



January 2, 2023

Sutapa Samanta, P.E.
Acting Metropolitan District Engineer
Maryland Department of Transportation
Maryland State Highway Administration
District 4 – Baltimore and Harford Counties
320 West Warren Rd.
Hunt Valley, MD 21030
Via Email ssamanta@mdot.state.md.us

RE: Traffic Impact Study
Mitchell Property-Illegal Freight Terminal-MD 159
MDOT SHA 21APHA021XX

Dear Ms. Samata:

The 3P Protect Perryman Peninsula, LLC. (3P) acknowledges the comments the Maryland Department of Transportation State Highway Administration (MDOT SHA) provided to Chesapeake Real Estate Group, LLC. (CREG) on Version 2 (dated as June 2022) and Version 3 (September 28, 2022) of the Traffic Impact Study prepared for the Freight Distribution Center (FDC) proposed on the Mitchell property in Perryman, Maryland.

After our review, we continue to oppose the project concept in its entirety as contrary to the nature of the surrounding residential neighborhoods and illegal for the land zoned light industrial and taxed agricultural. With that in mind, 3P continues to have several concerns with the Traffic Impact Study (TIS) related to this development and believes the developer needs to address those comments provided by MDOT SHA adequately. Therefore, 3P would like to offer input and recommendations to the following comments:

MDOT SHA Comment #2 (dated 11/10/22)

Comment #2 states: The proposed mitigation plan on page 46 for MD 159 between intersections (I/S) #13 (Spesutia Road) and #14 (Chelsea Road) calls for I/S #14 to be changed to a Maryland T. First, constructing the raised, channelizing island at I/S #14 will significantly reduce the storage for the downstream left turn for MD 159 at Spesutia Road (Exhibit 11B indicates there will be 562 vehicles making that movement in the PM peak). Additionally, the Maryland T will create a situation where the significantly heavier movement (northbound Chelsea Road to turn left on Spesutia Road)

will have to change lanes to enter the left turn lane for Spesutia Road. It is recommended the developer consider other alternatives including, but not limited to, changing the lane assignments of the Maryland T to something similar to the Chelsea Road and Canning House Road design shown on page 47; construction of a roundabout at the Chelsea Road intersection; and/or additional widening and/or other lane assignments at and between I/S #13 and I/S #1

3P Recommendation

We recommend designing one large roundabout (ROB) at MD 159, intersections (Spesutia Road and Chelsea Road) as shown in [Figure 1](#) below, to include the proper turn-lane signage to segregate the FDC traffic from local traffic going through the small residential village of Perryman.

The village of Perryman is a small rural community with homes and businesses located directly on Perryman Road, including a family-owned convenience store (Perryman Grocery) and a low-income, primarily minority-occupied apartment complex off Spesutia Road (Perrywood Gardens). Unfortunately, many of the same residents walk along these roads daily, both of which have inadequate pedestrian facilities. Not to mention the problem with tractor-trailers using Spesutia Road, which is already prohibited for trucks weighing over $\frac{3}{4}$ ton, as we don't want the same issues with tractor-trailers traveling on Perryman Road. Any improvements must be coordinated with Harford County Division of Highways who is currently designing improvements on Spesutia Road. which

