



# **INDIANA DEPARTMENT OF TRANSPORTATION**

## **Driveway Permit Manual**

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## PREFACE

Physical obstructions and influence on traffic caused by the presence and use of access driveways to property along the highways make it necessary that they be controlled for the safe movement of normal highway traffic. This Manual is designed to provide for a uniform approach to the orderly and safe movement of traffic into and out of private properties adjacent to Indiana Highways.

The geometrics and procedures outlined in this Manual and their applications are to be used in conjunction with field investigation and engineering judgment; however, these approaches are not a substitute for the exercise of reasonable care on the part of the highway user. This Manual should not be construed as an instrument to mandate the use of any procedures at a particular location. It is not intended to specify as a legal requirement any maximum or minimum standards as to size, number or location of driveways.

Any reference to requirements or standards are considered to be discretionary on the part of INDOT. Any reference to distances or measurements or locations as referenced in this manual will be construed to be typical in nature and intend to be used only as a standard for field applications.

Driveway geometrics, materials, and specifications as per the current Indiana Design Manual ([http://in.gov/indot/design\\_manual/design\\_manual\\_2013.htm](http://in.gov/indot/design_manual/design_manual_2013.htm)) were current at the time of this publication but should be checked for revisions and changes that may have occurred. Users should consult design memoranda for revision details and policy updates. (<http://www.in.gov/dot/div/contracts/standards/memos/memos.html> )

The present edition is a general guideline. The applicant should be aware that the Indiana Department of Transportation (INDOT) reviews each driveway on an individual basis.

Traffic information in the form of a [Traffic Impact Study](#) (TIS) or [Traffic Operational Analysis](#) (TOA) is typically needed before design begins. Consult the appropriate INDOT District Permits Department to determine the appropriate scope of work required.

INDOT values each individual's civil rights and wishes to provide equal opportunity and equitable service for the citizens of this state. As a recipient of federal funds, INDOT is required to conform to Title VI of the Civil Rights Act of 1964 (Title VI) and all related statutes, regulations, and directives, which provide that no person will be excluded from participation in, denied benefits of, or subjected to discrimination under any program or activity receiving federal financial assistance from the U.S. Department of Transportation (DOT) on the grounds of race, color or national origin. Pursuant to Title VI, INDOT is required to include certain nondiscrimination language and assurances into its agreements, which includes permits and it is INDOT's responsibility to ensure the assurances of nondiscrimination are properly included and executed as part of permits issued. See [APPENDIX: CLAUSES FOR TRANSFER OF REAL PROPERTY](#) in this manual.

Also See 23 CFR 200 <https://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0200.htm>

## FOREWORD

This publication is presented for the purpose of explaining the application rules for access to state highways and to help the applicant navigate through the Driveway permit process. It also includes the legal basis for the exercise of this authority and explains the procedures to be followed when applying for a driveway permit.

State law requires the public to obtain permission from the governmental unit having jurisdiction over a street or highway to construct inside of the right-of-way line. INDOT has jurisdiction over the Indiana state highway system and has established a driveway permit process to be followed by all applicants.

The administrative requirements associated with the driveway access permit application process for all state highways are governed by the promulgated rules of Title 105, Article 7 of the Indiana Administrative Code (IAC): Permits for Highways (see [Appendix A](#)).

The purpose of access control is to protect the state highway mainline through-traffic from indiscriminate conflicting movements, promote safety, and maintain mobility, along the roadside.

The policies, standards, and procedures stated herein have been established to achieve traffic safety on state and federal highways throughout the state. Other governmental units may wish to use this material as a guideline.

Application for a driveway permit must be made via the [INDOT Electronic Permit System \(EPS\)](#). Contact your INDOT District Office for assistance if needed.

The 2018 Driveway Permit Manual has been completely revised. All sections have been updated using INDOT subject matter experts. All figures, tables, and drawings have been updated. All technical information references the most up-to-date rules and standards. Where practicable, references have been linked to the appropriate source. Flow diagrams for each type of driveway permit have been added to aid applicants in successfully completing their specific driveway permit.



## GENERAL

Regulation and control of driveway connections are necessary to provide efficient and safe operation on highways and to utilize the full potential of highway investment. Landowners adjacent to highways have certain rights of access consistent with their needs.

INDOT is authorized to determine and establish such requirements and restrictions for driveway approaches as may be necessary to provide for the drainage of the highway, preservation of the highway and the safety and convenience of traffic on the highway. An electronic permit application will be considered by INDOT and, if in accordance with properly established regulations and requirements, a permit may be granted subject to appropriate conditions and provisions contained therein. All work on the permit application will be performed to the satisfaction of INDOT.

## PUBLIC ROADS

For driveway approaches to residential subdivisions, industrial parks, commercial shopping malls, and similar developments where dedication as a public road right-of-way is to be made, the design should conform to the [Indiana Design Manual](#). The American Association of State Highway and Transportation Officials' (AASHTO) "A Policy on Geometric Design of Highways and Streets" more commonly known as the Green Book should be used as an additional reference. The current Green Book must be obtained directly from AASHTO. [INDOT Standard Drawings](#), Section 610 for public road approaches, should also be reviewed for design requirement applicability. The INDOT [Access Management Guide](#) describes how and when to use a wide range of access management techniques to address common traffic and access related problems. The current Indiana Design Manual is the source document from which technical information was extracted to produce this document and therefore, in all cases, the [Indiana Design Manual](#) should be considered the reference standard for all design considerations.

## SECTION 1: DEFINITION OF TERMS

In the interpretation of these regulations, the word "will" is to be interpreted as being mandatory. The words "should" "desirable" or words of similar importance are to be interpreted as being the recommendations of INDOT and, where the content so indicates, as denoting a factor or principle to be considered by the applicant in determining the location or construction of a driveway on state highway right-of-way before a permit is issued.

In as much as the shoulders of all highways will not be surfaced, driveways, for the purpose of said definitions, are constructed to extend to the outside edge of the traveled way of any highway.

### **Acceleration Lane:**

A speed change lane, including taper, for the purpose of enabling a vehicle entering a roadway to increase its speed to a rate at which it can safely merge with through traffic.

### **Access:**

A location that allows vehicular and/or pedestrian traffic to cross the highway right-of-way line and is positioned at the connection of a driveway with the approach at the right-of-way line.

### **Access, Control of:**

The condition where vehicular traffic movement from abutting property to the highway is fully or partially controlled.

### **Additional Disclosure Form:**

A document used to record all persons with an interest in the land and the project including mortgages, lessees, owners of option, lien holders, and holders of other encumbrances- who must join the applicant in the application.

(<http://www.in.gov/indot/files/23237.pdf> )

### **Agreement to Execute Access Control Document:**

A document that conveys the rights to INDOT for the balance of property frontage owned by the applicant. The document relinquishes future rights of access along the highway right-of-way other than openings allowed to remain and specifically identified on the approved permit plans. [http://www.in.gov/indot/files/limited\\_access.pdf](http://www.in.gov/indot/files/limited_access.pdf)

**Applicant:**

A person, partnership, company, corporation, association, or agency making application for a permit to perform work on an approach.

**Application:**

A formally prepared request for a permit that is presented by an applicant on an electronic or paper permit form to INDOT seeking permission to perform work on highway right-of-way.

**Approach:**

A way or place improved for vehicular or pedestrian traffic on the highway right-of-way that joins the pavement edge of the highway with a driveway or pedestrian walkway.

**Auxiliary Lane:**

A portion of the roadway adjoining the traveled way for parking, speed changing, turning storage for turning, weaving, truck climbing or for other purposes. For example, a right turn lane.

**Average Annual Daily Traffic (AADT):**

The total traffic volume passing a point or segment of a highway facility, in both directions, for one year, divided by the number of days in that year.

**Average Daily Traffic (ADT):**

The total traffic volume during a given time period (in whole days), greater than one day and less than one year, divided by number of days in that time period.

**Buffer Area (Border Area):**

The area between the outside edge of shoulder or curb and the right-of-way line.

**Channelizing Island:**

An area within the roadway not for the vehicular movement; designed to control and direct specific movements of traffic to definite channels. The islands may be defined by paint, curbs, or other devices.

**Commercial Approach:**

An approach that joins the highway with a driveway to private property used for commercial purposes and to public property.

**Conflict:**

An event involving two or more moving vehicles approaching each other in a traffic flow situation in such a way that a traffic collision would ensue unless at least one of the vehicles performs an emergency maneuver.

**Conflict Point (Conflict Area):**

An area where intersecting traffic either merges, diverges, or crosses.

**Consultant Consent Form:**

A document that authorizes a consultant to submit documents and plans necessary for the applicant to obtain a permit from the Indiana Department of Transportation.

[http://www.in.gov/indot/files/consultant\\_consent.pdf](http://www.in.gov/indot/files/consultant_consent.pdf)

**Corner Clearance:**

The distance from an intersection of a public or private road to the nearest access connection, measured from the closest edge of the pavement of the intersection road to the closest edge of pavement of the connection along the traveled way.

**Crossover:**

A paved or graded crossing in the highway median that allows vehicles to cross or to turn across the highway.

**Deceleration Lane:**

A speed changing lane, including taper, for the purpose of enabling a vehicle to leave the through traffic lane at a speed equal to or slightly less than the speed of traffic in the through lane and to decelerate to a stop or to execute a slow speed turn.

**Department:**

INDOT acting directly or through its duly authorized officers and agents.

**Design Hour Volume (DHV):**

The traffic volume for the design hour in the peak direction of flow, usually a forecast of the relevant peak hour volume, in vehicles per hour (VPH).

**Driveway:**

An access point abutting INDOT right-of-way that is used for vehicles to access a commercial driveway, public road or private driveway.

**Driveway Angle:**

The angle between the highway centerline and the driveway centerline measured in a clockwise direction.

**Driveway Approach Width:**

The maximum length parallel to the highway that can be used practicably by a vehicle to perform a circular maneuver that is tangent to paths that are parallel to the highway before turning and parallel to the driveway after turning.

