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May 12, 2021

Ms. Mary Jo Wood, Planning Board Clerk
Township of Mahwah
475 Corporate Drive
Mahwah, NJ 07430

Re: RSIS Compliance Statement
Fyke Brook Estates LLC
1 Fyke Road
Block 21 – Lots 21, 22, 23
Mahwah, NJ

Dear Ms. Wood:

Fyke Brook Estates is a residential development is designed in accordance with the Residential Site Improvement Standards (RSIS) and is compliant as follows:

Proposed Development

- 40 unit townhouse project.
- Bedroom Distribution
 - 3 bedroom - 34 units
 - 2 bedroom - 5 units
 - 1 bedroom - 1 unit

Street Hierarchy

From Table 4.1 - Townhouses generate a peak rate of traffic of 5.9 trips per day.

$$ADT = 40 \times 5.9 = 236 \text{ trips/day}$$

From Table 4.2 – Street Type – *Multifamily Cul-de-sac & Residential Access*

Cartway Width

Table 4.3 – Footnote ‘m’: Cartway widths of multifamily cul-de-sac stems should conform to applicable residential access street type.

Development proposes perpendicular parking and parallel parking spaces. Table 4.3 Footnote ‘b’ – parking lane refers to parallel parking, except in the case of residential access street with non-parallel parking, which perpendicular parking.

From Table 4.3 – Residential Access, b. Nonparallel (all intensities)
Traveled way = 24' Parking lane = 18' one side & 36' two sided (perpendicular spaces)
Proposed cartway = 24' with Parking = 18' & 36'

From Table 4.3 – Residential Access, a. Parallel Parking low intensity
Traveled way = 21' Parking lane = 7' one side cartway width = 28'
Proposed cartway = 28'

Curbing

Table 4.3 – curbing is required for non-parallel parking.

5:21-4.3 (a)(b)(c) – curbing shall be used for drainage purposes, protection of pavement edge, and stormwater management system design.

Curbing provided through development for drainage purposes, protection of pavement edge, and stormwater management system design.

Sidewalks

5:21-4.5. No sidewalks are required. The project does not meet the requirements to install the sidewalks. No sidewalks on adjoining streets.

Street Grade & Design

Maximum road slope for the interior roads is 5% and 5.8% to meet the existing Fyke Road.

The interior circulation will accommodate all types of vehicles, tractor trailers & fire trucks. Design meets AASHTO standards.

Pavement Design

5:21-4.19 – Pavement section shall be designed for Residential Access, poor condition. [Footnote 5. - All subgrades shall be considered "poor" unless the applicant proves otherwise through CBR testing or field evaluation of soil classification.]

Pavement Section is designed as follows:

- 1.5" surface course***
- 4.5" stabilized base course***
- 6" dense graded aggregate base course***

Parking

The parking required based on the bedroom distribution

3 bedroom = 2.4 spaces/bedroom x 34 units = 81.6 spaces

2 bedroom = 2.3 spaces/bedroom x 5 units = 11.5 spaces

1 bedroom = 1.8 spaces/bedroom x 1 units = 1.8 spaces

Total required = 95 spaces required

- All market rate units have a 1-car garage and 2 driveway parking spaces.
- Minimum driveway length 21' for Market rate units & 20' for affordable units.
- Each affordable unit has 2 driveway spaces. We chose to only count it as one in case the driveway must be an ADA space for the unit.
- 24 striped parking spaces (23 + 1 ADA) for the affordable units and visitors.
- Visitor parking 50% of the # of units = 20 which is included in the parking required number – Visitor parking must be included in common parking areas. **24 striped.**

Total parking provided = 123 spaces.

(20) 9'x18'

(1) 16' ADA space

(3) 8' x 23' parallel spaces. 23' is the RSIS length for on-street parking

Existing Fyke Road

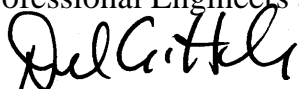
Existing Fyke Road pavement is 20' wide. Fyke Road was designed as a Rural street. A rural street can carry an average Daily Traffic volume of 500 trips per day.

The existing street has 2 houses or 20 trips/day.

The proposed development is 40 units @ 5.9 trips/day = 236 trip total on Fyke Road would be 256 trips (236 + 20). The current street meets the RSIS standards to carry the proposed development traffic. 256 trips is 51% of 500 trips Existing Fyke Road (rural street) can accommodate the proposed traffic.

Very truly yours,

SCHWANWEDE/HALS ENGINEERING
Professional Engineers and Land Surveyors



David A. Hals, P.E., L.S., P.P. & C.M.E.