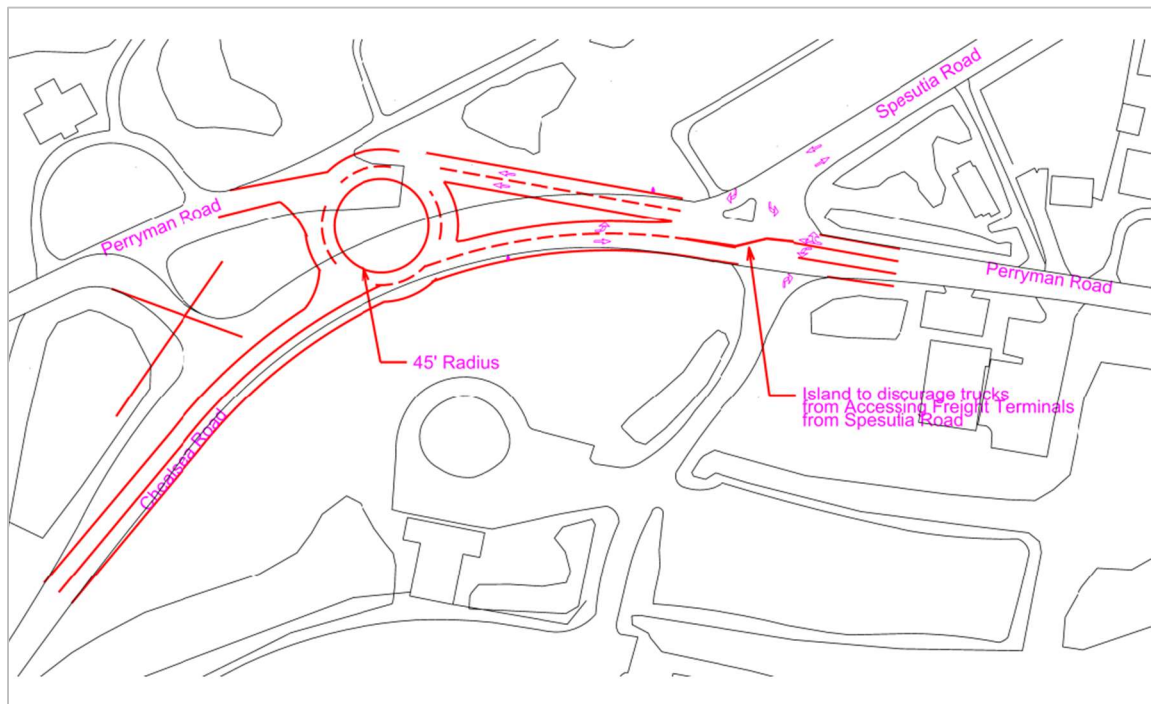


Figure 1 - Proposed Round about at Chelsea Road and Perryman Road0

MDOT SHA Comment #3 (dated 11/10/22)

Comment #3 states: That truck traffic along the residential section of MD 159 will be discouraged, however future synchro models have MD 159 between Canning House Road and Chelsea Road and Fords Lane utilizing a 15% heavy vehicle percentage.

3P Response

Representatives of the 3P organization, including myself, met with CREG via Google Meeting and in person at Frederick Ward and Associate's office on February 3, 2022. During that meeting, CREG presented plans and agreed to construct a bridge over Perryman Road, providing the only route for tractor-trailers and support personnel to enter the site, thus keeping tractor-trailers off rural Perryman Road. As shown in [Figure 2: Plan sheet](#) provided to me by CREG on February 2, 2022 (full plan sheet of design is attached). Unfortunately, CREG chose to exclude the bridge over Perryman Road in their current plans.

3P Recommendation

3P recommends reinstating the bridge design proposed at Perryman Road, as this provides the safest way to route thousands of tractor trailers to the site daily.

