



MEMO

TO: Gary Lake, Chairman
FROM: Katherine T. Craig, PE, PTOE
SUBJECT: Stewart's Shops – Crystal Run Road
DATE: January 20, 2023

Dear Mr. Lake,

WSP has reviewed the **responses to comments** of the potential traffic impacts at the proposed Stewart's Shop at Crystal Run Road as prepared by SLR on January 17, 2023, and received on January 18, 2023. This memo responds to the applicant's comment responses from WSP's initial review of the traffic impact study and sent to the Town of Wallkill on December 19, 2022.

WSP provides the following additional comments:

CRASHES

R1) Accident rates are expressed in accident per **million entering vehicles (MEV)** when applied to intersection/interchange accidents. The formula provided by the applicant and used to calculate the crash rate at this intersection is for Million Vehicle Miles (MVM) which is used to calculate linear highway sections. Please use the correct formula

$$\text{Intersection Crash Rate} \left(\frac{\text{crash}}{\text{MEV}} \right) = \frac{1,000,000 * \text{Number of Crashes per year}}{365 * (\text{Sum of AADT's on all approaches})}$$

As the applicant has identified the crashes at this intersection are an existing issue. This project will be adding significant traffic to an existing safety issue and we request that mitigation measures are applied. This would include identifying the appropriate mitigation measures and demonstrating a reduced number of accidents by either Crash Modification Factors or Crash Reduction Factors and how the mitigation would improve safety and mitigate the impacts at this location.

FUTURE TRAFFIC

R1) If the Town of Wallkill confirms the build year then this comment can be closed.

R2) If the Town of Wallkill confirms the build year then this comment can be closed.

The Route 17 PEL Study made a generalized statement regarding growth overall, this was not specific to the Town of Wallkill. The PEL Study utilized the NYMTC BPM to forecast future No-Build and Build traffic volumes in the corridor. The PEL Study was performed during the height of COVID and therefore utilizing NYSDOT continuous and short count data traffic volumes were



developed for 2018 with analytical data from Streetlight. The NYMTC BPM accounted for elasticity and recovery from COVID and by ETC (2025) showed significant growth. The Route 17 PEL study contains a separate traffic report that has appendices and traffic flow diagrams of the study area for existing, no build and build ETC and ETC+30.

R3) For a comprehensive traffic analysis please include the 2.0% growth rates in the revised traffic impact study.

R4) There are multiple approved developments within this corridor. This comment should be discussed further. If the Town of Walkill confirms the build year of 2023 and that no other proposed developments along the Crystal Run Road corridor will be completed prior to this development, then this comment can be closed.

TRIP ARRIVAL/DISTRIBUTION

R1) The response does not match the analysis. The response indicates that there is limited space in the right turn lane, however the Synchro Reports show that the conservative assumption/analysis has a zero queue length for the right turn lane. The Conservative analysis provides acceptable levels of service, comment has been addressed.

R2) If existing travel patterns prevail there will still be acceptable LOS. The updated report should note that the source of the travel patterns (journey to work data). Comment has been addressed.

EXISTING TRAFFIC SIGNAL TIMING

R1) The analysis and report should be updated to reflect the correct cycle length and results.

We hope this information is sufficient for your review. Please feel free to contact me if you have any additional questions.

Kind regards,

Katherine T. Craig, PE, PTOE
Valhalla Practice Lead - Traffic Engineering & ITS