**Driveway Flare:**

A triangular pavement surface that transitions the driveway and the highway pavement for facilitating turning movements.

**Driveway Permit Form (via EPS):**

A document that initially is considered the application for a driveway permit and becomes the permit upon approval of the proposed driveway approach work. It contains basic information on the front of the form needed to locate and record the permit work and lists standard general provisions along with driveway permit special provision. The permit should be signed by the owner of the fee simple title.

<http://www.in.gov/indot/2784.htm>

**Driveway Return Radius:**

A circular pavement transition between the driveway and the highway for facilitating turning movements.

**Driveway Permit Special Provisions:**

Special provisions added to private or commercial driveway permits that must be followed.

**Driveway Permit Application Package:**

All necessary documents from applicant needed for review and approval including deed(s) or recorded ALTA survey or plat, 20-year title search, stamped plans, and any special covenants. Traffic impact study or traffic operational analysis is often part of the package.

**Driveway Width:**

The narrowest width of driveway measured perpendicular to the centerline of driveway.

**Egress:**

The exit of vehicular traffic from abutting properties to the highway.

**Electronic Permit System:**

The Electronic Permit System (EPS) can be used to apply for an online permit, pay permit application fees, check the status of a driveway permit application, and provide additional information that may have been requested. <http://www.in.gov/indot/2727.htm>

**Expiration Date:**

The last calendar day that the valid permit is in effect and the date by which the approach must be in compliance with all conditions of the permit.

**Field Approach:**

An approach that joins the highway with a driveway to private property that is vacant, in an unimproved condition, or a farm field.

**Future Traffic Signal Covenant:**

INDOT may require the owner and his/her successors, or assigns or the owner of other lands ("Adjacent Owner") to design and install a traffic signal at the above location when the minimum traffic volume warrants the installation of a traffic signal are met. The traffic signal analysis will be performed in accordance with the Indiana Manual on Uniform Traffic Control Devices. <http://in.gov/dot/div/contracts/design/mutcd/mutcd.html>

**Frontage Width:**

The distance along the highway right-of-way line in front of an abutting property.

**Gradient (Grade):**

The rate or percentage of change in slope either ascending or descending, from or along the highway. It is to be measured along the centerline of the roadway or access.

**Highway:**

A roadway under the jurisdiction of INDOT that is designated as a state route, a US route, or an interstate route.

**Ingress:**

The entrance of vehicular traffic to the abutting properties from a highway.

**Interchange:**

A facility that grade separates intersecting roadways and provides directional ramps for access movements between roadways. The structure and the ramps are considered part of the interchange.

**Issue Date:**

A calendar day that the permit is granted to the applicant.

**Level of Service (LOS):**

LOS is a qualitative stratification of performance measures representing quality of service. There are six levels ranging from A to F. LOS A represents the best operating conditions from the traveler's perspective and LOS F the worst. Roadways are typically designed not to provide LOS A conditions during peak periods but instead to provide some lower LOS that balances individual travelers' desires against society's desires and financial resources. Nevertheless, during low-volume periods of the day, a system element may operate at LOS A.

**Limited-Access Facility:**

A highway or street designed for through traffic, over, from, or to which owners or occupiers of abutting land or other persons have either no right or easement or a limited right or easement of direct access, light, air, or view because their property abuts upon the limited access facility or for any other reason. The highways or streets may be parkways from which trucks, buses, and other commercial vehicles are excluded or freeways open to use by all customary forms of highway and street traffic.



**Maintenance Agreement:**

An agreement between an applicant or owner and INDOT that outlines who takes care of what items associated with the permit. For example, pavement markings or a multi-use path.

**Median:**

The portion of a divided highway separating the traveled way for traffic proceeding in opposite directions.

**Notice:**

A certified letter from INDOT addressed to the owner(s) of the real estate stating that the approach(es) for a driveway(s) emanating from the real estate is unauthorized and providing the approximate location of the approach(es), a statement of any substandard elements of the approach(es), the action to be taken by the owner and the deadline for completing the prescribed action.

**Permit:**

A legal document in which INDOT gives written permission to an applicant after the applicant has applied for driveway access.

**Permit Bond:**

A document used to guarantee that work performed on the right-of-way by the applicant (principal) will be completed as required by conditions and provisions of the permit (<http://www.in.gov/indot/files/41523.pdf>). The bonding company (surety) is bound by the bond to see that the permit is completed satisfactorily should the permittee (principal) fail to perform properly. INDOT prefers that the bond cover the estimated construction cost within the right-of-way plus 25 percent to cover construction variances. The minimum bond accepted will be \$5,000. This document will be notarized.

**Permittee:**

The applicant who receives the issuance of a permit by INDOT.

**Perpetual Easement:**

A recorded document that allows others rights to property (i.e., joint driveways, drainage, utility, etc.) that encumbers the land in perpetuity.

**Private Approach:**

An approach that joins the highway with a driveway to private property having a residence, barn, private garage or other improvements and is ordinarily used only by the owner or occupant of the premises, guests and necessary service vehicles.

**Private Approach Reference Worksheet:**

Customers submitting private driveway permit applications should print and complete the worksheet before logging into EPS. The worksheet will identify and help the customer retrieve all the field information needed to complete the online application.

[http://www.in.gov/indot/files/Private\\_Driveway\\_Worksheet.pdf](http://www.in.gov/indot/files/Private_Driveway_Worksheet.pdf)

**Purchased Limited Access:**

Right-of-way along any highway designated by INDOT to be a limited-access facility and whose access rights have been acquired by INDOT.

**Right of Way:**

All land under the jurisdiction of and whose use is controlled by INDOT.

**Right of Way Permit:**

A permit for work within state right-of-way.

**Property Clearance:**

The distance as measured from the edge of one property to the edge of an adjacent property.

**Shared Use Agreement:**

An agreement for features that are in state right-of-way for items such as drainage, utilities, multi-use paths, and decorative lighting.

**Shoulder:**

That portion of the highway right-of-way contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of roadway base and surface courses. It is measured from the edge of pavement of the traveled way or, if present, auxiliary lane to the intersection of the shoulder and fill or ditch slopes.

**Sight Distance:**

The distance visible to the driver of a passenger vehicle measured along the normal travel path of a roadway to a specified height above the roadway when the view is unobstructed to traffic.

**Storage Length:**

Additional lane footage added to a deceleration lane to store the maximum number of vehicles likely to accumulate during a peak period so as not to interfere with the through travel lanes.

**Title Evidence:**

Documentation in the form of a certified search covering a period of 20 years, current title insurance or certified letter from abstractor or title insurance agent certifying fee simple ownership of property.

**Traffic:**

Pedestrians, ridden or herded animals, vehicles, and other conveyances either singly or together while using any highway for purposes of travel.

**Traffic Control Devices:**

Such devices include, signs, barricades, pavement markings and signalization used to direct traffic in safe and orderly use of the highway.

**Traveled Way:**

The portion of roadway used for the movement of traffic, excluding shoulders and auxiliary lanes.

**Traffic Impact Study (TIS):**

A TIS provides estimated traffic generated from a proposed use(s), along with peak hour estimates and directional distribution to reveal the proposed use(s) impact on a state route(s). A recommendation is part of the study – for example; will a right-turn lane or signal be warranted? INDOT will review and comment on the study and this should be done prior to an application being made in EPS. Contact INDOT to discuss the traffic scope before submitting a TIS or TOA (Traffic Operational Analysis). See Applicant's Guide to Traffic Impact Studies:

[http://www.in.gov/indot/files/Permits\\_ApplicantsGuidetoTrafficImpactStudy\\_2015.pdf](http://www.in.gov/indot/files/Permits_ApplicantsGuidetoTrafficImpactStudy_2015.pdf)  
[See also 105 IAC 7-1.5-1](#)

**Traffic Operational Analysis (TOA):**

A TOA is similar to a detailed TIS. INDOT may determine that the traffic scope may only require a less complex study of traffic factors. A TOA is an abbreviated TIS that focuses on the build-year traffic conditions with and without the proposed development. In contrast, a TIS analyzes both the build and design year traffic conditions. Contact INDOT to discuss the traffic scope before submitting a TIS or TOA. See Applicant's Guide to Traffic Impact Studies:

[http://www.in.gov/indot/files/Permits\\_ApplicantsGuidetoTrafficImpactStudy\\_2015.pdf](http://www.in.gov/indot/files/Permits_ApplicantsGuidetoTrafficImpactStudy_2015.pdf)  
[See also 105 IAC 7-1.5-1](#)

**Turning Radius:**

The radius of an arc that approximates the turning path of a vehicle.

**Unauthorized Approach:**

An approach that has been constructed, reconstructed, altered or modified; that remains incomplete, or has become substandard for any reason, such as change in land use; that is not approved nor authorized to exist in its present condition by INDOT.

**Weaving Maneuvers:**

The crossing of traffic streams moving in the same general direction accomplished by merging and diverging.

## **SECTION 2: TYPES OF DRIVEWAY PERMITS**

Driveway permits are separated into four types: Commercial Major, Commercial Minor, Commercial Sub-minor, and Private. These permit types require specific information appropriate policies, procedures and standards. See Section 5 for approach class descriptions.

### **COMMERCIAL MAJOR DRIVEWAY PERMIT:**

This type of approach connects the highway to the private property used for commercial purposes or to a public property that attracts enough traffic to require auxiliary lane(s), as determined by INDOT. The location for this type can be in either an urban or rural area.

### **COMMERCIAL MINOR DRIVEWAY PERMIT:**

This type of approach connects the highway to private property used for commercial purposes, or to a public property that attracts enough traffic to require auxiliary lane, as determined by INDOT. The location for this type can be in either an urban or a rural area.

### **COMMERCIAL SUB-MINOR DRIVEWAY PERMIT:**

This type of approach connects the highway to private property used for commercial purposes, and which does not attract more than 25 vehicles per day, as determined by INDOT. The location of this type can be in either an urban or rural area.

