

September 30, 2020

Exhibit:  
**B-3**

Beth Magnani  
Planning Board Secretary  
Borough of Sayreville  
167 Main Street  
Sayreville, NJ 08872

**Re: Response to Comments  
Borough of Sayreville  
Camelot at Ernston Road LLC Site Plan  
Block 347.01, Lot 3.01; Block 366, Lot 1  
Langan Project No.: 130101101**

Dear Planning Board Members:

We have received the review comments prepared by CME Associates dated November 19, 2019. In response to the traffic impact study questions and comments, we offer the following additional information.

A. SITE GRADING & GENERAL COMMENTS

- A comprehensive and itemized N.J. Residential Site Improvement Standards (RSIS) compliance report should be submitted for the project. The report should include all site improvement items that are applicable to the project, including roadway geometry, pavement sections, parking, water. Sanitary sewer, stormwater management, etc.*

**The proposed project consists of the development of six (6) multifamily buildings on a single lot supported by a surface parking lot and individual dwelling unit parking garages. One driveway from Main Street will be provided. In accordance with the Residential Site Improvement Standards published by the Department of Community Affairs, a Parking Lot is defined as "means a ground-level generally open area that provides storage for motor vehicles that may provide access to dwelling units and which has aisles that carry traffic with destination or origin in the lot itself." An Aisle is defined as "means the traveled way by which cars enter and depart parking spaces." Lastly a Parking Space is defined as "means a storage area provided for the parking of a motor vehicle". Based upon the RSIS definitions, it is the applicant's determination that the site which is a single lot under single ownership and designed with parking spaces that are arranged as a parking lot served by aisles and in some instances provide direct access to dwelling unit garages, is a parking lot.**

**In accordance with RSIS, the following standards apply to the design of parking lots supporting a residential development;**

(a) Off-street parking lots shall be oriented to, and within a reasonable walking distance of the buildings they are designed to serve. **Project Complies, the parking lot is surrounded by the buildings it serves. Further, parking spaces have been distributed in proximity to the various buildings in a logical manner.**

(b) Access to parking lots shall be designed so as not to induce queues on travel ways, and to provide adequate pedestrian circulation and safety. There shall be adequate provision for ingress to and egress from all parking spaces to ensure ease of mobility, ample clearance, and safety of vehicles and pedestrians. **Project complies, the parking aisles are logically arranged, provide for two way circulation and are supported by a network of sidewalks to accommodate pedestrian movement separate from the vehicular movement throughout the lot.**

(c) The width of all aisles providing direct access to individual parking stalls shall be in accordance with the requirements specified in Table 4.5. **Project complies, the aisles which serve access to perpendicular parking stalls are all 24 feet wide and all parking stalls are a minimum of 9 feet wide by 18 feet deep in accordance with RSIS requirements.**

(d) Where sidewalks occur in parking areas, parked vehicles shall not overhang or extend over the sidewalk unless an additional two feet of sidewalk width are provided to accommodate such overhang. **Project complies, 6' wide sidewalks are provided where adjacent to parking stalls.**

(e) Where sole access to dwelling units is via a parking lot, the following features shall be provided:

1. Designated fire lanes a minimum of 18 feet in width shall be required as provided for in the Uniform Fire Code. **Project complies, Drive Aisle A and Drive Aisle B which would be the designated fire lanes are 24 feet in width.**

2. Parking lots shall be provided with turning bays or other means of turning at intervals of not greater than 1,200 feet. Turning bays, such as hammerheads or other configurations, shall measure at least 18 feet by 60 feet, or provide equivalent maneuvering space. **Project Complies, no sections greater than 1,200 feet are proposed without a means to turn around and ample opportunities to circulate to the parking spaces and circulate throughout the lot are provided.**

3. Parking lots having more than 100 spaces shall have a minimum of two means of ingress and egress, or be provided with a divided-type entrance. **Project complies, a Boulevard Entrance with Main Street is provided.**

3. While the applicant has determined otherwise, we understand that CME is suggesting that an alternative RSIS classification may be applicable. Per the Technical Engineering Review comments, it is suggested by CME that Drive Aisle "A", Drive Aisle "B", and Drive Aisle "D" is being considered by CME as Residential Access Streets and or Multi-family Court and the intervening parking row (Drive Aisle C, Building 6 side lot, ) are being

considered as parking lots. **Langan takes no exception to this alternative interpretation of RSIS and offers the following below in item 4.**

