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May 15, 2018

Ronald Johnson, Zoning Officer
Township of Cranford
8 Springfield Avenue
Cranford, NJ 07016

Re: Traffic Review Letter
750 Walnut Street
Block 541, Lot 2
Township of Cranford, Union County, NJ
MC Project No. CDZ-240

Dear Mr. Johnson:

Hartz Mountain Industries, Inc. (“Applicant”) has submitted a rezoning request to amend the zoning on Block 541, Lot 2, known as 750 Walnut Avenue (CR 632). The property encompasses 30.5 acres and is currently zoned Office Research Distribution District (ORD-1). The Applicant seeks to rezone the property to permit a full build-out of 905 apartment units.

Our traffic engineering professionals met with Detective Lieutenant Edward Davenport of the Cranford Township Police Department on May 24, 2017. The meeting was held to review and discuss the proposed zoning application with regard to traffic operations and safety. The comments and recommendations issued in this Traffic Review Letter reflect the collaborate review.

The following documents, which were submitted in support of the rezoning request, have been reviewed:

1. Report entitled “Traffic Impact Study for 750 Walnut Street – Residential”, prepared by Langan Engineering and Environmental Services, Inc., dated March 20, 2017.
2. Plans entitled “Zoning Plans for Hartz Mountain Industries, Inc. Proposed Residential Redevelopment Plan”, prepared by Stonefield Engineering and Design, dated March 21, 2017.
3. Township of Cranford Application for Rezoning of Property, dated March 24, 2017.



Background Information

This section of the report provides background information relative to the proposed application.

1. The Applicant is Hartz Mountain Industries, Inc.
2. The subject property is situated within Block 541, Lot 2 and currently contains a partially occupied office and medical-office building. The subject property has frontage along Walnut Avenue (CR 632) to the east. Existing access is provided via two unsignalized driveways along Walnut Avenue (CR 632).
3. The Applicant proposes to raze the existing land uses and redevelop the project site with 905 apartment units in two phases. The first phase includes redeveloping the front portion of the subject site with 433 apartment units, while the rear of the site would include a remainder of the existing building. The second phase includes razing the remainder of the existing building and constructing 472 apartment units on the balance of the site. The full build-out of the site would include 905 apartment units.
4. The following three access points are proposed for the project site:
 - The southern access point is proposed as a right-in/right-out driveway along Walnut Avenue (CR 632) opposite to Mitchell Place.
 - The center access point is proposed as a full-movement signalized intersection along Walnut Avenue (CR 632) opposite to Behnert Place. The center site driveway eastbound approach is proposed with a dedicated egress left-turn lane and right-turn lane. A Walnut Avenue (CR 632) northbound left-turn lane is proposed.
 - The northern access point is proposed as a full-movement unsignalized intersection along Walnut Avenue (CR 632) opposite to Lexington Avenue. The northern site driveway eastbound approach is proposed with a dedicated egress left-turn lane and right-turn lane. Turning lanes are not provided on Walnut Avenue (CR 632) at the northern access point.
5. Automatic Traffic Records were installed along Walnut Avenue (CR 632) and Mitchell Place from Thursday, January 26, 2017 to Sunday, February 5, 2017. Existing manual turning movement counts were performed Tuesday, October 25, 2016 from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00PM at the following intersections:
 - a. Raritan Road (CR 607) & Walnut Avenue (CR 632)
 - b. Walnut Avenue (CR 632) & Existing S. Driveway
 - c. Walnut Avenue (CR 632) & Existing N. Driveway
 - d. Walnut Avenue (CR 632) & Lexington Avenue



6. Trip Generation estimates were based upon the Institute of Transportation Engineers (“ITE”) *Trip Generation Manual, 9th Edition*. The Applicant’s Engineer utilized ITE Land Use Code 220 – Apartment for the Weekday AM and PM peak hour capacity analyses. Based upon the ITE Trip Generation Manual 9th Edition estimates, the site will generate 447 trips and 515 trips during the Weekday AM and PM peak hours, respectively.
7. The Traffic Impact Study reflects reoccupying the vacant portion of the office / medical-office buildings in the No-Build condition. The Traffic Impact Study states 190,497 SF of the existing building is vacant. The No-Build condition was analyzed by generating the trips associated with reoccupying the 190,497 SF vacant building. Therefore, the delta between the No-Build and Build conditions is less than the delta between the Existing and Build conditions.
8. The Traffic Impact Study provided an As-of-Right analysis comparing the proposed development to 523,264 SF of office space and 281,758 SF of medical-office space.
9. A Manual on Uniform Traffic Control Devices (“MUTCD”) traffic signal warrant analysis and a 3-year crash analysis was conducted in the Traffic Impact Study in support of a new traffic signal.

Review Comments

This section of the report provides the review comments relative to the proposed application.

General Comments

1. In general, the Traffic Impact Study was performed using acceptable traffic engineering principles, methodologies and analysis software at the time of submission.
2. The proposed development has frontage along Walnut Avenue (CR 632), which is under jurisdiction of Union County. Union County Planning Board approval will be required.

