

Auxilary Turn Lane Warrant Analysis





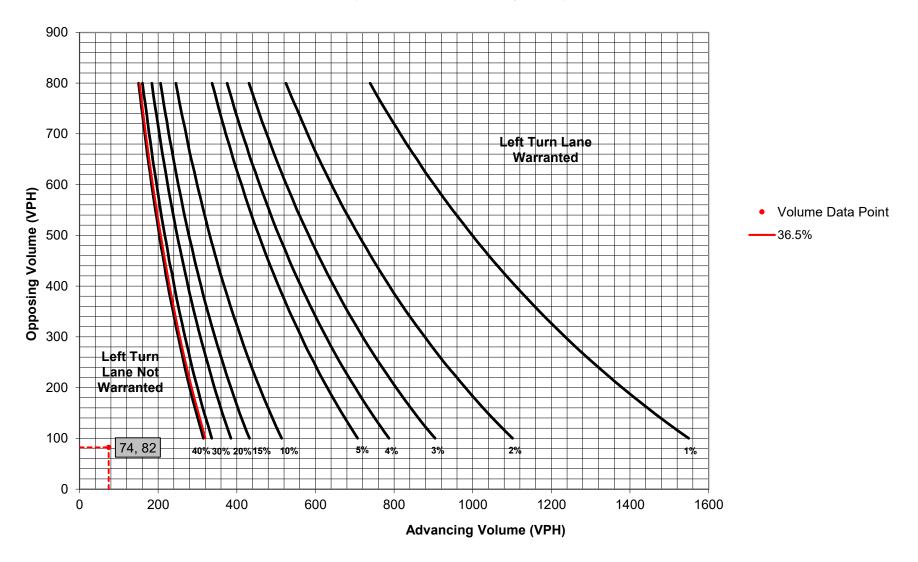
Mt. Pleasant Road & Proposed Eastern Driveway



STUDY LOCATION AND ANALYSIS INFORMATION 11/7/2025 Mount Joy Township Municipality: **Analysis Date:** Lancaster County Conducted By: DZ County: **PennDOT Engineering District:** Checked By: JW Agency/Company Name: TPD, Inc. Intersection & Approach Description: Mt. Pleasant Road & Proposed Eastern (car-only) Driveway - Eastbound Left 2035 Projected (Build) **Analysis Period: Number of Approach Lanes: Design Hour:** AM Peak Hour **Undivided or Divided Highway:** Undivided **Intersection Control:** Unsignalized