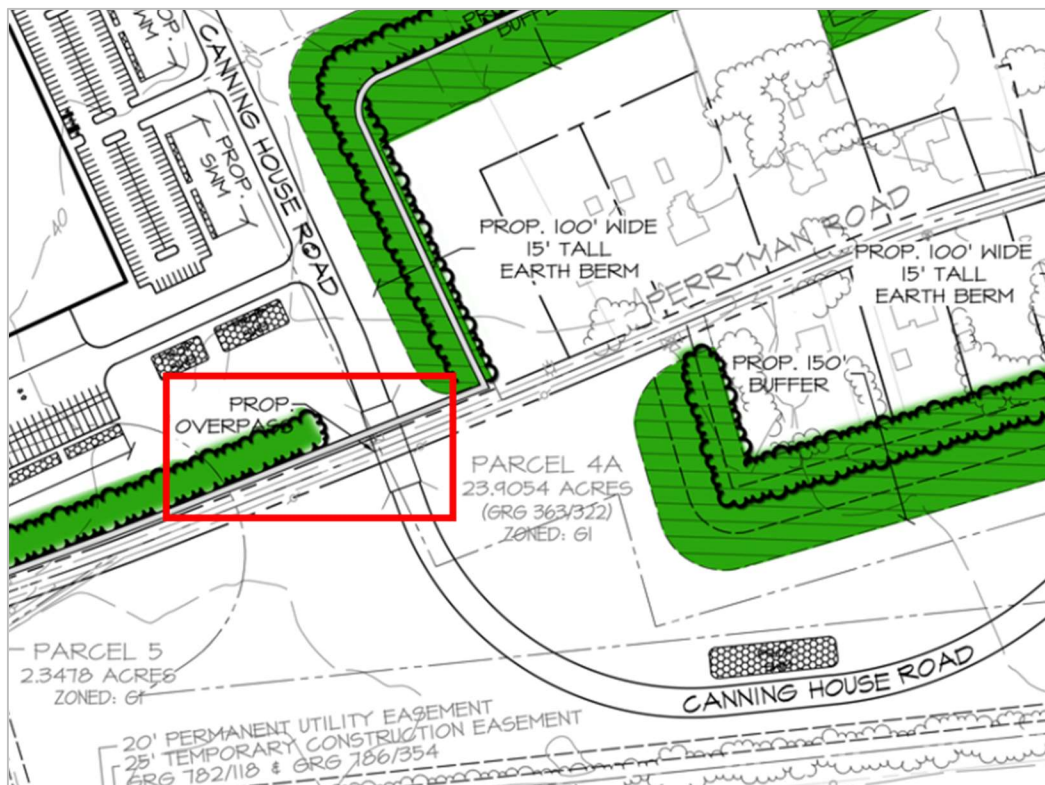


Figure 2-Image from CREG Concept Plan

MDOT SHA Comment #1(dated 07/18/22)

Comment #1 states: Trip Generation – The revised trip generation utilizes ITE Trip Generation Manual 11th Edition Land Use 155 (High-Cube Fulfillment Center Warehouse – Non-Sort). In the Manual for Land Use 155, trip generations are provided for both “sort” and “non-sort” facilities. ITE indicates a “sort” facility ships out smaller items, requiring extensive sorting typically by manual means, and a “non-sort” facility is a fulfillment center that ships large box items that are processed primarily with automation rather than through manual means. The developer utilized the significantly less conservative non-sort facility trip generation to calculate trips rather than a sort facility of the same size. Based on the number of parking spaces called for (3,773 parking spaces and 2,178 trailer parking spaces for a total of 5,951 spaces), it appears more likely the developer plans for it to operate as a sort facility. Therefore, we require the developer to provide more detailed information as to the type / operation / employees expected at the proposed facility. Until this information is provided to us, we cannot provide detailed comments on the analysis and mitigation proposals in the TIS.

CREG’s Reply (dated 09/27/2022)

CREG provided Harford County and the MDOT SHA with additional information concerning the proposed use. In SHA’s letter dated August 16, 2022, MDOT SHA has agreed that the proposed use is a non-sort warehouse as described in the TIS. Changes have been made to the site plan to reflect the non-sort warehouse use, reduced car and truck parking, and the expected peak employee shifts. The TIS incorporates the agreed upon revised trip generation based upon ITE Trip Generation Manual 11th Edition Land Use 155 (High-Cube Fulfillment Center Warehouse – Non-Sort).

3P Response

Appendix VI of CREG’s September 27, 2022 report calculates site trip data for both passenger vehicles and tractor trailers using Warehousing LUC 154 category instead of LUC 155 (pdf page 458 and 460 respectively). Assuming LCU 154 is appropriate for this site there are on average 3,068 daily truck trips and 7,158 daily passenger trips for a total of 10,226 anticipated trips to and from the site. Peak hour traffic ranges between 8-12% of ADT and due to the nature of this facility where workers will arrive and leave at the same time, at the start and end of shifts, 3P suggests the 12% peak hour factor should be used. This would result in the morning inbound passenger vehicles being 695. This is the time of largest movement of passenger vehicles proposed in the September 2022 TIA.

	AM		PM	
	IN	OUT	IN	OUT
High Cube Fulfillment Center Warehouse ITE LUC 155				
5,200,000 gsf	632	148	324	508
Trucks Trips (30%)	190	44	97	152
Passenger Vehicles (70%)	442	104	227	356

Table 1-Site Generation Trip from CREG’s September 2022 Traffic Impact Study

2,531 passenger parking spaces are provided on the CREG's site plans (September 27, 2022) and there are 950 employees at the largest shift. Per the Harford County Code, the site requires "On-site parking as necessary to accommodate traffic generated by the use and the largest employee shift". That leaves 1,581 parking spaces for visitors which is excessive.