Traffic Comments

3. The Traffic Impact Study at the time of submission utilized the latest version of the ITE Trip Generation Manual, 9th Edition for trip generation purposes. The ITE Trip Generation Manual was updated in September 2017 to the 10th Edition. The Applicant’s Traffic Engineer should discuss if the Trip Generation Manual update would have any significant change to the trip generation estimates for the proposed development scenario and the as-of-right scenario.



4. The egress left-turns at the proposed northern driveway were omitted in the volume figures and capacity analysis. The egress left-turns at the northern driveway should be reflected in the capacity analysis to ensure acceptable operation.
5. There is a concern regarding the location of the proposed traffic signal at the center site driveway / Behnert Place. Currently, the northern driveway is proposed to permit ingress left-turns without a left-turn lane against a heavy peak hour through volume. The northern site driveway is proposed opposite to Lexington Avenue, which is a collector roadway servicing a commuter pattern. The proposed traffic signal at the center site driveway is located at Behnert Place, a local residential street that does not carry significant traffic volumes. Constructing the traffic signal at the northern site driveway provides direct access to a large portion of the proposed residential development and is anticipated to benefit the motoring public more than a traffic signal at the center site driveway. The northern site driveway is anticipated to be able to support longer egress queue lengths than the center site driveway, reducing internal impacts. The additional traffic volumes at Lexington Avenue supported by a traffic signal will enhance the traffic signal warrant analysis.

The Applicant should review the operations at the northern site driveway with a traffic signal as well as unsignalized operations at the center driveway. The construction of ingress turning lanes along Walnut Avenue (CR 632) should be reviewed at both the center site driveway and northern site driveway. The egress left-turn operations should also be reviewed. A Walnut Avenue (CR 632) northbound protected/permitted left-turn lead phase and coordination with the traffic signal of Walnut Avenue (CR 632) & Raritan Road should be reviewed to improve safety and operations in the study area.

6. Based upon the trip generation estimates in the Traffic Impact Study, there are over 100 trips generated by the project site south of the intersection of Walnut Avenue & Raritan Road and north of the intersection of Walnut Avenue & Lexington Avenue. Testimony or an evaluation should be provided to confirm the study area is adequate to assess the traffic impact of the proposed development.
7. Testimony should be provided regarding any failing conditions at Mitchell Place, Behnert Place and Lexington Avenue.
8. The trip distribution is practical and was estimated based upon typical engineering practices. However, the driveway assignments should be revisited based upon the site layout and the arrival / departure patterns. It is anticipated that a larger split of Walnut Avenue SB right-turn trips will utilize the northern site driveway rather than the southern site driveway.



9. The Traffic Impact Study utilized HCM standards for the unsignalized intersections. However, the Synchro Timing, Lane and Volume Reports were used for the signalized intersections. HCM standards should be used for the signalized intersections.
10. The Applicant should provide documentation and/or testimony regarding the 190,497 SF vacancy of the existing building. Additionally, testimony should be provided regarding the As-of-Right analysis for 523,264 SF of office space and 281,758 SF of medical-office space. The feasibility of constructing 523,264 SF of office space and 281,758 SF of medical-office space on-site with parking facilities and any environmental constraints should be considered in the As-of-Right analysis.
11. The Applicant should confirm that all infrastructure improvements will be in place for the Phase 1 build-out.
12. The Traffic Impact Study should reflect any adjacent approved developments in the No-Build and Build conditions, if applicable.
13. The proposed traffic signal must meet current Americans' with Disabilities Act (ADA) PROWAG and MUTCD standards. Crosswalks and curb ramps should be provided on all approaches.

Site Plan Comments

14. Appropriate signage, striping and curb should be provided at the proposed southern right-in/right-out driveway. It is recommended to increase the length of the striped gore median to enhance the delineation of the right-in/right-out regulation.
15. Emergency vehicle (Cranford Township Fire Truck), Refuse Vehicle and Passenger Vehicle circulation plans should be provided. Access to the rear buildings is currently provided via a "hammerhead" turnaround. Fire trucks may have difficulty accessing the rear buildings. It is recommended to review the emergency access including a full turnaround space for emergency vehicles and/or an emergency access roadway at the rear of the site.
16. Sight Distance in accordance with the American Association of State Highway Transportation Officials ("AASHTO") Green Book should be included on the Site Plans and discussed. Sight Distance is required at the unsignalized driveways and for right-turns at the traffic signal if right-turns on red are permitted.



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Please contact our office should you have any questions with regard to the above comments.

Very truly yours,

MASER CONSULTING P.A.

A handwritten signature in blue ink that reads 'S. Maurice Rached'.

S. Maurice Rached, P.E., PTOE
Senior Principal
Director of Transportation Services

NDA

cc: Detective Lieutenant Edward Davenport, Cranford Police Department (via email)
Carl O'Brien, Maser Consulting (via email)
Debbie Lawlor, Maser Consulting (via email)
Kristin Russell, Maser Consulting (via email)

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