### **PRIVATE DRIVEWAY PERMIT:**

This type of approach connects the highway to private property having a residence, barn, or private garage, in improved or unimproved condition, used by the owner or occupant of the premises, guests, and necessary service vehicles. The location for this type of driveway can be in either an urban or a rural area.

## SECTION 3: APPLICATION

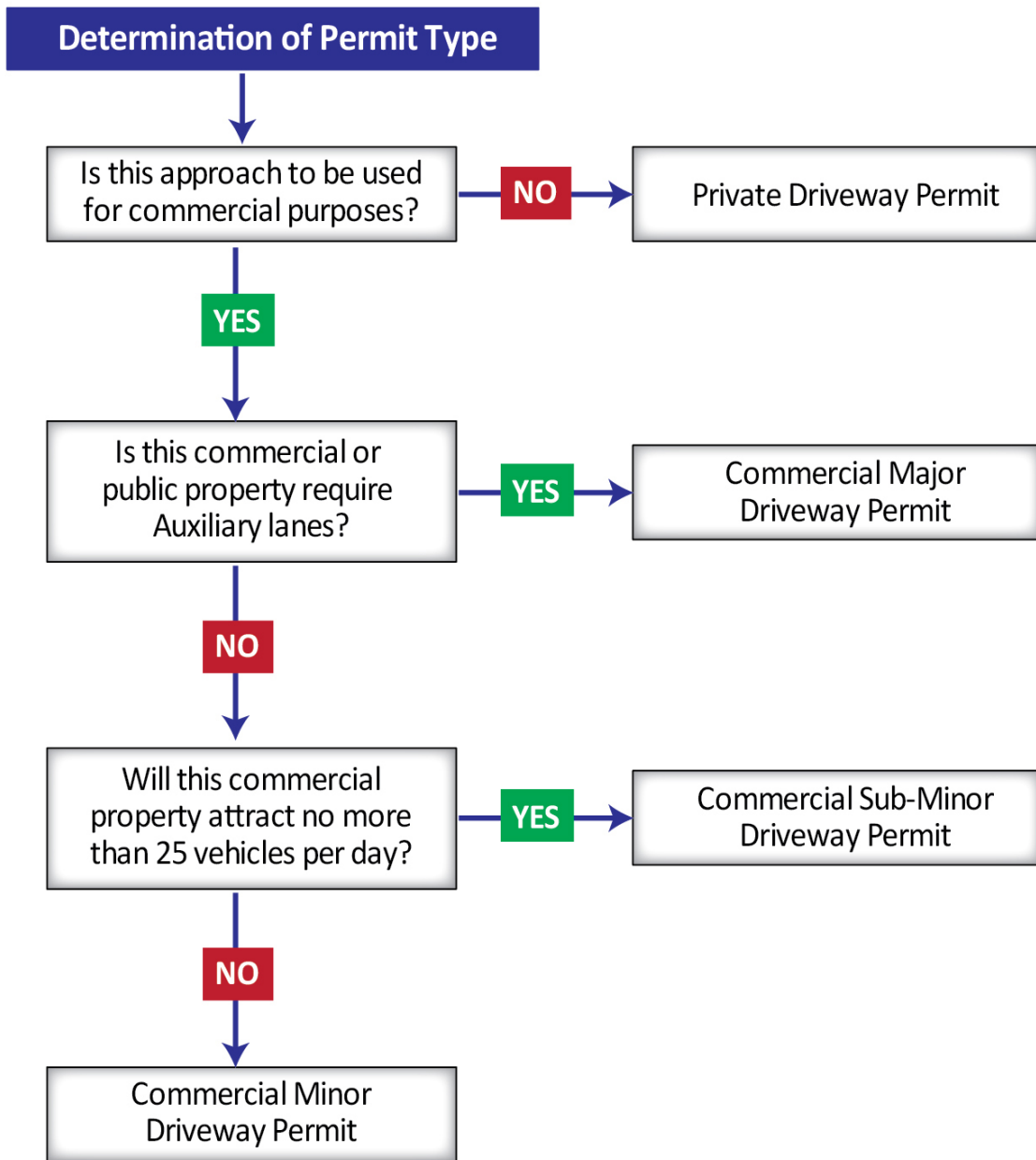
Any person, partnership, company, corporation, association, local municipality or agency intending to construct an access on the state's right-of-way will make an electronic application via the EPS system to the appropriate INDOT District or Department office in the district where the driveway is to be constructed. This permit must be obtained before commencing construction on a driveway within the right-of-way of a state highway.

### APPLICATION REQUIREMENT:

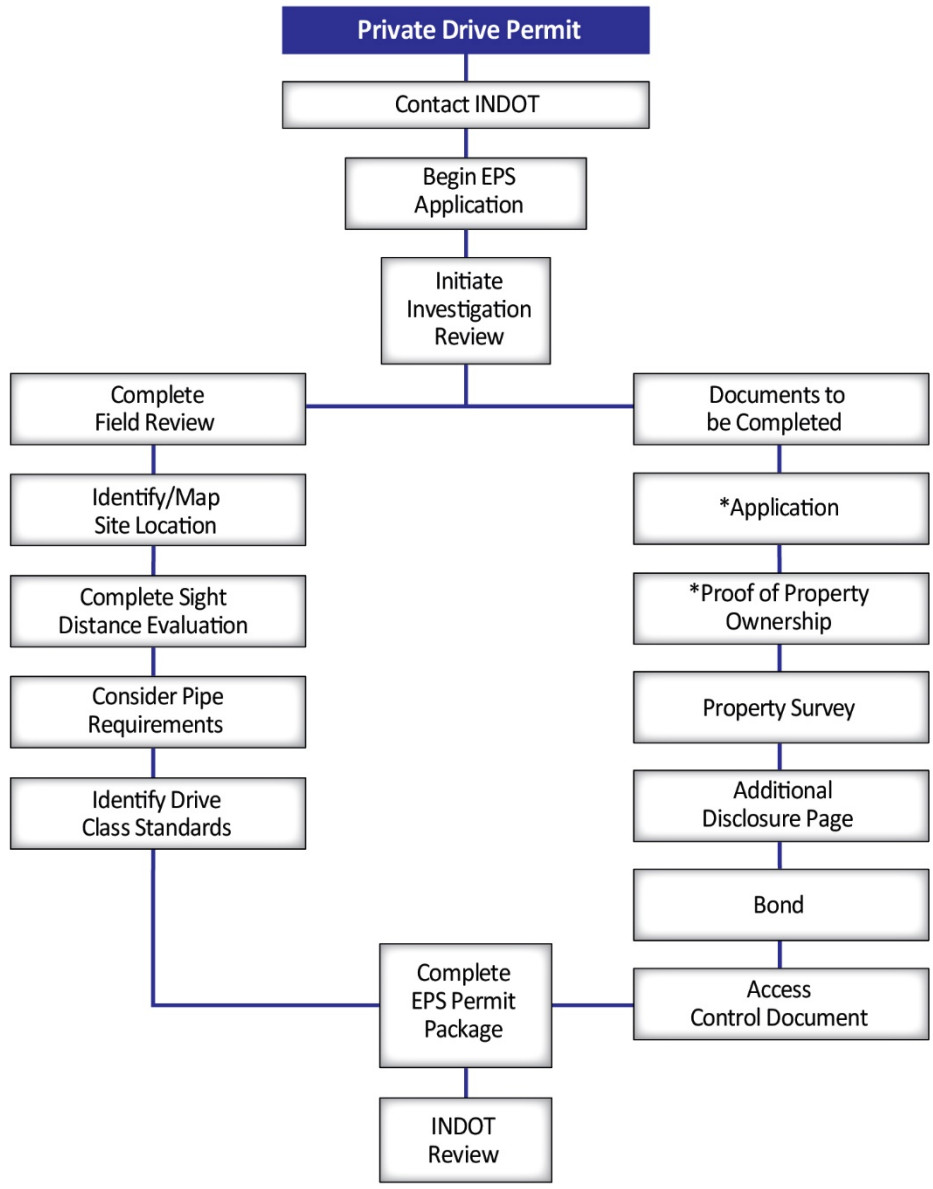
A new driveway permit application will be required when a relocation, alteration or remodeling of an access, approach and/or crossover, or any change in the character of the use of the access approach and/or crossover is proposed. The granting or denial of such application will be governed by the same regulations and judged by the same standards as an application for a permit for an entire new access, approach, and/or crossover.

### APPLICATION PERMIT TYPES:

Application to INDOT will be made via the [Electronic Permit System \(EPS\)](#) as prescribed by INDOT. The appropriate forms, detail, and level of review is dependent upon the type of driveway permit required. The schematic below shows the important process steps for each of the four types of permits. Each of the steps and forms are detailed throughout the Driveway Permit Manual.



