

**DATE:** 6/4/2025

**SUBJECT:** Policies and Procedures for Transportation Impact Studies and Assessments

**TO:** District Executives

**FROM:** Daniel P. Farley, P.E., Director  
Bureau of Operations

for *Doug Tomlinson, P.E.*

This time reducing and resource neutral Strike-off Letter (SOL) revises PennDOT's Transportation Impact Studies (TIS) and Transportation Assessment (TIA) Procedure as described in Publication 282, the Highway Occupancy Permit Operations Manual.

Pub 282 Appendix A has been updated to provide clarification and reduce redundancy. Changes include:

- Nomenclature alterations and a restructuring of the phases and steps.
- Events that trigger a TIS are now called "conditions" (formerly called warrants). While most conditions remain the same, a TIS is now required if hourly volume exceeds 150 entering or exiting trips.
- The TIS requirement for opening year analyses has been eliminated.
- The study scope for a TIA has been limited to the site accesses and an immediately adjacent intersection.
- The Department will now "accept the recommendations/mitigation" as presented in the study. The applicant will no longer have to revise the TIS/TIA beyond this point for "clean-up" type comments.
- Scoping meetings will now only be held on an as-needed basis.
- Revisions now align with recent changes to the Scoping Application Process.
- Clarification regarding site access requirements in relation to the functional area of adjacent intersections and required driveway movement restrictions.
- Incorporated SOL 494-24-02 relating to warehouse facilities trip generation.

The revised content is effective immediately and will be incorporated into the next update to PennDOT's Publication 282. A copy of Pub 282 Appendix A is attached.

Should you have any questions, please contact Michael J. Dzurko, Manager, HOP Program at (717) 783-6080 or [mdzurko@pa.gov](mailto:mdzurko@pa.gov).

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## **APPENDIX A– POLICIES AND PROCEDURES FOR TRANSPORTATION IMPACT STUDIES RELATED TO HIGHWAY OCCUPANCY PERMITS**

The following pages are considered a stand-alone document for the development of Transportation Impact Studies but are implemented as part of this policy by incorporation into the Appendices.

POLICIES and PROCEDURES For

# **TRANSPORTATION**

# **IMPACT**

# **STUDIES AND**

# **ASSESSMENTS**

Related to Highway Occupancy Permits

Pennsylvania Department of Transportation  
Bureau of Operations

June 2025

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## **ATTACHMENT H – SPECIAL LAND USE CONSIDERATIONS AND GUIDANCE**

## CONVENIENCE MARKET WITH GASOLINE PUMPS

The following guidance should be followed when completing studies for various sized convenience markets with gasoline pumps:

### Trip Generation

ITE states, “Convenience Market with Gasoline Pumps (Land Use 853), Gasoline/Service Station with Convenience Market (Land Use 945) and Super Convenience Market/Gas Station (Land Use 960) were re-assigned to a single new land use Convenience Store/Gas Station (Land Use 945). Multiple subcategories were added to this land use to allow for multi-variable evaluation with single-variable data plots. Convenience Market with Gasoline Pumps (Land Use 853) and Super Convenience Market/Gas Station (Land Use 960) were removed as land uses.”

Existing Facilities: For existing facilities that are being rebuilt or being relocated within the same municipality, traffic counts shall be completed at the existing site driveways and local trip generation rates established for each analysis period. The engineer should then determine whether the local trip generation rates or the ITE rates should be used based on the proposed location, size, and adjacent traffic conditions.

Local Trip Generation: Although a proposed development might correspond to the ITE land use code with adequate data points, the applicant may request or PennDOT may require the use of data collected at comparable sites if there is reason to believe that site trip generation will vary from ITE rates.

### Pass-by Trips

1. Weekday A.M. Peak Period and Weekday P.M. Peak Period: Use the pass-by and non-pass-by trip tables in the ITE *Trip Generation Handbook* to determine the appropriate land use pass-by trips.
2. Saturday Midday Peak Period: Use ten percent less than the Weekday P.M. Peak Period average pass-by trip percentage provided in the *ITE Trip Generation Handbook* for applicable land use.
3. According to ITE’s *Transportation Impact Analyses for Site Development*, adjustments should be made to the number of pass-by trips if the results do not appear to be logical or reasonable given the characteristics of the road system and trip distribution. For example, ITE’s *Transportation Impact Analyses for Site Development* states that pass-by trips diverted from a thoroughfare should be rechecked if they represent more than 15 percent of the traffic volume on that street.

### Driveway Design

The study should identify the driveway classification (low volume, medium volume, or high volume), as defined in PA Code Title 67, Chapter 441.1, for each driveway serving the proposed development. If the design standards provided in PA Code Title 67, Chapter 441.9 for the

driveway classification cannot be met (i.e., driveway throat length), justification must be provided. Queue analyses should be completed for the driveway egress to justify driveway throat lengths that are less than those shown in the standards. The site should also be designed to ensure that site traffic circulation (e.g., the location of the gasoline pumps and parking spaces) will not negatively impact the driveway operation. For sites being designed to accommodate trucks, the location of on-site trucking facilities and the impact on site circulation and driveway operation should also be considered.

