

## **Organization of a Traffic Impact Analysis Report**

### **1) Introduction and Summary**

- a) Purpose of report and study objectives
- b) Executive Summary
  - i) Site location and study area
  - ii) Description of the proposed development
  - iii) Principal findings
  - iv) Conclusions
  - v) Recommendations

### **2) Background Information: Proposed Development (Site and Nearby)**

- a) List of all non-existent transportation improvements assumed in the analysis
- b) Description of on-site development
  - i) Map of site location
  - ii) Description of the parcel
  - iii) General terrain features
  - iv) Location within the jurisdiction and region
  - v) Comprehensive Plan recommendations for the subject property
  - vi) Current or proposed zoning of the subject property
- c) Description of geographic scope and limits of study area \*
- d) Plan at an engineering scale of the existing and proposed site uses
- e) Description and map or diagram of nearby uses, including parcel zoning
- f) Description and map or diagram of existing roadways
- g) Description and map or diagram of programmed improvements to roadways, intersections, and other transportation facilities within the study area

### **3) Analysis of Existing Conditions**

- a) Collected daily and peak hour of the generator traffic volumes, tabulated and presented on diagrams with counts provided in an appendix \*
- b) Analyses for intersections and roadways identified by VDOT \*
  - i) Delay and Level of Service (LOS) are tabulated and LOS is presented on diagrams for each lane group
- c) When the type of development proposed would indicate significant potential for walking, bike or transit trips either on- or off-site, analyses of pedestrian and bicycle facilities, and bus route(s) and segment(s), tabulated and presented on diagrams, if facilities or routes exist \*
- d) Speed Study (if requested by VDOT)
- e) Crash history near site (if requested by VDOT)
- f) Sight distance (if requested by VDOT)

### **4) Analysis of Future Conditions Without Development**

- a) Description of and the justification for the method and assumptions used to forecast future traffic volumes \*

b) Analyses for intersections and roadways as identified by VDOT \*

i) Delay and Level of Service (LOS) are tabulated and LOS is presented on diagrams for each lane group

c) When the type of development proposed would indicate significant potential for walking, bike or transit trips either on- or off-site, analyses of pedestrian and bicycle facilities, and bus route(s) and segment(s) tabulated and presented on diagrams, if facilities or routes exist or are planned \*

**5) Trip Generation**

a) Site trip generation, with tabulated data, broken out by analysis year for multi-phase developments, and including justification for deviations from ITE rates, if appropriate

b) Description and justification of internal capture reductions for mixed use developments and pass-by trip reductions, if appropriate, including table of calculations used

**6) Site Traffic Distribution and Assignment**

a) Description of methodology used to distribute trips, with supporting data

b) Description of the direction of approach for site generated traffic and diagrams showing the traffic assignment to the road network serving the site for the appropriate time periods

**7) Analysis of Future Conditions With Development**

a) Forecast daily and peak hour of the generator traffic volumes on the highway network in the study area, site entrances and internal roadways, tabulated and presented on diagrams \*

b) Analyses for intersections and roadways identified by VDOT \*

i) Delay and Level of Service (LOS) are tabulated and LOS is presented on diagrams for each lane group

c) When the type of development proposed would indicate significant potential for walking, bike or transit trips either on- or off-site, analyses of pedestrian and bicycle facilities, and bus route(s) and segment(s) tabulated and presented on diagrams, if facilities exist or are planned \*

**8) Recommended Improvements**

a) Description and diagram of the location, nature, and extent of the proposed improvements, with preliminary cost estimates as available from VDOT

b) If travel demand management (TDM) measures are proposed, description of methodology used to calculate the effects of TDM measures with supporting data

c) Analyses for all proposed and modified intersections in the study area under the forecast and site traffic \*

i) Delay and Level of Service (LOS) are tabulated and LOS presented on diagrams for each lane group

ii) For intersections expected to be signalized, MUTCD Signal Warrant analysis or ITE Manual for Traffic Signal Design, as determined by VDOT, presented in tabular form

d) When the type of development proposed would indicate significant potential for walking, bike or transit trips either on- or off-site, analyses of pedestrian and bicycle facilities, and bus route(s) and segment(s) tabulated and presented on diagrams, if facilities or routes exist or are planned \*

**9) Conclusions**

a) Clear, concise description of the study findings

\* *The level of analysis and information provided depends on site generated peak hour traffic. See page 2 of these forms; 24 VAC 30-155-60.C. Required Elements table..*