4. Based upon CME's interpretation, and should the board agree with that interpretation, the following compliance with the applicable RSIS standards is identified and de-minimus exceptions from RSIS is requested as noted
  - (a) Traveled way width required at 24'. **Should the board concur with the Residential Access Street designation, Project Complies.**
  - (b) Parking lane width equals 18 feet (one sided parking) or 36 feet (two sided parking). **Should the board concur with the Residential Access Street designation, Project Complies with the de-minimis exception that the parking garage driveway apron spaces exceed the minimum 18 feet depth.**
  - (c) Curb required along both sides of the street. **Should the board concur with the residential Access Street designation, Project Complies**
  - (d) Sidewalk required along both sides of the street. **Should the board concur with the Residential Access Street designation, a De-minimus exception is requested. The project provides a system of sidewalks and pedestrian crosswalks that are logical to the project layout. Strict compliance with the requirement would result in unnecessary sidewalk links and increased impervious coverage. The sidewalk system as designed is logical and provides for a safe pedestrian environment within the residential lot.**
  - (e) Sidewalks along streets with nonparallel parking shall be placed parallel to the street, and shall not be located between the parked vehicles and the traveled way. **Should the board concur with the Residential Access Street designation, the Project substantially complies with the exception of in front of each building where a sidewalk is provided between the street and the parking spaces and unit garages. The design is a typical design for a sidewalk system within a multi-family community with garage driveway space combinations and is a safe condition for motorists and pedestrians. Logical pedestrian linkages are provided connecting to sidewalk areas along the driveways to Main Street.**
  - (f) The minimum Street Grade shall be 0.5 percent. **Should the board concur with the Residential Access Street designation, Project Complies.**
  - (g) The maximum street grade shall be 12 percent. **Should the board concur with the Residential Access Street designation, Project Complies.**
  - (h) The maximum street grade within 50 feet of an intersection shall be 5 percent. **Should the board concur with the Residential Access Street designation, Project Complies**
  - (i) The minimum horizontal curve radius shall be 100 feet (measured from the centerline of the street). **Should the board concur with the Residential Access Street designation, A de-minimus exception is requested for curves along drive aisle "A",**

**Drive Aisle "B" and drive aisle "D". The proposed design is typical for a multi-family residential community. The reduced curves discourage excessive rates of speed, provide for traffic calming and maximizes safety in the mixed pedestrian/ vehicular environment of the parking areas. The design maintains proper design to accommodate the safe movement of the types of vehicles typical to a residential community including emergency vehicles.**

(j) The minimum tangent length between horizontal reverse curves shall be 50 feet. **Should the board concur with the Residential Access Street designation, A de-minimus exception is requested for curves along drive aisle "A". The proposed design is typical for a multi-family residential community. The proposed curvature discourage excessive rates of speed, provide for traffic calming and maximizes safety in the mixed pedestrian/ vehicular environment of the parking areas. The design maintains proper design to accommodate the safe movement of the types of vehicles typical to a residential community including emergency vehicles. RSIS design criteria is based upon a design speed and posted speed of 25 MPH.. The applicant os proposing to post the internal circulation aisles at 15MPH.**

(k) The curb radii at intersections shall be 25 feet. **The project has utilized 25' corner radii where applicable. A de-minimus exception is requested for several locations where less than 25' is provided. Garbage truck and emergency vehicle turning movement analyses has been prepared which shows that the proposed geometry will adequately accommodate the typical vehicles circulating thru the community.**

(l) Sight easements shall be required at all street intersections and horizontal curves. **Should the board concur with the Residential Access Street designation, the required sight lines for the intersections of Drive Aisle "A" with Main Street falls within the existing Right-of-way. Accordingly, no easements are required at the driveway intersections. Internal to the project, the drive aisles are not contained within any Right of Ways or easements that require dedication of internal easement lines within the lot. ). The proposed design is typical for a multi-family residential community. The design maintains proper design to accommodate the safe movement of the types of vehicles typical to a residential community including emergency vehicles. Based on the low speed (15 MPH), parking lot design of the facility, dedicated sight lines along the internal curves are not required and accordingly a de-minimus exception of this provision is requested. The internal drive aisles are typical to a multi-family development and adherence to the RSIS requirements for a Residential Access Street in this community would encourage higher rates of speed, and would compromise the pedestrian/ vehicular environment of the community.**

