Somerset Union County Conservation District, *application submitted December 2022.*
  - f. NJDEP, TWA approval
    - i. NJ DEP, LOI (Presence Absence), *application submitted December 2022.*
  - g. NJ American Water
  - h. Delaware and Raritan Canal Commission, *application submitted December 2022.*

### **Administrative**

46. The applicant shall pay all taxes, fees and required escrow due and owing.
47. This office reserves the opportunity to make further comment if additional information is presented.
48. All future resubmissions of the plans shall clearly indicate a revision date and be accompanied by a point-by-point response letter to the comments of the Board's professional staff.

Should you or the applicant have any questions, please do not hesitate to contact this office.

RRD/mbs

Cc: BPS Development Company, LLC, applicant ([cwade@braemarpartners.com](mailto:cwade@braemarpartners.com))  
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