Posted Speed Limit (MPH): 40 Type of Analysis Left or Right-Turn Lane Analysis?: Left Turn Lane Type of Terrain: Level **VOLUME CALCULATIONS** Left Turn Lane Volume Calculations Movement Include? Volume % Trucks **PCEV** Left Yes 26 2.0% 27 **Advancing Volume:** 74 41 47 Advancing Through 25.0% 82 **Opposing Volume:** 0 0.0% N/A Right No Left Turn Volume: 27 0.0% N/A Left No 0 Through Opposing 55 15.0% 60 Right Yes 21 2.0% 22 % Left Turns in Advancing Volume: 36.49% Right Turn Lane Volume Calculations Include? Volume % Trucks PCEV Movement No Left 0.0% N/A 0 15.0% N/A N/A Advancing Through 55 **Advancing Volume:** Right 21 2.0% N/A **Right Turn Volume:** N/A **TURN LANE WARRANT FINDINGS** Left Turn Lane Warrant Findings **Right Turn Lane Warrant Findings Applicable Warrant Figure:** Figure 2 **Applicable Warrant Figure:** N/A Warrant Met?: No Warrant Met?: N/A **TURN LANE LENGTH CALCULATIONS Intersection Control:** Unsignalized 27 **Design Hour Volume of Turning Lane:** 60 Cycles Per Hour (Assumed): Cycles Per Hour (If Known): Average # of Vehicles/Cycle: PennDOT Publication 46, Exhibit 11-6 Speed (MPH) 25-35 50-60 40-45 Type of Traffic Control **Turn Demand Volume** High Low High Low High Low Signalized B or C B or C B or C B or C Α Α Α Unsignalized Left Turn Lane Storage