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December 26, 2024

Kent A. Baird, Director of Planning
Palmer Township
3 Weller Place
Palmer, PA 18045

Re: Transportation Impact Study – 1st Review (Palmer Township)
TIS for Proposed Warehouse Development at 1525 Wood Avenue
Easton Wood Avenue PropCo, LLC
KCI Project No. 222209756 (00000433_00001)

Dear Mr. Baird:

KCI Technologies, Inc. has prepared this response letter to address Palmer Township's comments dated November 5, 2024 (from Carroll Engineering Corporation) regarding the Transportation Impact Study (TIS) for the proposed warehouse development at 1525 Wood Avenue in Wilson Borough, Palmer Township, and City of Easton, Northampton County.

Transportation Impact Study (TIS)

1. *Please provide the Crash Analysis for Proposed Warehouse at 1525 Wood Avenue (June 2024) report for review.*

Provided.

2. *It is noted that the Traffic Impact Study optimized signal timings for signalized intersections within Palmer Township. Please note these proposed signal timing adjustments in the conclusion and recommendations section of the traffic report.*

The optimized timings for future analysis years maintain all existing cycle lengths, offsets and phasing. The splits (green times) were optimized in the future without development scenario (includes background growth). These timings are utilized as the base timings for the future with development scenarios. Retiming is only recommended as an improvement in the TIS if optimization of splits (green times) is required to mitigate the impacts of site-generated traffic in the development scenarios when the future base timings (optimized for without development scenario) are considered.

This is in accordance with PennDOT's required methodology and reflects two realities: (1) Traffic signals are typically retimed by the municipality that owns/maintains the signal at regular intervals as part of routine signal maintenance. (2) The traffic signal permit plans on file with the Department are often not reflective of the splits (green times) that are currently implemented in the field. Thus, the applicant's engineer according to PennDOT TIS methodology is required to optimize the splits in

without development conditions and use these as the base timings for evaluation of the impacts of site-generated traffic. No retiming is currently proposed at signalized intersections in Palmer Township as no optimization was required to mitigate the impacts of site-generated traffic with the base timings that were optimized without site-generated traffic.

KCI is happy to discuss this comment with Palmer Township staff in greater detail including concerns with the existing green times for particular movements based on the addition of site-generated traffic.

3. *At Intersection 6, the 95th percentile queue length for the northbound through lane exceeds the existing storage capacity under the development condition. Confirm whether this queue length will cause spillback into the turn lanes.*

The storage for this movement noted in the tables (378') is the distance back to a right-in/right-out driveway. The distance back to the adjacent traffic signal (Easton Area High School) is approximately 780' (the max 95th percentile queues are approx. 500'). Also, the increase from without development queue length to with development queue length is 13' or less for this movement in each scenario (less than a single vehicle length).

The queue does not extend back to the adjacent signalized intersection and the development is anticipated to add less than a single vehicle length to the queue in any scenario.

4. *At Intersection 9, the 95th percentile queue lengths for both the northbound and westbound lanes exceed the existing storage capacity under the development conditions. Confirm whether this queue length will cause spillback for turn lane movements. The Applicant does not appear to be requesting any variances as part of this application.*

The 50th percentile peak hour queue lengths are all accommodated within the existing storage. For the 95th percentile queues noted, these queue lengths exceed storage in existing and without development conditions for the weekday afternoon peak hour. The increase from the without development 95th percentile queue length to with development queue length is less than a single vehicle length (15' or less). Since these are existing deficiencies and the operations are no worse than without development conditions (less than a single vehicle length increase in 95th percentile queue), it does not appear that a variance is appropriate nor required.

5. *The Township has concerns with the potential for increased truck volumes on Wood Avenue, which is a narrow local road with little or no shoulders. The Applicant must explore ways to ensure potential site traffic does not negatively impact safety in the area, as there is an existing park, walking trail, bike path and pedestrian crossings.*

The *Transportation Impact Study* proposes roadway improvements to facilitate safe and efficient site access and to meet all PennDOT and municipal ordinance mitigation requirements. All proposed roadway improvements are designed to accommodate the maximum semitrailer truck design vehicle. The *Crash Analysis for the Proposed Warehouse Development at 1525 Wood Avenue* (last updated in

the Cycle 2 TIS submission) addressed existing crash trends and corridor crash rates for Wood Avenue.

Wood Avenue (SR 2017/SR 2024) supports existing truck traffic and will see a marginal increase in daily truck traffic. PennDOT's TIRe system estimates the daily truck traffic as 364. 50% of the warehouse truck traffic is anticipated to utilize this route, resulting in an increase of 116 daily truck trips. The anticipated daily truck traffic for Wood Avenue (SR 2024 south of Hackett Ave) with the proposed development is therefore 480 (an increase of 32%). While the percentage increase is significant, the total daily truck traffic is anticipated to remain under 500 and the development represents a minority of the daily truck traffic on the roadway. The minimal shoulder widths in some areas are based on very steep embankment slopes and cannot be feasibly widened within the scope of this project.

6. *Consideration should be given to placing a Weight-Restriction on Hackett Avenue due to the steepness of slopes, vertical curve issues, limited to no shoulders, lack of drainage features, and no ability to pull off on shoulders.*

See PennDOT correspondence (Response to Cycle 4 Comments). The proposed development does not add any anticipated truck volumes to Hackett Avenue to the west of the proposed site access driveway.

7. *The Township has concerns about the capacity and timing of the interchange traffic lights at 25th Street and Route 22, as the project has the potential to significantly increase the traffic volumes. The Township is concerned about pedestrian safety in the area, as there are currently pedestrian crosswalks, but no walkways or sidewalks in the area. The potential future development of the former "K-Mart" site, and the "Dixie Cup" factory are also upcoming large traffic generators for this interchange and are recommended for consideration with the Application.*

The *Transportation Impact Study* is prepared so that there is an objective means by which to evaluate concerns with traffic operations with the addition of proposed development traffic. Based on the site-generated trip assignment, the project does not significantly increase traffic volumes at the intersections on 25th Street. Approximately 1-2% of future traffic volumes at these intersections is attributable to the proposed development in the weekday peak hours.

No traffic study methodology includes "potential future development" if there was not a traffic study in progress at the time of the TIS scoping or report submission for the potential future development. The comment suggests that these developments will be significant traffic generators for this interchange and will contribute significantly more traffic than the proposed warehouse development at 1525 Wood Ave. Standard traffic study methodology requires that the traffic study for these developments include the proposed warehouse development at 1525 Wood Ave in their evaluation of future without development conditions as the warehouse development has an active TIS/HOP and Land Development application prior to the TIS scoping process for these developments.



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8. *Based upon the aforementioned concerns about the 25th Street interchange, the potential impacts to the Wood Avenue Corridor, and the likelihood of truck traffic becoming stranded in Easton West Ward, off 13th Street, we recommend PennDOT investigate the feasibility of reconfiguring the 13th Street eastbound Route 22 off-ramp to accommodate left turning movements.*

After discussion, neither PennDOT nor the City of Easton desire adding this left turn movement back. Additional geometric improvements for the referenced intersection/interchange are proposed in the revised TIS. Adding this left turn movement that was previously removed by the Department is not supported by PennDOT nor the City of Easton and is beyond the scope of this project if it were to be considered for other reasons in the future.

Should you have any questions regarding the revised TIS or response to comments letter, please contact me.

Regards,

Ian Preston

Ian Preston, PE
Project Engineer
KCI Technologies Inc.