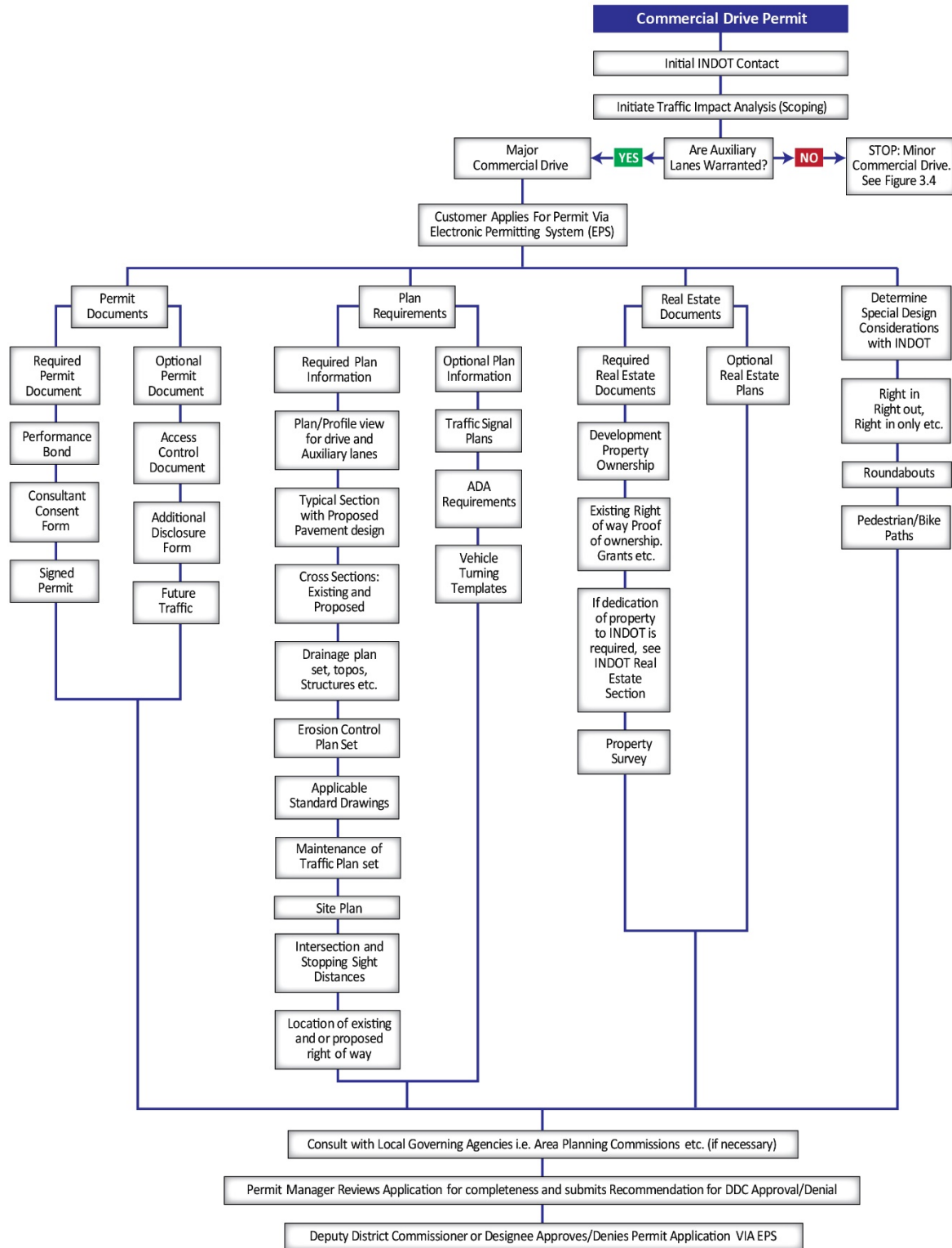
**FIGURE 3.1: PERMIT TYPE DECISION TREE**



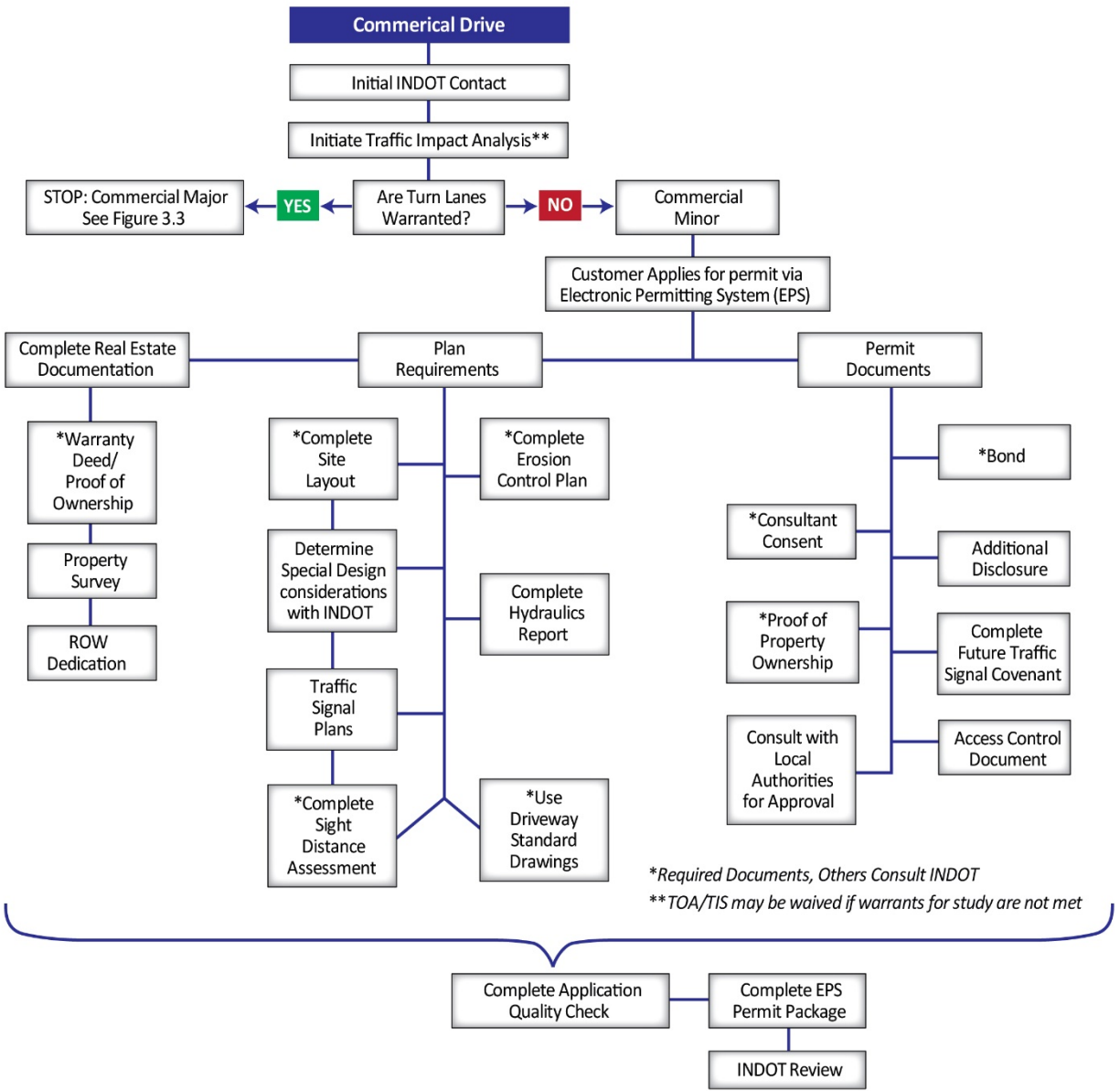
*\*Required Documents, Other Documents to be confirmed with INDOT*

**FIGURE 3.2: PRIVATE DRIVEWAY PERMIT PROCESS FLOW**

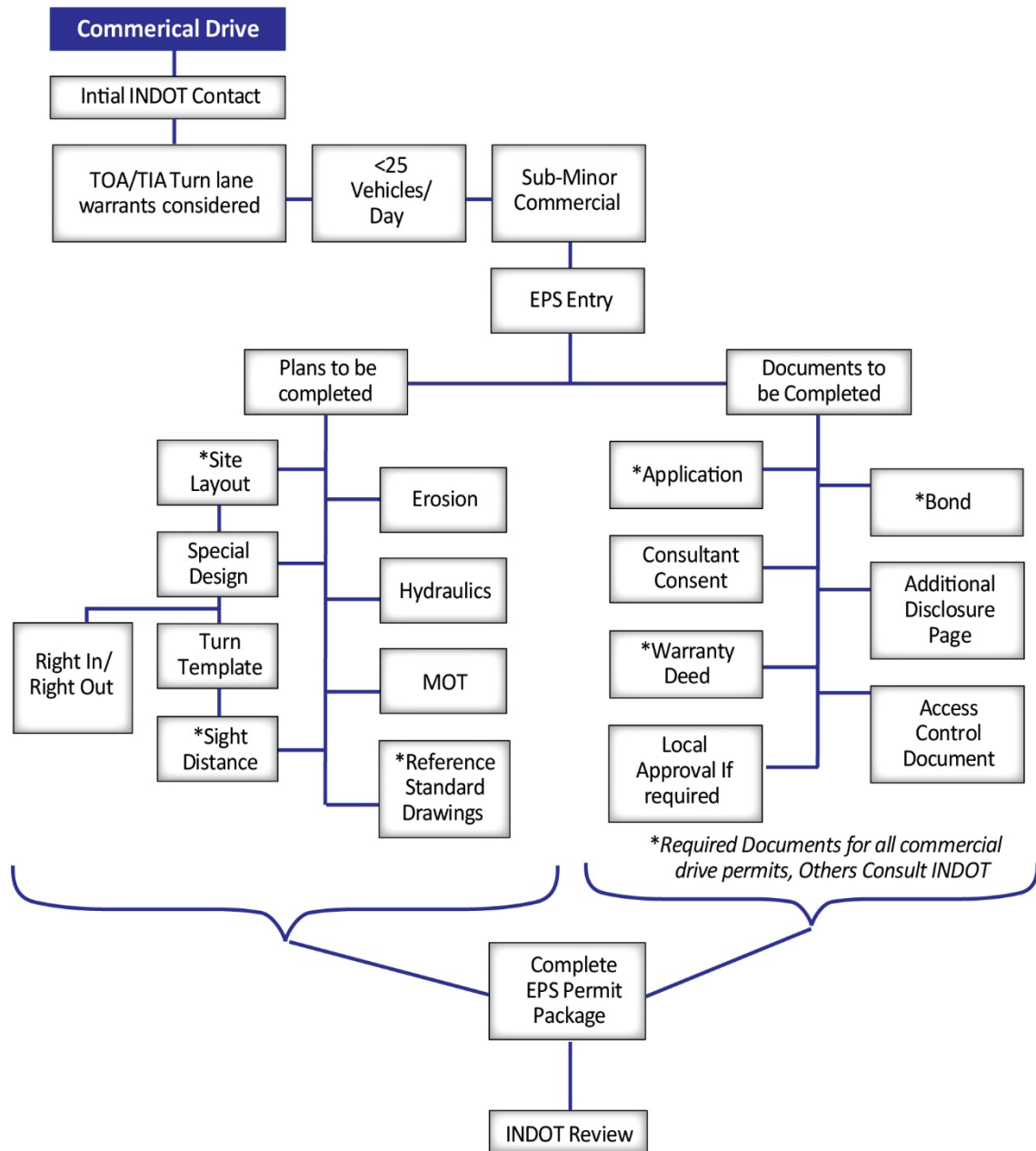




**FIGURE 3.3: COMMERCIAL MAJOR PERMIT PROCESS FLOW**



**FIGURE 3.4: COMMERCIAL MINOR PERMIT PROCESS FLOW**



**FIGURE 3.5: COMMERCIAL SUB-MINOR PERMIT PROCESS FLOW**

## **APPLICATION PREPARATION:**

Application to INDOT will be made within EPS as prescribed by INDOT. The EPS forms and accompanying documentation will be submitted as prescribed by INDOT. The result will be a Driveway Permit Application Package that completely and clearly describes and records the proposed work to be performed on INDOT's right-of-way by the applicant. It contains plans, documents, and other information on which to base a determination. It must also provide a clear record that can be reviewed in future years for investigative purposes.