Length, Condition A: N/A Feet N/A Condition B: Feet Condition C: N/A Feet N/A Required Left Turn Lane Storage Length: Feet **Additional Findings:** N/A Additional Comments / Justifications:



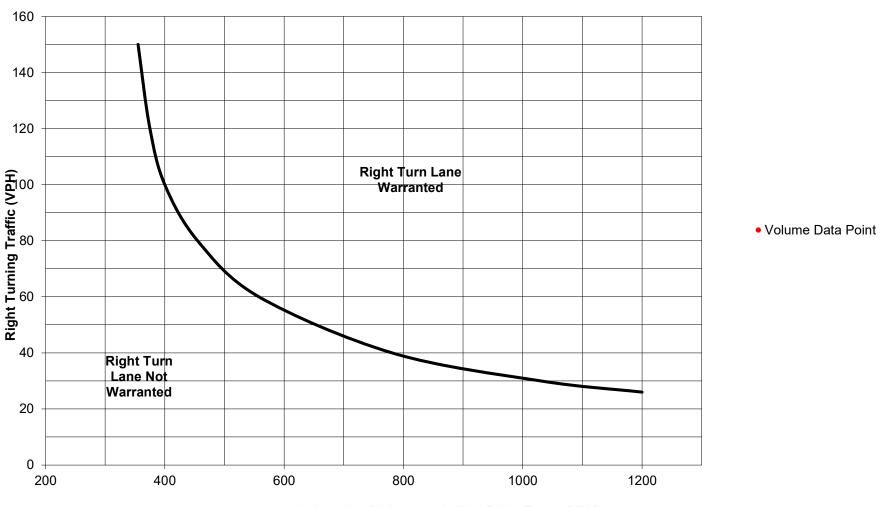
Figure 2. Warrant for left turn lanes on two-lane highways (40 mph speed, unsignalized and signalized intersections)
(L = % Left Turns in Advancing Volume)



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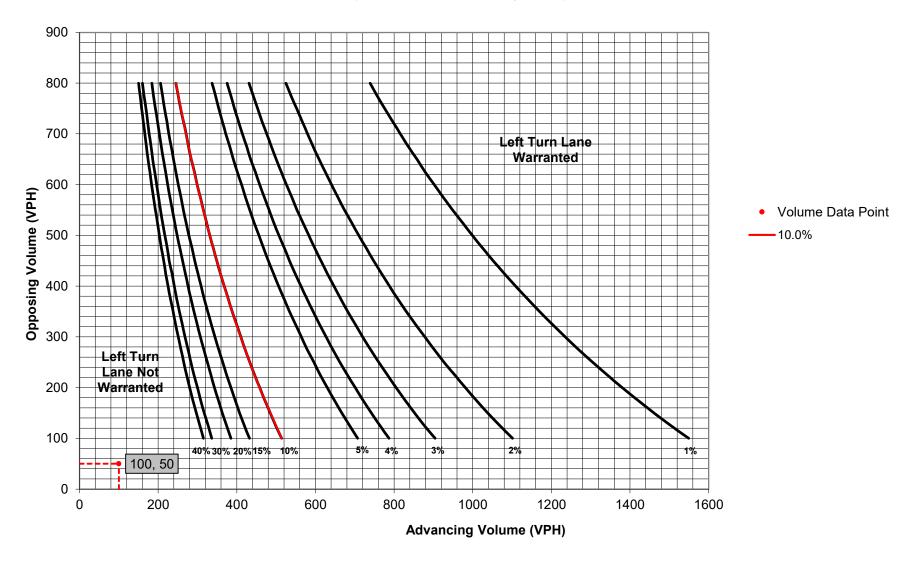
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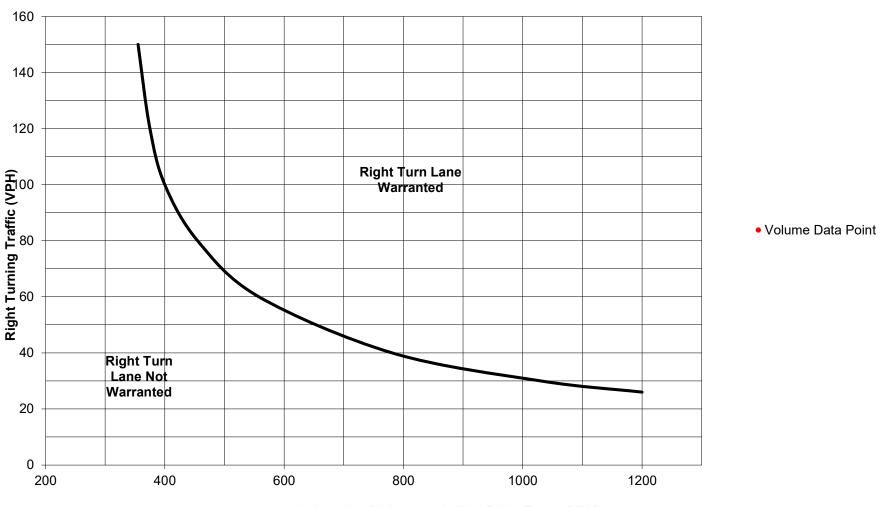
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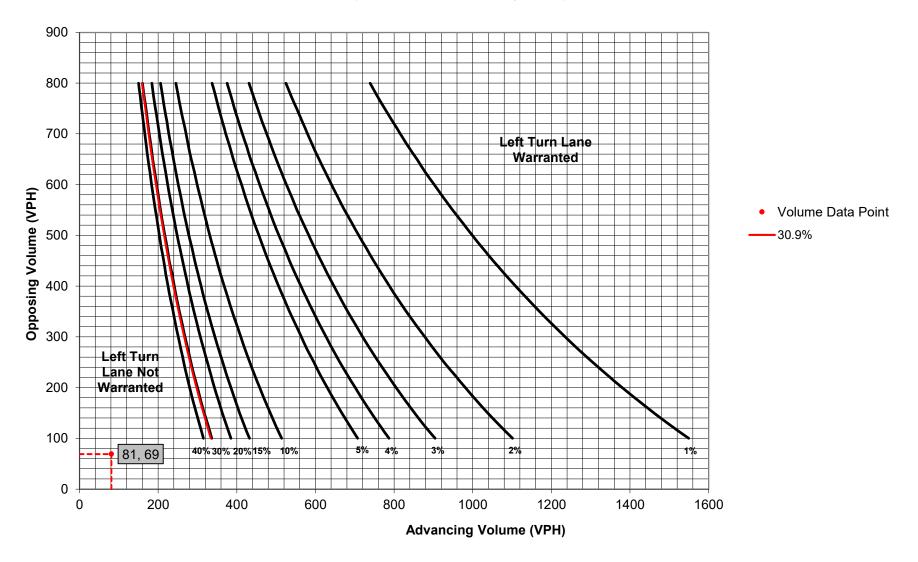
