

ENGINEERING AND TRAFFIC STUDY FOR RESTRICTIONS AS TO WEIGHT, SIZE, KIND OR CLASS, OR TYPE OF LOAD BASED ON HIGHWAY, BRIDGE, OR TRAFFIC CONDITIONS

PLEASE TYPE OR PRINT ALL INFORMATION IN BLUE OR BLACK INK


pennsylvania
 DEPARTMENT OF TRANSPORTATION
 www.dot.state.pa.us

NOTE: TE-109 FORM IS TO BE COMPLETED AND APPROVED BY A PROFESSIONAL ENGINEER

A - LOCATION INFORMATION

COUNTY:	MUNICIPALITY:
STREET NAME:	
LOCAL ROAD #:	STATE ROAD #:
POSTED SPEED LIMIT (PROVIDE SPEED LIMIT RANGE IF VARIES):	ADT (PROVIDE ADT RANGE IF VARIES):
RESTRICTED BETWEEN: SEGMENT: OFFSET:	TO SEGMENT: OFFSET:
LOCATION:	TO LOCATION:

B - REFERENCE INFORMATION

REFERENCE: Chapter 212	SECTION(S): 212.117(a), (b), (c), (d)
REFERENCE: MUTCD	SECTION(S): 2B.49
REFERENCE: PUB 46	SECTION(S): Chapters 2.4, 11.7.2, and 11.7.3
REFERENCE: Vehicle Code Title 75 Pa. C.S.	SECTION(S): § 4902(a), (b) and 6109(a)(7)(13)
REFERENCE: PA Code Title 67 Pa. C.S.	SECTION(S): Chapters 189, 191, and 193
REFERENCE: PUB 23	SECTION(S): Chapter 15.2
REFERENCE: PUB 238	SECTION(S): Chapter 4
REFERENCE: BRIDGE MGMT. SYSTEM	SECTION(S): Items 4A02, 4A10, 4A15, VP02, VP03, VP04, VP05

C - STUDY ELEMENTS
FROM PUB 212 APPENDIX:

- | | | |
|---|---|---|
| <input type="checkbox"/> Crash Analysis (1) | <input type="checkbox"/> Pavement Analysis (11) | <input type="checkbox"/> Traffic Volumes (20) |
| <input type="checkbox"/> Geometric Review (8) | <input type="checkbox"/> Speed Data (17) | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Past Experience (10) | <input type="checkbox"/> Structural Analysis (18) | |

D - ATTACHMENTS LISTING
CHECK THOSE THAT APPLY AND ATTACH TO THIS FORM IN THE ORDER LISTED BELOW:

<input type="checkbox"/> 1. 10-Day Response Letter	<input type="checkbox"/> 8. Crash Rate	<input type="checkbox"/> 15. STAMPP Identification Data
<input type="checkbox"/> 2. Letter or Memo Requesting Study	<input type="checkbox"/> 9. Collision Diagram Plot	<input type="checkbox"/> 16. Speed Limit
<input type="checkbox"/> 3. Location Map	<input type="checkbox"/> 10. Speed Study	<input type="checkbox"/> 17. Traffic Signal Permit Plan
<input type="checkbox"/> 4. Straight Line Diagram	<input type="checkbox"/> 11. Warrant Analysis	<input type="checkbox"/> 18. Structural Analysis
<input type="checkbox"/> 5. Photographs	<input type="checkbox"/> 12. Multi-Way Stop or Truck Restriction Worksheet	<input type="checkbox"/> 19. Other _____
<input type="checkbox"/> 6. Field View Notes Drawing or Condition Diagram	<input type="checkbox"/> 13. Pavement Analysis	
<input type="checkbox"/> 7. Crash Extract	<input type="checkbox"/> 14. Traffic/Pedestrian Volumes	

**Confidential - Traffic Engineering and Safety Study
 (For Department Use Only)**

This document is the property of the Commonwealth of Pennsylvania, Department of Transportation. The data and information contained herein are part of a traffic engineering and safety study. This safety study is only provided to those official agencies or persons who have responsibility in the highway transportation system and may only be used by such agencies or persons for traffic safety related planning or research. The document and information are confidential pursuant to 75 Pa. C.S.3754 and 23 U.S.C. 409 and may not be published, reproduced, released or discussed without the written permission of the Pennsylvania Department of Transportation.