In summary, 2,531 parking spaces are proposed compared to and 950 employees at the largest shift and 442 for the largest one-hour vehicle movement (inbound in the AM peak) and 695 using the 12% peak hour rate. It can be assumed that all the employees would arrive within a one-hour period. These numbers do not correlate as they should. Either the number of passenger spaces should be greatly reduced, or number of employees should be increased, and the traffic calculations adjusted accordingly.

Passenger Vehicle Parking	Employees at largest shift	CREG's Peak hour Trips -AM IN	3P suggested Peak Hour Trips-AM IN
2,531	950	442	695

Table 2-Parking, Employees and Largest Trips

It is 3P's concern that should 2,531 parking spaces be constructed as shown on the plans now, over 1,500 additional parking spaces would be available. This could potentially add traffic not captured in the TIS study.

3P Recommendation:

3P recommends that the appropriate number of spaces be provided now, and should more parking be required in the future, it will need to be permitted including a new Traffic Study reviewed by SHA. Additionally, 3P has concerns that the extra parking will be used for storage purposes currently not permitted by the Harford County Zoning Code. An example of this can be seen at a nearby freight distribution center located at 1500 Woodley Road and leased by Wayfair. The extra parking is being used to store and market the lease of international shipping containers; a use specifically prohibited yet not currently enforced by Harford County.

MDOT SHA Comment #2 (dated 07/18/22)

Comment 2 states: Adequacy of Roadway Network - Since it is anticipated a much larger quantity of trucks and passenger vehicles will be using the state roadway network (MD 543, US 40, MD 159, MD 7, etc.) in the area because of the proposed development, the developer will be required to determine whether the existing roadways' pavement design is adequate especially due to the increase in truck volumes.

CREG's reply dated 09/27/2022) This comment appears to be derived from the MDOT SHA assertion that the project is a warehouse "sort" facility. However, with new information provided to MDOT SHA, the MDOT SHA has agreed that the proposed use is a traditional "non-sort" warehouse.

The truck trips as shown in the traffic study and listed below were determined with the ITE, Trip Generation Manual 11th Edition. The truck trips are typical for the use and size of the proposed warehouse development. The road classifications and existing peak hour percentages of heavy vehicles for the State roadways are also summarized in the table ([Table 3](#)) below. These roads are designed by the MDOT SHA in consideration of the expected volumes and truck percentages. While the traffic impact study addresses APFO based upon volume capacity, not pavement design, Traffic Concepts feels that the levels of service from the intersections studied would be the best evidence that the MDOT SHA's road design is adequate to support the proposed trips from this project. The traffic impact study includes the heavy truck percentages as noted in the table below.

STATE ROADWAY	CLASSIFICATION	Peak Hour % of Heavy Trucks (from SHA data – see attached)
MD 543	Minor Arterial	12%
US 40	Principal Arterial	10%
MD 159 (Old Philadelphia Road)	Minor Arterial	No Data Available
MD 7	Minor Arterial	No Data Available
MD 132	Minor Arterial	5%
MD 22	Principal Arterial	5%
MD 715	Minor Arterial	No Data Available
MD 159 (Perryman Road)	Major Collector	15% (see attached traffic count conducted by TCI)

Table 3-Heavy Vehicle Percentages

3P Response

CREG did not address MDOT SHA's comment concerning inadequate road pavement on MD 543, US 40, MD 159, MD 132 and MD 7. Just earlier this year, (as shown in Image 1) MDOT SHA repair the pavement and replaced a culvert on MD 159 due to a sinkhole that developed near 1324 Perryman Road at the entrance to the Clorox plant. The number of heavy tractor trailers contributed to this pavement failure.



Image 1 - MD 159
pavement damage with sink hole

There is also an ongoing flooding problem on US 40 near the MD 132 intersection that results in property damage on a regular basis. Image #2 below shows flooding on August 21, 2022 and Image #3 is from a flood on August 30, 2021. During both events westbound US 40 and the adjacent auxiliary road were completely flooded.