## VDOT CHECKLIST

### EVALUATION of the SUBMITTED TRAFFIC IMPACT ANALYSIS

<input checked="" type="checkbox"/>	<b>ITEM PROVIDED OR NOT APPLICABLE (NA)</b>
	<b>Verify Use of Methodology and Standard Assumptions in Regulations (or Changes Approved at Scope of Work Meeting)</b>
	<b>Verify any Additions to Required Elements Approved at Scope of Work Meeting</b>
<input type="checkbox"/>	
	<b>Introduction and Summary</b>
<input type="checkbox"/>	Purpose of report and study objectives
<input type="checkbox"/>	Executive Summary: Site location and study area; description of the proposed development; conclusions; recommendations.
	<b>Background Information</b>
<input type="checkbox"/>	List of all non-existent transportation improvements assumed in the analysis
<input type="checkbox"/>	Map of site location, description of the parcel, general terrain features, and location within the jurisdiction and region.
<input type="checkbox"/>	Comprehensive plan recommendations for the subject property
<input type="checkbox"/>	Current and proposed zoning of the subject property
<input type="checkbox"/>	Description of geographic scope / limits of study area.
<input type="checkbox"/>	Plan at an engineering scale of the existing and proposed site uses.
<input type="checkbox"/>	Description and map or diagram of nearby uses, including parcel zoning.
<input type="checkbox"/>	Description and map or diagram of existing roadways.
<input type="checkbox"/>	Description and map or diagram of programmed improvements to roadways, intersections, and other transportation facilities within the study area.
	<b>Analysis of Existing Conditions</b>
<input type="checkbox"/>	Collected daily and peak hour of the generator traffic volumes, tabulated and presented on diagrams with counts provided in an appendix.
<input type="checkbox"/>	Analyses for intersections and roadways identified by VDOT. Delay and Level of Service (LOS) are tabulated and LOS is presented on diagrams for each lane group.

<input checked="" type="checkbox"/>	<b>ITEM PROVIDED OR NOT APPLICABLE (NA)</b>
<input type="checkbox"/>	When the type of development proposed would indicate significant potential for walking, bike or transit trips either on- or off-site, analyses of pedestrian and bicycle facilities, and bus route(s) and segment(s), tabulated and presented on diagrams, if facilities or routes exist.
<input type="checkbox"/>	Speed Study
<input type="checkbox"/>	Crash history near site
<input type="checkbox"/>	Sight distance
<b>Analysis of Future Conditions Without Development</b>	
<input type="checkbox"/>	Description of and justification for the method and assumptions used to forecast future traffic volumes.
<input type="checkbox"/>	Analyses for intersections and roadways as identified by VDOT. Delay and Level of Service (LOS) are tabulated and LOS is presented on diagrams for each lane group.
<input type="checkbox"/>	When the type of development proposed would indicate significant potential for walking, bike or transit trips either on- or off-site, analyses of pedestrian and bicycle facilities, and bus route(s) and segment(s) tabulated and presented on diagrams, if facilities or routes exist or are planned.
<b>Trip Generation</b>	
<input type="checkbox"/>	Site trip generation, with tabulated data, broken out by analysis year for multi-phase developments, and including justification for deviations from ITE rates, if appropriate.
<input type="checkbox"/>	Description and justification of internal capture reductions for mixed use developments and pass-by trip reductions, if appropriate, including table of calculations used.
<b>Site Traffic Distribution and Assignment</b>	
<input type="checkbox"/>	Description of methodology used to distribute trips, with supporting data.
<input type="checkbox"/>	Description of the direction of approach for site generated traffic and diagrams showing the traffic assignment to the road network serving the site for the appropriate time periods.
<b>Analysis of Future Conditions With Development</b>	
<input type="checkbox"/>	Forecast daily and peak hour of the generator traffic volumes on the highway network in the study area, site entrances and internal roadways, tabulated and presented on diagrams.
<input type="checkbox"/>	Analyses for intersections and roadways identified by VDOT. Delay and Level of Service (LOS) are tabulated and LOS presented on diagrams for each lane group.
<input type="checkbox"/>	When the type of development proposed would indicate significant potential for walking, bike or transit trips either on- or off-site, analyses of pedestrian and bicycle facilities, and bus route(s) and segment(s) tabulated and presented on diagrams, if facilities exist or are planned.

<input checked="" type="checkbox"/>	<b>ITEM PROVIDED OR NOT APPLICABLE (NA)</b>
	<b>Recommended Improvements</b>
<input type="checkbox"/>	Description and diagram of the location, nature, and extent of proposed improvements, with preliminary cost estimates as available from VDOT.
<input type="checkbox"/>	Description of methodology used to calculate the effects of travel demand management (TDM) measures, if proposed, with supporting data.
<input type="checkbox"/>	Analyses for all proposed and modified intersections in the study area under the forecast and site traffic. Delay, and Level of Service (LOS) are tabulated and LOS presented on diagrams for each lane group. For intersections expected to be signalized, MUTCD Signal Warrant analysis or ITE Manual for Traffic Signal Design, as determined by VDOT, presented in tabular form.
<input type="checkbox"/>	When the type of development proposed would indicate significant potential for walking, bike or transit trips either on- or off-site, analyses of pedestrian and bicycle facilities, and bus route(s) and segment(s) tabulated and presented on diagrams, if facilities or routes exist or are planned.
	<b>Conclusions</b>
<input type="checkbox"/>	Clear, concise description of the study findings.

NOTES: \_\_\_\_\_

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SIGNED: \_\_\_\_\_  
 VDOT Representative

DATE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_  
 VDOT Representative