The application will include immediately proposed and future work affecting all locations of access to the applicants' property and adjacent parcels in which an interest is held by the applicant.

## **INITIAL CONTACT/MEETING WITH INDOT:**

An applicant must contact INDOT in order to obtain a permit. Initial contact between the applicant and INDOT may be made through EPS, telephone, e-mail, mail, or at a district or subdistrict office. The purpose of this is to determine where the work on the state right-of-way is to be performed, determine the appropriate INDOT District Permit Section, and to set up an initial meeting (highly recommended) at the location amenable to the applicant.

The initial contact and meeting with the INDOT District Permit Staff will determine the type of driveway permit required, and an assessment of the documents and data required to complete a successful permit application. A meeting at the work site may be arranged so that the applicant and permit inspector can discuss the field conditions and needs of the applicant. Any unique circumstances will be discussed in detail and the applicant will be given guidance on a proper course of action.

See the INDOT website for an interactive map for districts and subdistricts. ([Interactive Map](#) )

## **ELECTRONIC PERMIT SYSTEM AND PERMIT PACKAGE:**

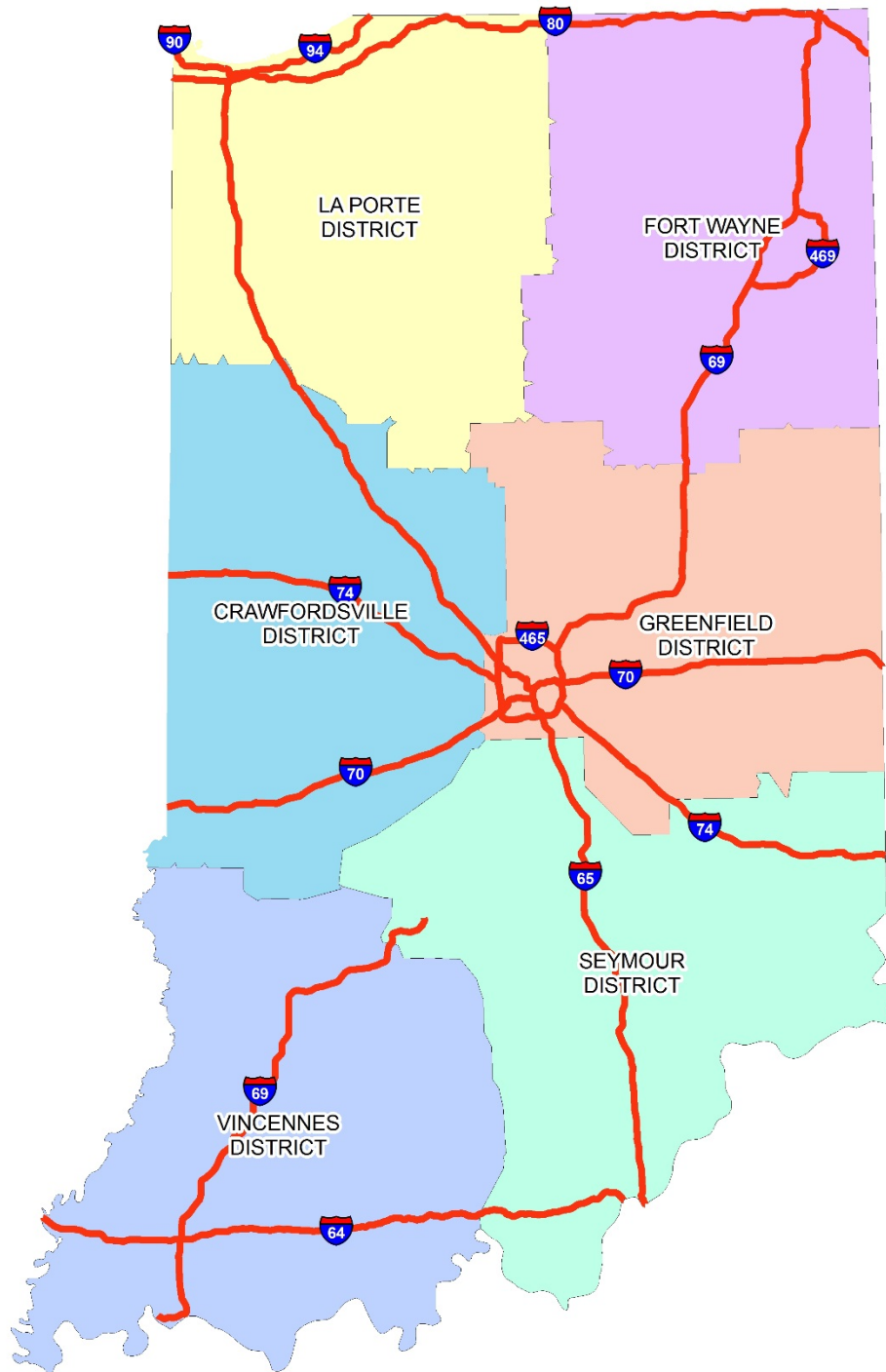
All applications must be submitted via EPS. The initial contact and meeting with INDOT may be used to initiate this process. Permit forms, and instructions for completing them, can be obtained from the INDOT Permits website ([INDOT Permits](#)) and from the appropriate INDOT District Office. Complete and accurate information is essential to expedite the permit processing.

## **INDOT TECHNICAL REVIEW:**

Upon completion of the applicants Driveway Permit Package, the INDOT reviewer will assess the merits of the application in a timely manner. The application may also be subject to technical review by other district sections, such as Traffic, Real Estate, Design, Pavement, Hydraulics, and Utilities with additional modifications possibly being required. Under certain circumstances, such as crossing limited-access right-of-way, nonstandard geometry, or large-scale site development, the application will be forwarded to the INDOT's Central Office for final decision. Issues and questions must be resolved before the permit is issued and INDOT will be satisfied that the applicant's work on the highway right-of-way will be successful.

During the INDOT Technical Review, the applicant may be required to provide additional information as areas of importance are discovered.

Communication and final approval of the permit will be tracked within the EPS system.



**FIGURE 3.6: INDOT DISTRICT OFFICE INDIANA REGIONAL MAP**

**1. Crawfordsville District**

41 West 300 North  
Crawfordsville, IN 47933  
Phone: 855-INDOT4U  
Fax: 765-364-9226  
westcentralIndiana@indot.in.gov  
<http://www.in.gov/indot/2701.htm>

**2. Fort Wayne District**

5333 Hatfield Road  
Fort Wayne, IN 46808  
Phone: 855-INDOT4U  
Fax: 260-471-1039  
NEinformation@indot.in.gov  
<http://www.in.gov/indot/2703.htm>

**3. Greenfield District**

32 South Broadway  
Greenfield, IN 46140  
Phone: 855-INDOT4U  
Fax: 317-462-7031  
eastcentralin@indot.in.gov  
<http://www.in.gov/indot/2704.htm>

**4. LaPorte District**

315 E. Boyd Blvd.  
LaPorte, IN 46350  
Phone: 855-INDOT4U  
Fax: 219-325-7434  
LaPorteDistrictCommunications@indot.in.gov  
<http://www.in.gov/indot/2705.htm>

**5. Seymour District**

185 Agrico Lane  
Seymour, IN 47274  
Phone: 855-INDOT4U  
Fax: 812-522-7658  
secommunications@indot.IN.gov  
<http://www.in.gov/indot/2706.htm>

**6. Vincennes District**

3650 South U.S. Highway 41  
Vincennes, IN 47591  
phone: 812-895-7300  
Phone: 855-INDOT4U  
Fax: 812-895-7479  
swincommunications@indot.in.gov  
<http://www.in.gov/indot/2707.htm>

## SECTION 4: DRAWINGS AND INFORMATION REQUIRED FOR COMMERCIAL MAJOR & MINOR DRIVEWAY APPLICATIONS

The permit application should be accompanied by clear drawings in the form of a pdf, prepared by a professional engineer registered in Indiana, by a registered architect, and/or by a registered land surveyor showing the following information in detail. For convenience, a list of INDOT prequalified consulting firms can be found here:

[\(Prequalified Consulting Firms\)](#)

- Driveways and approaches including dimensions for width, length, angle of intersection radii, and any other measurements necessary to show the geometrics of driveway and approaches drawn to an engineer's 20 or 30 scale.
- A rate of slope or grade of pavement for approaches and driveways, and typical cross sections.
- Type of approach and driveway pavement material (stone, concrete or hot mix asphalt (HMA) pavement including depth of lifts).
- Existing drainage patterns (including existing contours) and structures, including size and kind.
- New drainage patterns including the effect on downstream department facilities and private property, and structures including size, kind, invert pipe elevations, and inlet elevations.
- Width dimension of highway right-of-way.
- Width and type of highway pavement.
- Highway right-of-way and applicants' property lines.
- Development site plan showing parking, interior driveways, buildings, and other improvements, including distance from right of-way line.
- Distance to intersecting roads, streets, railways, or crossovers within five hundred (500) feet in each direction on both sides of the highway from the applicants' property lines drawn to an engineer's 50 scale.
- A separate pavement marking and signing plan showing all existing and proposed pavement markings and signs with details of type, material, color, etc.
- The distance to - and the design of - all driveways, intersecting roads, streets, railways, or crossovers within five hundred (500) feet in each direction on both sides of the highway from the applicant's property lines drawn to engineer's 50 scale.
- The posted speed limit on highway and all traffic control equipment serving the highway, including but not limited to signalization devices, lighting, pavement markings, guardrail, and sign structures.
- Proposed treatment of right-of-way area adjacent to and between approaches.
- Appropriate symbols such as north arrow, direction of lane travel and direction of drainage flow, and a legend defining abbreviations and graphic representations of existing and new conditions, objects, materials, etc.