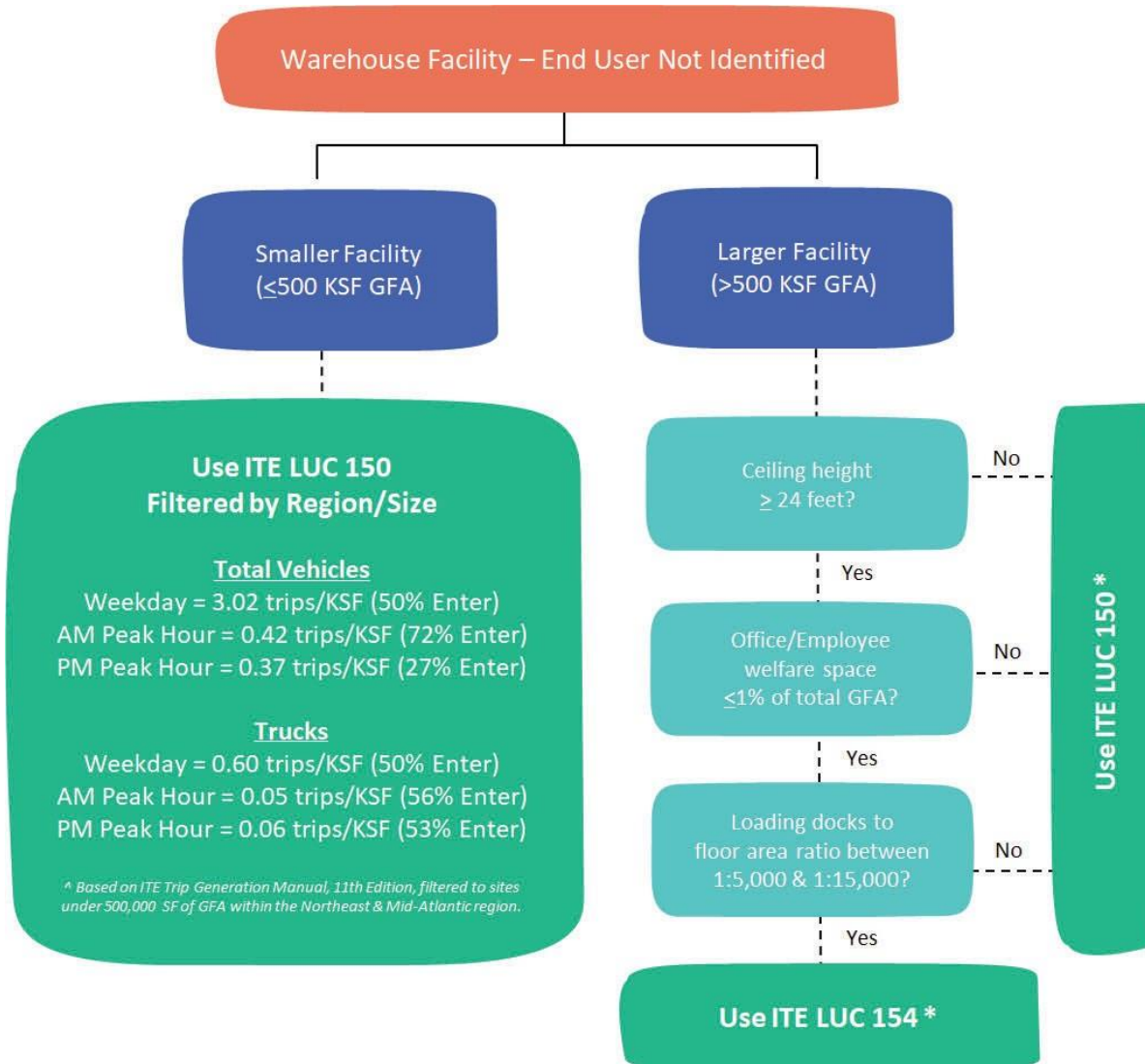
#### Access Management

The study should evaluate the need to restrict turning movements at the proposed driveway(s). If a driveway is proposed within the functional area or corner clearance of an intersection as described in TRB's Access Management Manual, consideration to restrict turning movements should be analyzed based on but not limited to the site design, the adjacent street lane configurations, traffic volumes, traffic speeds, type of highway being accessed, and alternative access points. Additional restrictions may also be required such as the complete elimination of the proposed access.

## WAREHOUSE FACILITIES

Based on the findings from a Department study, the following best practices guidance was developed for Districts to consider when permitting speculative warehouse facilities:

- Understand the use in the land use: The amount of traffic associated with a warehouse facility can vary greatly depending on the function and logistics designation. As part of the scoping meeting, applicants should document the characteristics of the warehouse use.
  - Cross docks may signify major distribution centers or large fulfillment centers.
  - Building height greater than 40 feet may signify cold storage facilities.
  - Large parking fields may signify larger employee count for the facility indicative of fulfillment centers.
  - Parking fields that accommodate various vehicle types may signify a last-mile fulfillment center.
  - Facilities with very high truck parking ratios to dock positions may signify a parcel hub.
- Utilize data subsets in ITE TripGen web app: The ITE digital trip generation database can be filtered to provide a better estimation of trips for smaller facilities. If employed, consider the use of ITE Land Use Code 150 warehouse trip data filtered by size (under 500 KSF) and region (Northeast & Mid-Atlantic) for smaller facilities.
- Specify Land Use Code 150 permits are not inclusive: Understanding trip characteristics vary based on the function and logistics of a warehouse facility, consider clearly specifying that highway occupancy permits classified under Land Use 150 are not inclusive of other warehouse-type facility, including but not limited to cold storage, last-mile fulfillment centers, and parcel hubs. If tenancy changes occur in the future, applicants should be required to supplement the existing permit with additional information so the Department can determine if additional traffic mitigations are warranted.
- A step-by-step procedure (flow chart) is provided below for the Department to consider in determining how best to estimate trip generation for future speculative warehouse facilities until such time that a new version of ITE's Trip Generation Manual is published.



*\* Follow ITE Trip Generation Handbook guidance for selecting average rate or equation in Trip Generation Manual Data*

Note: The Department's Warehouse Trip Generation Study can be found in the Department's P:\permits shared folder.