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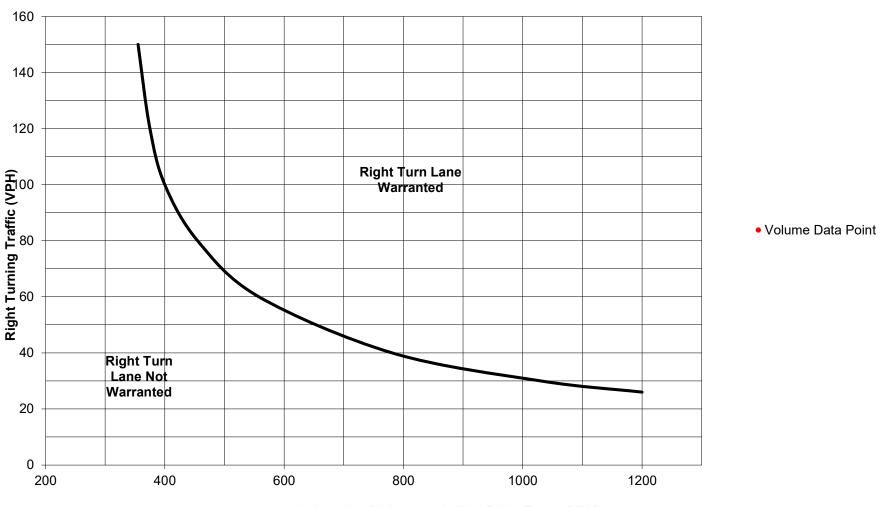
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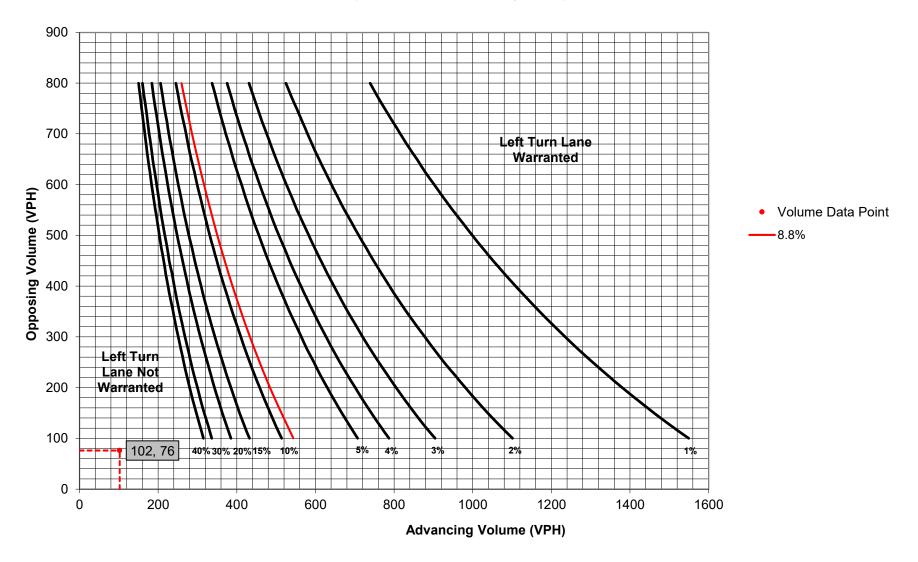
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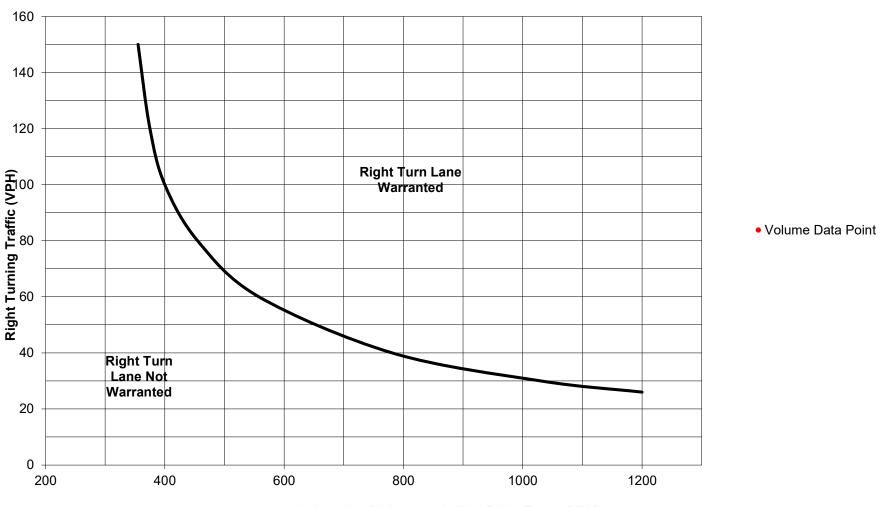
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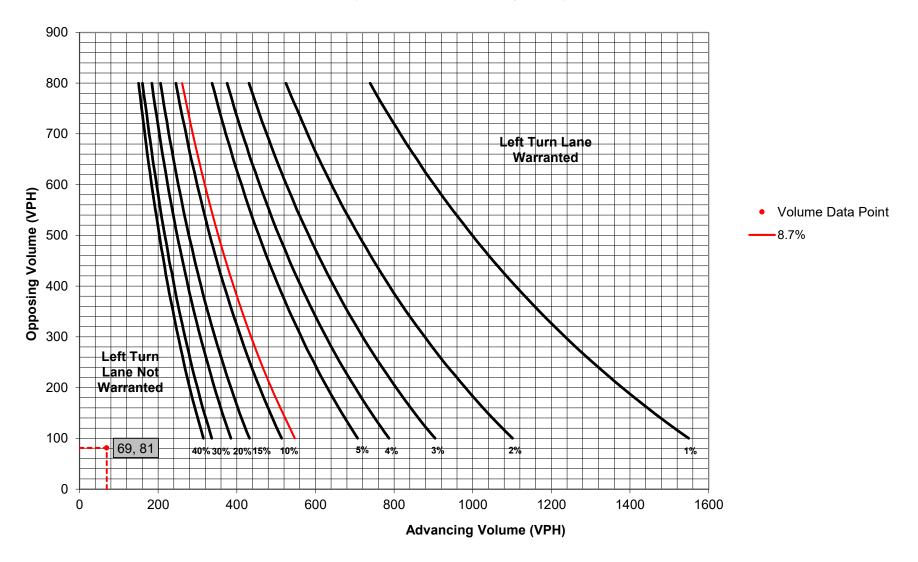
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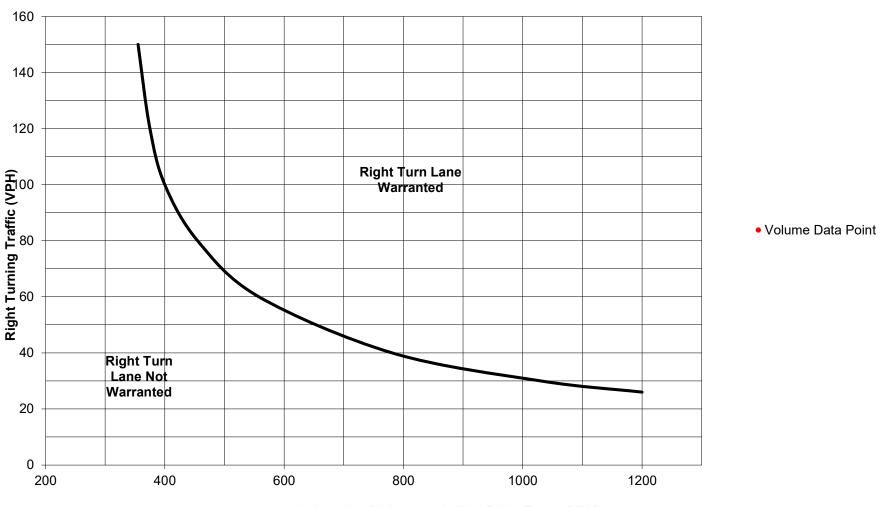
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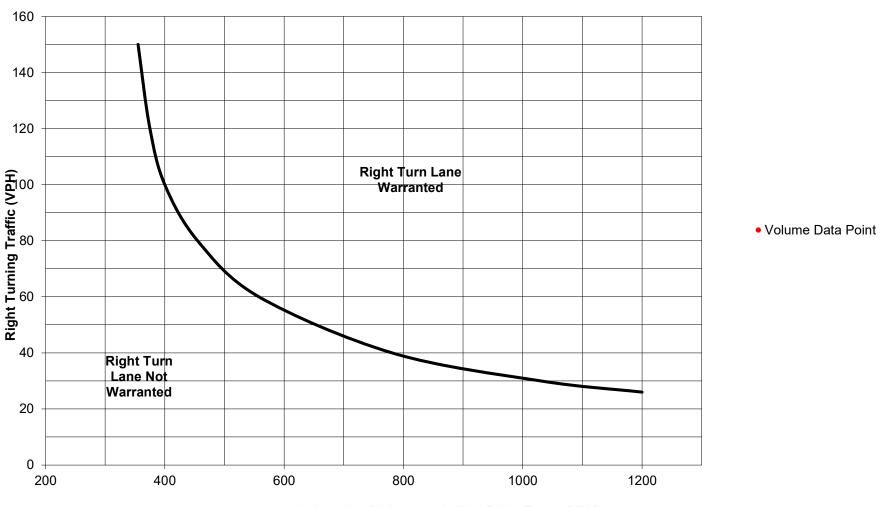
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