- A legal description of the property to be served by the permit together with a legal description of the adjoining land owned or controlled by the applicant.
- Traffic control needed during work activity displaying necessary signs, barricades, detour signs, and warning devices will be provided whenever work is to interfere with normal traffic. Traffic control must be in accordance with the Construction and Maintenance Section of the Indiana Manual on Uniform Traffic Control Devices.  
(<http://in.gov/dot/div/contracts/design/mutcd/2011rev3MUTCD.htm> )
- Geotechnical report by an approved INDOT consultant.
- Pavement Design as per  
([http://in.gov/indot/design\\_manual/design\\_manual\\_2013.htm](http://in.gov/indot/design_manual/design_manual_2013.htm) ).
- Cross Sections both original and proposed for the right turn lane and cross over removal. Slopes designed in accordance to [IDM](#).
- Turning Template demonstrating ingress/egress to assure vehicle does not encroach onto adjacent travel lanes per [IDM Chapter 46-2A](#).  
([http://in.gov/indot/design\\_manual/files/Ch46\\_2013.pdf](http://in.gov/indot/design_manual/files/Ch46_2013.pdf) )
- Right turn lane analysis as per IDM Chapter 46-4.01(01), Figure 46-4A and Permit Manual Section 15.  
([http://in.gov/indot/design\\_manual/files/Ch46\\_2013.pdf](http://in.gov/indot/design_manual/files/Ch46_2013.pdf) )
- Left turn Analysis as per IDM Chapter 46-4.01(02), Figure 46-4C and Section 16 of the INDOT permit manual.
- Passing Blister as per criteria of Permit Manual as per IDM Chapter 46-4O.  
([http://in.gov/indot/design\\_manual/files/Ch46\\_2013.pdf](http://in.gov/indot/design_manual/files/Ch46_2013.pdf) )
- Plot Intersection site distance as per IDM 46-10.0 Figure 46-10 G, H.  
([http://in.gov/indot/design\\_manual/files/Ch46\\_2013.pdf](http://in.gov/indot/design_manual/files/Ch46_2013.pdf) )
- Plot Stopping Site Distance as per [IDM Chapter 42-1.02](#), Figure 42-10A.  
([http://in.gov/indot/design\\_manual/files/Ch42\\_2013.pdf](http://in.gov/indot/design_manual/files/Ch42_2013.pdf) )
- Traffic Impact Study or Traffic Operational Analysis.
- Completed Forms:
  - Additional Disclosure Page SF 23237 (R3/3-00)
  - Permit Bond SF 41523 (R4/3-00)
  - Permit Application SF 41769 (R5/3-00)
  - Traffic Signal Covenant
  - Auxiliary Lane Covenant
  - Consultant Consent Form
  - Access Control Document

Failure to provide appropriate information will result in delays in processing and possible overdesign due to wrong assumptions.

## SECTION 5: TYPES OF APPROACH CLASSES

Approaches are designated as belonging to one of the following seven classes pursuant to the Indiana Design Manual; 46-11.01(1).

[http://in.gov/indot/design\\_manual/files/Ch46\\_2013.pdf](http://in.gov/indot/design_manual/files/Ch46_2013.pdf)

**TABLE 5.1: APPROACH TYPE AND DRAWING STANDARDS BY APPROACH CLASS**

<b>APPROACH CLASS</b>	<b>TYPE OF APPROACH DESCRIPTION</b>	<b><u>INDOT STANDARD DRAWING</u></b>
<b>CLASS I</b>	A <b>RESIDENTIAL DRIVE</b> provides access to a single-family residence, duplex, or apartment building with not more than four dwelling units and along a roadway with a raised curb. The location for this class of approach is usually in an urban area. A hard pavement surface, curbs, and sidewalks are common elements in the construction of these approaches.	E-610-DRIV-01 E-610-DRIV-08 E-610-DRIV-13 E-610-DRIV-14 E-610-DRIV-17 E-610-DRIV-18 E-610-DRIV-20 E-610-DRIV-21
<b>CLASS II</b>	A <b>RESIDENTIAL DRIVE</b> provides access to a single-family residence, duplex, or apartment building with not more than four dwelling units and along a roadway with paved or unpaved shoulder and no raised curb. The location for this class of approach is usually in a rural area. A pipe continuing drainage along the highway ditch line is a common element in the construction of these approaches.	E-610-DRIV-02 E-610-DRIV-09 E-610-DRIV-10 E-610-DRIV-13 E-610-DRIV-14 E-610-DRIV-17 E-610-DRIV-18 E-610-DRIV-20 E-610-DRIV-21
<b>CLASS III</b>	A <b>COMMERCIAL DRIVE</b> provides access to an office, retail, or institutional building, or to an apartment building with five or more dwelling units. A drive that serves an industrial plant, but with a primary function to serve an administrators' or employees' parking lot, is considered to be a commercial drive. A commercial drive along a roadway with a raised curb. The location for this class of approach is usually in an urban area. A hard pavement surface, curbs, drainage structures, auxiliary lanes, tapers, and sidewalks are common elements in the construction of these approaches.	E-610-DRIV-03 E-610-DRIV-08 E-610-DRIV-13 E-610-DRIV-14 E-610-DRIV-19 E-610-DRIV-20 E-610-DRIV-21

<p><b>Class IV</b> (see note below)</p>	<p>A <b>COMMERCIAL DRIVE</b> provides access to an office, retail, or institutional building, or to an apartment building with five or more dwelling units. A drive which serves an industrial plant, but with a primary function to serve an administrators' or employees' parking lot, is considered to be a commercial drive. A commercial drive is a drive along a roadway with a paved or unpaved shoulder and no raised curb. The location for this class of approach is usually in a rural area. A hard pavement surface, auxiliary lanes, tapers, and a pipe continuing drainage along the highway ditch line are common elements in the construction of these approaches.</p>	<p>E-610-DRIV-04 E-610-DRIV-09 E-610-DRIV-10 E-610-DRIV-11 E-610-DRIV-13 E-610-DRIV-14 E-610-DRIV-19 E-610-DRIV-20 E-610-DRIV-21</p>
<p><b>Class V</b></p>	<p>A <b>FIELD ENTRANCE</b> provides access to an unimproved property, i.e., a farm field with no buildings. Such a drive is located along a roadway with a paved or unpaved shoulder. The location for this class of approach is either in an urban or rural area. The main characteristics are that it serves a vacant lot, field, or unimproved property and draws only occasional vehicles. It can be serving private property used for either residential or commercial purposes or it can serve public property. A graded surface and a pipe continuing drainage along the highway ditch line are common elements in the construction of these approaches.</p>	<p>E-610-DRIV-05 E-610-DRIV-10 E-610-DRIV-13 E-610-DRIV-14 E-610-DRIV-20 E-610-DRIV-21</p>
<p><b>Class VI</b></p>	<p>An <b>INDUSTRIAL DRIVE</b> directly serves substantial numbers of truck movements to and from loading docks of an industrial facility, warehouse, or truck terminal. A centralized retail development, such as a community or regional shopping center, may have one or more drives especially so designed, signed, and located to provide access for trucks. This is also classified as an industrial drive. An industrial drive may be designed either as a public road approach or as an industrial drive. An industrial drive along a roadway with a paved or unpaved shoulder and no raised curb. The location of this class of approach can be either in rural or urban area. These drives serve heavy industrial property and truck stops.</p>	<p>E-610-DRIV-06 E-610-DRIV-13 E-610-DRIV-14 E-610-DRIV-19 E-610-DRIV-20 E-610-DRIV-21</p>
<p><b>Class VII</b></p>	<p>An <b>INDUSTRIAL DRIVE</b> directly serves substantial numbers of truck movements to and from loading docks of an industrial facility, warehouse, or truck terminal. A centralized retail development, such as a community or regional shopping center, may have one or more drives especially so designed, signed, and located to provide access for trucks. This is also classified as an industrial drive. An industrial drive may be designed either as a public road approach or as an industrial drive. An industrial drive along a roadway with a raised curb is a Class VII drive. The location of this class of approach can be either in rural or urban area. These drives serve heavy industrial property and truck stops.</p>	<p>E-610-DRIV-07 E-610-DRIV-12 E-610-DRIV-13 E-610-DRIV-14 E-610-DRIV-16 E-610-DRIV-20 E-610-DRIV-21</p>