E - SITE OBSERVATIONS

OPERATIONAL CHECKLIST:

1. Do obstructions block a driver's view of pedestrians or approaching vehicles? YES NO N/A
2. Do drivers respond correctly to signals, signs, or other traffic control devices? YES NO N/A
3. Is there evidence of crashes (*skid marks, property damage, tree/bush damage, broken glass/vehicle parts, etc.*)? YES NO N/A
4. Are there violations of parking or other traffic regulations? YES NO N/A
5. Do drivers appear confused about routes, street names, or other guidance information? YES NO N/A
6. Have you observed the location during peak hours for volume, crash evidence, and traffic operations? . . . YES NO N/A
7. Are there traffic flow deficiencies or traffic conflict patterns associated with turning movements? YES NO N/A
8. Are there significant delays and/or congestion? YES NO N/A
9. Are there vehicle/pedestrians conflicts? YES NO N/A
10. Are there other traffic flow deficiencies or traffic conflict patterns? YES NO N/A

PHYSICAL CHECKLIST:

1. Can sight obstructions be removed or lessened? YES NO N/A
2. Do the street alignments or widths adequately accommodate the type of traffic using the roadway? YES NO N/A
3. Are curb radii adequate for turning vehicles? YES NO N/A
4. Are pedestrian crosswalks properly located? YES NO N/A
5. Does the usefulness, message, size, and replacement of the traffic signs conform to standards? YES NO N/A
6. Does the placement, visibility, glare, number of signal heads, and timing of the traffic signals conform to standards? YES NO N/A
7. Does the location of the pavement markings conform to standards? YES NO N/A
8. Is channelization (islands or pavement markings) adequate for reducing conflict areas, separating traffic flows, and defining movements? YES NO N/A
9. Does the existing legal parking layout affect sight distance for through or turning vehicles? YES NO N/A
10. Does the pavement condition display any signs of base pushing, cross section deterioration, surface failure (potholes, washboard, slick surface, etc.), or shoulder damage? YES NO N/A
11. Does the highway have adequate turning radii, horizontal width, or under clearance? YES NO N/A

F - SITE DATA

DATE DATA COLLECTED:	PERSON CONDUCTING STUDY:	TITLE:
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HIGHWAY RESTRICTION: THIS RESTRICTION IS BEING PLACED FOR THE REASON(S) INDICATED:

(Non-applicable criteria shall be indicated by N.A. in the space provided.)

- Geometric Review - The highway has inadequate turning radii, horizontal width, or under clearance at one or more locations and certain vehicle classes, loads or sizes should be prohibited.
- Past Experience- An analysis of highways under similar climatic conditions indicated that certain weight vehicles should have been or should be prohibited from the highway.
- Pavement Analysis- A pavement analysis and/or engineering judgement indicated either existing physical deterioration due to heavy vehicle use or expected future heavy vehicle use requires that certain weight vehicles be prohibited.

Pavement Type: _____ Thickness: _____

General Condition: _____ Adequacy of Drainage: _____

Base Pushing: _____ Cross Section Deterioration: _____

Moderate/Severe Fatigue Failure of Surface: _____ Shoulder Damage: _____

Other: _____

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F - SITE DATA (CONTINUED)

Traffic Generators- One or more of the following traffic generators exits or is in the planning and/or development stage and can only be reached by this road:

- Coal Strip Mining Horizontal Well (i.e. Marcellus Shale) Vertical Gas Wells Water Withdrawal
- Quarry Operation Manufacturing or Assembly Plant Shopping Mall Water Treatment Facility
- Warehouse Trucking Terminal Logging
- Other _____

Since pavement analysis, engineering judgement and/or past experiences of like or similar roadways have indicated that certain weight vehicles have or are likely to seriously damage the roadway and/or shoulders, it is likely that one or more of the following type of damage may be incurred:

Base Pushing: _____ Cross Section Deterioration: _____

Moderate/Severe Fatigue Failure of Surface: _____ Shoulder Damage: _____

Other: _____

EXISTING BRIDGE RESTRICTION AS PER PUBLICATION 238 (See Note Below):

Does the bridge have poor alignment, or substandard horizontal or vertical clearance? YES NO N/A

(NOTE: All bridge analysis and restrictions are conducted by the Bridge Unit. Contact District Bridge Unit for verification.)

G - REMARKS

Empty box for remarks.

H - ENGINEERING JUDGEMENT

Empty box for engineering judgement.

I - APPROVAL

<p>CONDUCTED & APPROVED BY PROFESSIONAL ENGINEER:</p> <p>NAME (PRINT): _____</p> <p>TITLE: _____ DATE: _____</p> <p>SIGNATURE: _____</p>	<p>PROFESSIONAL ENGINEER SEAL:</p>
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