(m) Vertical curves shall be required along all streets. **Should the board concur with the Residential Access Street designation, Project Complies with the exception of at Drive Aisle "A" and "D". It is noted that at lower rates of speed, the design speed and the posted speed is typically the same and the design standards adopted by RSIS are based upon a design speed of 25 mph. Regardless, it is the applicants**

**position that designing the short drive aisle segments to encourage higher rates of speed is not appropriate and is contrary to the design intent to create a safe pedestrian/ vehicular environment typical to a residential community of this size. The proposed arrangement of circulation aisles, parking spaces and access to residential units and their garages are typical, logical and efficient in creating a safe pedestrian/ vehicular environment for a residential community of this size and arrangement.**

(n) Vertical curves shall provide minimum required sight distances based on a speed limit of 25 mph (30 mph design speed). **Should the board concur with the Residential Access Street designation, a de-minimus exception is requested. It is noted that at lower rates of speed, the design speed and the posted speed is typically the same and the design standards adopted by RSIS are based upon a design speed of 25 mph. Regardless, it is the applicants position that designing the short drive aisle segments to encourage higher rates of speed is not appropriate and is contrary to the design intent to create a safe pedestrian/ vehicular environment typical to a residential community of this size. The proposed arrangement of circulation aisles, parking spaces and access to residential units and their garages are typical, logical and efficient in creating a safe pedestrian/ vehicular environment for a residential community of this size and arrangement.**

#### G. ROADWAY IMPROVEMENTS AND MISCELLANEOUS

1. *The Applicants Engineer sghall provide site circulation plans showing the travel paths of emergency, garbage, recycling, and delivery truck design veicles in order to verify that the on-site circulation system provides daquate access for the required emergency and service vehicles.*

**Attached are copies of vehicular turning path exhibits for a fire truck (ladder truck) and garbage truck. Both vehicles can adequately circulate the project circulation system. Delivery vehicles and moving vehicles would typically be similar or smaller vehicles.**

#### H. TRAFFIC

1. *As indicated in Table 3 of the Traffic Impact Study, there will be a significant increase in average vehicle delay (seconds per vehicle) for Stegiel Place approach to the Main Street intersection as a result of the proposed site driveway to be located directly across Main Street. The Applicant's Traffic Engineer should identify the specific reason for the increase in delay and provide suggested remedial measures for same.*

**All movements at this "stop"-controlled intersection are expected to operate LOS B or better during both the weekday morning and evening peak hours with the exception of the eastbound Stegiel Place left-turn/right-turn movement, which is expected to operate at LOS F during both peak hours, under the No-Build condition. Under the Build condition, all movements at this "stop"-controlled intersection are expected to operate at LOS D or better during both the weekday morning and evening peak hours with the exception of the eastbound Stegiel Place left-turn/through/right-turn movement, which is expected to continue to operate at LOS F during both peak hours**

**and the westbound site driveway left-turn/through movement, which is expected to operate at LOS F during both peak hours. The increase in vehicle delay results from the inclusion of a 4<sup>th</sup> leg to the intersection analyses which results in additional calculations incorporating the new approach in the delay calculations. The driveway is appropriately located aligned opposite an existing intersection on the highway and does not add a new intersection point of conflict along the roadway.**

**In evaluating the analyses results, we note that the queues experienced on both the eastbound and westbound approaches will be no longer than one vehicle during both peak hours and will be maintained along each approach. The majority of the traffic exiting the site driveway will travel to the north along Main Street (CR 670) via a separate right-turn lane. This will allow the majority of the exiting traffic to leave the site without experiencing significant delays. Additionally, the volume to capacity (v/c) ratios experienced on both the eastbound and westbound approaches will be below 1.0 during both peak hours. A v/c ratio less than 0.85 generally indicates that adequate capacity is available and vehicles are not expected to experience significant queues and delays. The analyses shows calculated v/c ratios well below 0.85**

- 2. Appropriate traffic control signage for the onsite roads and parking areas should be reviewed by the Applicant's Traffic Engineer and added to the site plan where recommended.*

**Comment acknowledged. The site plan has been revised to include the appropriate traffic control signage for the onsite roads and parking areas.**

Langan trusts that this information is responsive to the provided comments and request for additional information. If there are any questions on the above and attached information, please do not hesitate to contact our Lawrenceville, New Jersey office.

Sincerely,  
**Langan Engineering and Environmental Services, Inc.**



Karl A. Pehnke, P.E., PTOE  
Vice President

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