Image 2 – Flooding on 8/21/22
US 40, MD 132 Intersection 275 Ft. to the Right



Image 3 – Flooding on 8/30/21
US 40 Looking at MD 132 Intersection



3P Recommendation

CREG performs the appropriate certified testing of roadway pavement cores and provides a geotechnical analysis report prepared by a certified professional geotechnical engineer on MD 159 and at the US 40 and MD 132 intersection at a minimum. If recent pavement analysis has yet to be conducted on US 7, MD 132, and MD 543, we recommend these roadways be analyzed. Additionally, flooding and drainage issues at the US 40 and MD 132 intersection should be evaluated before over 400 additional passenger vehicles and tractor-trailer traffic are added to this intersection.

Further 3P concerns from the September 27, 2022 Traffic Impact Study.

- Assumed truck percentage of 10% was used for MD 7. This is a route to I-95 from the Perryman Peninsula and the City of Aberdeen and could be higher than 10%. A good portion of MD 7 does not have shoulders for emergencies, and I personally was recently stopped in a several car back-up due to a broken-down tractor trailer located on a vertical incline. **3P recommends tractor trailers be encouraged through signing and other means to use MD 543 to US 40 to MD 159 to access the Perryman Peninsula. 3P further recommends that traffic counts be conducted on MD 7 to determine actual truck percentages.**
- CREG assumes 2/3 of existing traffic will utilize the new Canning House Road connection to exit the Peninsula. This number is assumed and is very unlikely to be this high. The residents will continue to use Perryman Road through the village of Perryman as they have always done particularly because the intersection at MD 159 and Chelsea Road will be at a Level of Service F. **3P recommends the signal warrant analysis be revised to assume 25% of exiting traffic will utilize the new roadway.**
- CREG used the average trip generation rates of 0.15/1000 sf for AM and 0.16/1000 sf for PM per the ITE rates given in their September 2022 TIS. However, the standard deviation for rates is 0.15 for both AM and PM, the volume of traffic generated from the site could easily be double what is used in the traffic analysis. Given the enormous size of this proposed development and numerous unknowns related to final occupants, **3P suggests using a 0.30 rate for AM and 0.31 rate for PM. This gives an PM peak of 678 passenger vehicles which is more in line with the 950 as the largest employees per shift.**

	PM-Peak Hour Passenger Trips	PM-Peak Hour Trucks Trips	PM-Total Peak Hour Trips
CREG	577	249	832
3P Recommendation	678	483	1161

- Background trips were generated using the ITE Manual 10th Edition and previously Harford County approved Traffic Impact Studies. These studies did not use the current ITE methods and manual and therefore the background trips could be underestimated. **3P recommends a review and if needed revision to the background trips to more accurately reflect current conditions.**

3P greatly appreciates your attention and consideration in this matter. Should you have any questions or wish to discuss our concerns in more detail, don't hesitate to get in touch with me at (443) 987-1071 or engineering@protectperryman.com. I would be more than happy to meet with you, the SHA District 4 ADE of traffic, and other staff at your earliest convenience. I would also like to invite you and your staff to 3P's next town hall which we plan to hold in February 2023. More detail are forthcoming.

Best Regards,



Stacy Stone, PE
3P Resident Engineer

CC:

Tim Smith, PE, Administrator MDOT SHA

Teresa Eller, MDOT SHA District 4

Kimon Johnson, MDOT SHA District 4

Brooke Lierman, Maryland Comptroller

Mary Dulaney James, Maryland State Senator, District 34

Steve Johnson, Maryland State Delegate, District 34A

Andre Johnson, Maryland State Delegate, District 34A

Teresa Reilly, Maryland State Delegate, 35B

Bob Cassilly, Harford County Executive

Robert McCord, Harford County Director of Administration

Shane Grimm, Harford County Director of Planning and Zoning

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Jessica Boyle-Tsottles, County Council District E

Jacob Bennett, County Council District F

Patrick McGrady, Mayor of Aberdeen
Adam Hiob, City of Aberdeen Council
COL Johnny M Casiano, Garrison Commander (APG)
Joe Copeland, PE, PMP, Director of Public Works (APG)

Attachments:

- Developer's Concept Site Plan Modifications to Address Community Input (**Attachment I**)
- Response to SHA Comments (dated September 27, 2022) (**Attachment II**)
- MDOT SHA Comments (dated November 10, 2022) (**Attachment II**)
- Exerts from Traffic Impact Study – Version 3 (dated September 28, 2022) (**Attachment IV & V**)
- Site plan-Version 3 Title sheet (dated September 27, 2022) (**Attachment VI**)