**TABLE 5.2: APPROACH CLASS AND TYPE BY DRAWING STANDARDS**

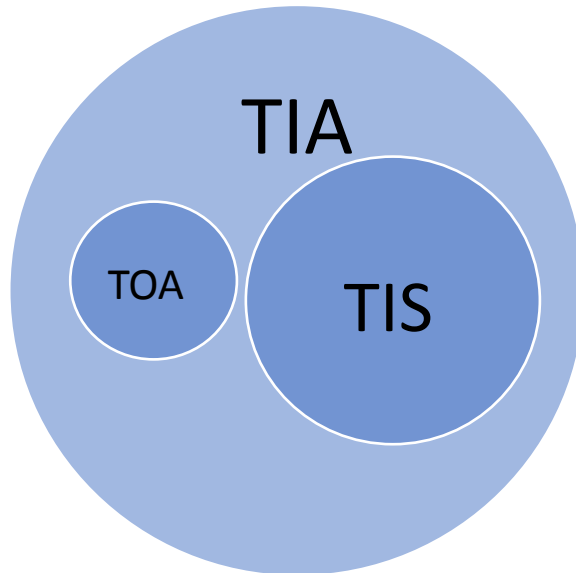
<a href="#"><u>INDOT Standard Drawing</u></a>	<b>Approach Class</b>							<b>Description</b>
	I	II	III	IV	V	VI	VII	
E-610-DRIV-01	X							Class I Drive
E-610-DRIV-02		X						Class II Drive
E-610-DRIV-03			X					Class III Drive
E-610-DRIV-04				X				Class IV Drive
E-610-DRIV-05					X			Class V Drive Field Entrance
E-610-DRIV-06						X		Class VI Drive Plan and Sections
E-610-DRIV-07							X	Class VII Drive and Joint Placement Detail
E-610-DRIV-08	X		X					Class I and Class III Drive Grade Profiles
E-610-DRIV-09		X		X				Class II and Class IV Sections
E-610-DRIV-10		X		X	X			Class II, IV & V Drives Approach Grades
E-610-DRIV-11						X		Class VI Drive Typical Profile Grades
E-610-DRIV-12							X	Class VII Drive Profile Grade
E-610-DRIV-13	X	X	X	X	X	X	X	Drives General Notes and Legend
E-610-DRIV-14	X	X	X	X	X	X	X	Shoulder Treatment at Driveways
E-610-DRIV-16							X	Class VII Drive Joint Placement and Corners
E-610-DRIV-17	X	X						Private Drive Crossover Plans
E-610-DRIV-18	X	X						Private Drive Crossovers Cross Sections
E-610-DRIV-19			X	X		X	X	Commercial Drive Crossovers Plans
E-610-DRIV-20	X	X	X	X	X	X	X	Approach Grade Cut or Fill
E-610-DRIV-21	X	X	X	X	X	X	X	Pavement Wedge Limits

Note for Approach Edges for Class IV: Commercial Minor Driveway Approaches will be connected to either tapers of a short auxiliary lane or to the highway traveled way pavement with returns of adequate radii.

Tapers that improve the ingress and egress turning movement characteristics of the approach and that connect the radii, require returns to the highway when either of the following criteria are met: Highway ADT is greater than 4,000 vehicles per day, or approach ADT is greater than 40 vehicles per day. Per INDOT Standard Drawing 610-DRIV-04 a taper would be provided at any Class IV driveway with a paved shoulder width greater or equal to 8 feet. Discuss with your INDOT district if you have questions. Tapers will not be required for those commercial drives where conditions do not exceed these criteria. In these instances, approach edges may be connected to the highway traveled way with returns of radii only.

## SECTION 6: TRAFFIC IMPACT ANALYSIS

Traffic Impact Analysis (TIA) is a specialized engineering study of the impact that a given type and intensity of land use has on the nearby transportation system. A TIA makes it possible for mitigating measures to be taken in advance to provide for the “preservation of the highway and the safety and convenience of traffic on the highway”. See [105 IAC 7-1-1](#)



All proposed developments should compare their land use intensity to the threshold values listed in Table 6.1. If the development’s intensity is less than the value listed in the table, no TIA will be required. If the intensity is greater than the value listed in the table, further study of the traffic impacts of the development will be required. When developments cannot be neatly grouped into one of the categories listed in Table 6.1, the requirement for a TIS will be decided by INDOT.

The TIA preparer will complete the TIA prior to finalizing the development design, while there is still flexibility in the development’s site design. Prior to obtaining any permits, the developer will receive INDOT acceptance of the completed TIA.

**TABLE 6.1: THRESHOLD VALUES FOR TRAFFIC IMPACT ANALYSIS**

<b>LAND USE TYPE</b>	<b>THRESHOLD VALUES</b>
Residential	150 Dwelling Units
Retail	15000 Square Feet
Office	35000 Square Feet or 3 Acres
Industrial	70000 Square Feet or 9 Acres
Educational	30000 Square Feet or 250 Students
Lodging	120 Occupied Rooms
Medical	46000 Square Feet

For developments that require further study of traffic impacts, a meeting will be set up between INDOT and the applicant to determine the scale and scope of the study. A TIA may consist of either a Traffic Operations Analysis (TOA) or a Traffic Impact Study (TIS). A TOA is an abbreviated TIS that focuses on the build year traffic conditions with and without the proposed development. In contrast, a TIS analyzes both the build and design-year traffic conditions.

A Traffic Operations Analysis (TOA) is conducted whenever a proposed development compromises the existing design standard and therefore might cause safety and operational problems in the immediate vicinity of the site. The analysis should be done for the entire traffic impact study area and not just the access point under consideration. A TOA will typically be required when one of the following warrants are met:

- When enough turning movements into or out of the development are generated to require an auxiliary lane, such as an acceleration/deceleration lane, passing blister, or separate turn lane.
- For requests for new or modified driveways near intersections or interchanges.
- For requests for or probable need for a new or modified traffic signal to control driveways or streets serving a proposed or existing development.
- When the opportunity to evaluate alternative intersections and geometrics exists.

- When there are sight distance limitations, evidence of a large number of historical crashes, or where weaving movements exist near the site.
- When there are requests for median openings.

The Institute of Transportation Engineers (ITE) Trip Generation Manual should be used to estimate the land use thresholds to determine whether a TIS or TOA is required. INDOT may require a TIS in other unique scenarios as described in Chapter 6 of the [Applicant's Guide to Traffic Impact Analysis](https://secure.in.gov/indot/files/Permits_ApplicantsGuidetoTrafficImpactStudy_2015.pdf). ([https://secure.in.gov/indot/files/Permits\\_ApplicantsGuidetoTrafficImpactStudy\\_2015.pdf](https://secure.in.gov/indot/files/Permits_ApplicantsGuidetoTrafficImpactStudy_2015.pdf) )

A TIS will be prepared by a transportation professional with training and experience in traffic engineering and transportation planning. It must be prepared by or under the supervision of a professional engineer licensed in Indiana with experience in traffic engineering operations.

A TIS or TOA should conclude with a list of recommendations based on the findings of the analysis. INDOT will review the documentation and ask for revisions or grant approval of the recommendations listed in the TIS or TOA. INDOT has the authority to also require improvements to the highway system that are not recommended in the TIS or TOA. After the review of the TIS or TOA, INDOT will communicate to the applicant via email or letter and finally through the EPS system.

## SECTION 7: AMERICANS WITH DISABILITIES ACT

In addition to assessing the number of driveways that may be incorporated into property frontage, care must be taken to ensure compliance with the Americans with Disabilities Act (ADA) during construction and in design of the driveway. Specifically, driveway design elements must account for ramps and curbs. Chapter 51 of the Indiana Design Manual ([IDM Chapter 51](#)) provides detailed design information for ADA ramps and sidewalks. These design elements can be found within Chapter 4 of the United States Access Board ([USAB Chapter 4](#)), within The Department of Justice 2010 ADA Standards for Accessible Design ([DOJ ADA Standards](#)), and within the Public Right of Way Accessibility Guidelines ([PROWAG](#)).

## SECTION 8: LIMITED NUMBER OF DRIVEWAYS

Regulating the maximum number of driveways per property frontage limits the number of conflict areas and provides drivers that are turning more time and distance to execute their maneuvers. The number of driveways should be kept to a minimum to adequately serve the needs of the abutting property.

Access should be limited to a single drive per property unless frontage exceeds 400 feet. This applies to all driveway permit applications regardless of the number of existing drives located on the property. If more driveways are desired by the applicant, they should demonstrate to INDOT that (a) The additional driveways will not create safety or mobility issues on the state-owned route, and that (b) The additional drives are necessary to facilitate the internal traffic operations on the site. INDOT, at its sole discretion, will review and determine whether or not the additional driveways will be allowed.

Access management is best implemented by applying criteria based on established traffic engineering and roadway design principles. However, there may be constraints in built-up areas that would limit the application of the access management criteria. Section 4.1 of the INDOT Access Management Guide provides guidance on access management techniques that can be used in situations where it is not possible to achieve the desired access criteria. They are commonly referred to as “retrofit” situations. ([http://www.in.gov/indot/files/guide\\_total.pdf](http://www.in.gov/indot/files/guide_total.pdf))

Where there are several adjacent roadside establishments, each with limited frontage or where there is a probability of such development, consideration will be given to constructing a frontage road for several driveways so as to reduce the number of separate connections to the highway. Frontage roads that parallel the highway will be



allowed access points at minimum intervals of 500 feet. Frontage roads should be set back from the state highway in such a manner as to allow adequate storage for entering and exiting traffic.

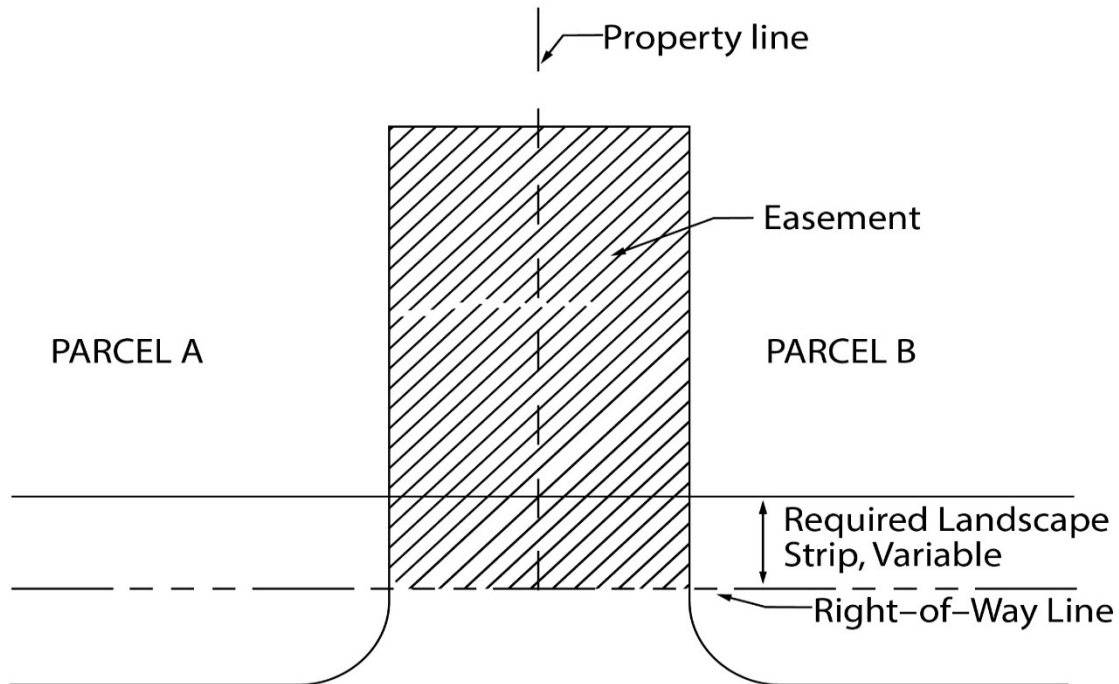
## SECTION 9: JOINT DRIVEWAYS

If practical and agreeable to the property owners, the use of a joint drive offers one option to reduce the number of access points along the highway. The centerline of the joint drive should be located on the property line dividing the two owners. See Figure 6.1. This practice will not allow either owner the opportunity to deny or restrict access to the neighbor's property and, depending on the traffic volume, may improve the traffic flow on the mainline. For a commercial drive, this may require providing a drive wide enough to handle two-way traffic. [Indiana Design Manual 46-11.01\(05\)](#)

An approach to a driveway that serves adjacent property owners may be allowed. However, the application will be jointly prepared and submitted by the property owners. One property owner should assume the role of applicant and the other(s) will sign the [Additional Disclosure Form](#).

A [Perpetual Easement](#) and [Maintenance Agreement](#) should be recorded on both properties to ensure the optimum use and condition.

A copy of the recorded easement will be provided to the appropriate INDOT district.



**FIGURE 9.1: JOINT DRIVEWAY**

## SECTION 10: LOCATION OF DRIVEWAYS

Driveways will be located as to result in no undue interference with, or hazard to, the free movement of normal vehicular traffic and so that areas of traffic congestion will not be created on the highway. In accordance with this principle, driveways will be located where the highway alignment and profile are favorable. There should be no sharp curves, steep grades, or sight distance restrictions. To the extent feasible within the frontage limits, any driveway should be located at a point of optimum sight distance along the highway. An application may be denied if adequate sight distance cannot be obtained.

Where a driveway is provided to a commercial establishment, the highway right-of-way and the adjacent borders will be reasonably clear so that either the establishment itself or the appropriate sign located outside the right-of-way can be seen at a sufficient distance. This will enable proper and safe maneuvering by the motorist desiring to enter the establishment.

Where longitudinal separation distance cannot be met, the designer should maximize longitudinal spacing between adjacent driveways. See [Section 11](#) of this manual for clarification on separation distance requirements.

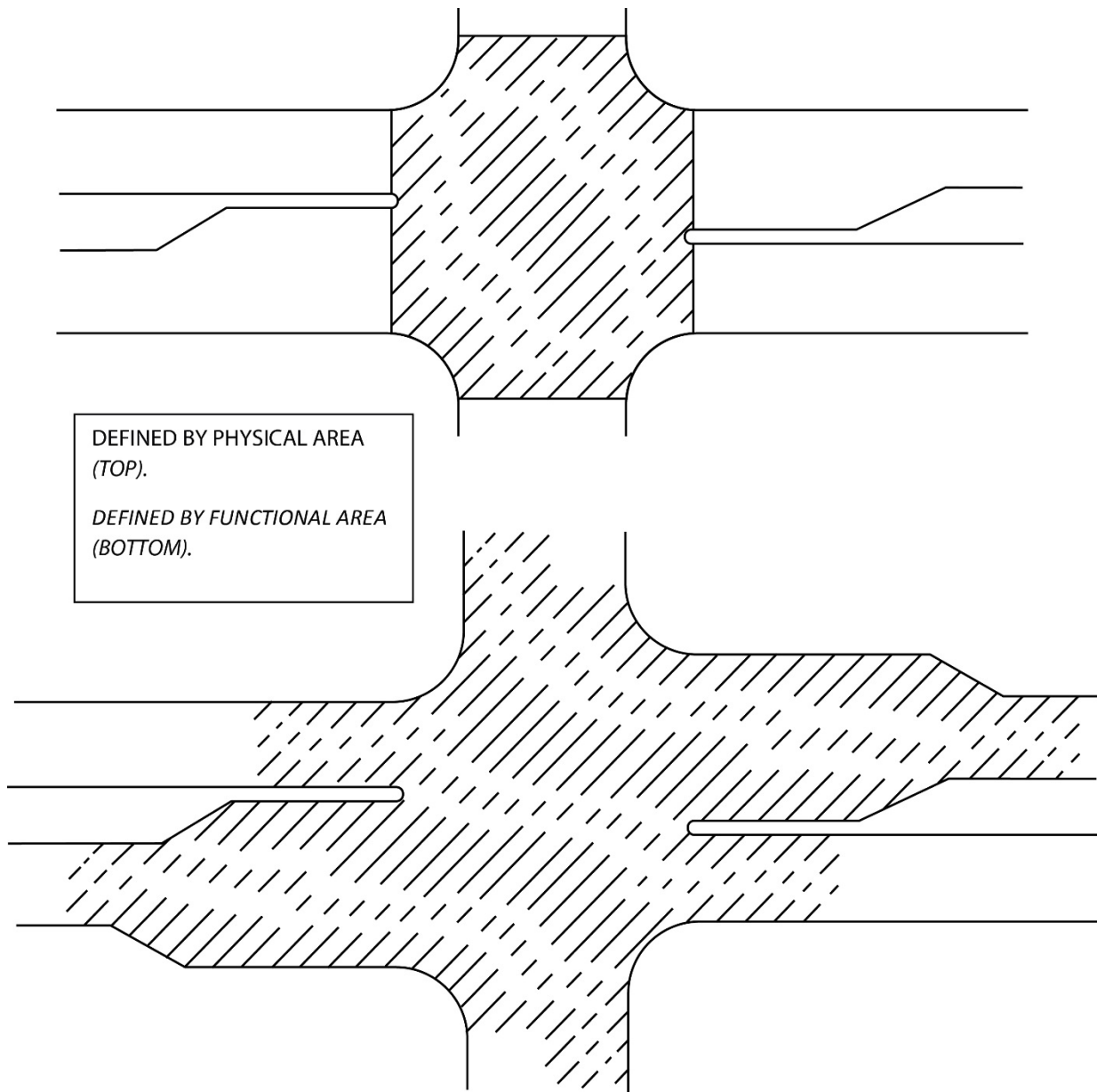
Full-access driveways should not be situated within the functional boundary of intersections. This boundary would include the longitudinal limits of auxiliary lanes. The functional boundary is larger than the physical boundary of the intersection and includes the areas beyond the junction of the intersecting roadways that is critical to the proper function of the intersection.

At signalized intersections, the minimum corner clearance should be equal to the average signal queue length during the peak hour. This will prevent blockage of driveways upstream of the intersection due to standing traffic queues.

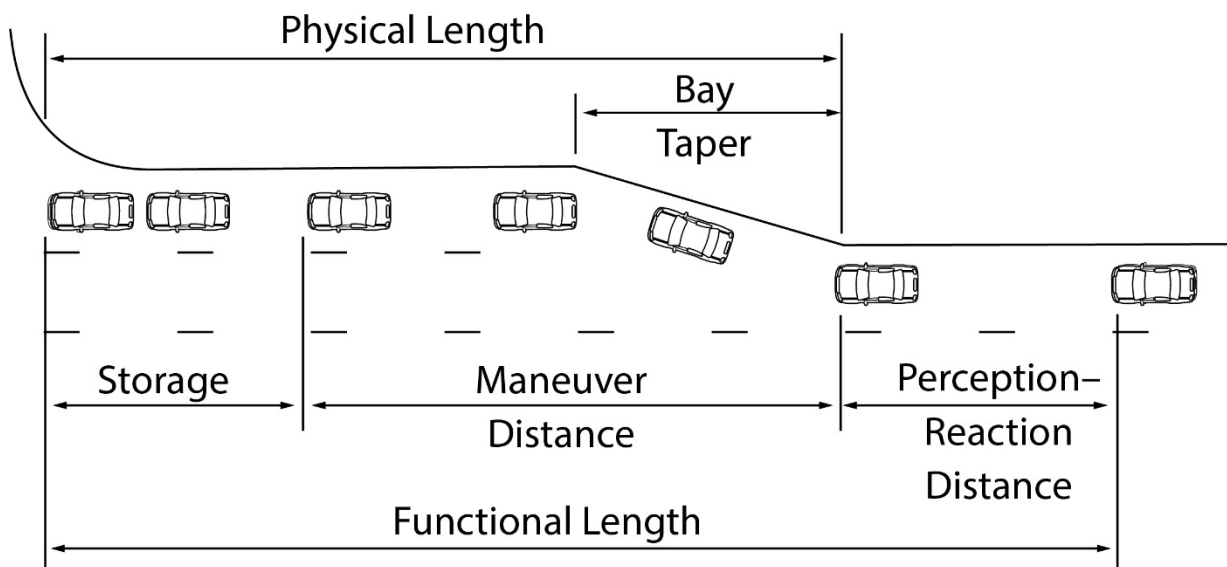
At unsignalized intersections, corner clearance distances need only be sufficient to ensure adequate and unrestricted turning movements by driveway traffic.

These basic Access Management Principles are described in more detail within the Indiana Access Management Guide Sections 1.4 and 3.3.1.

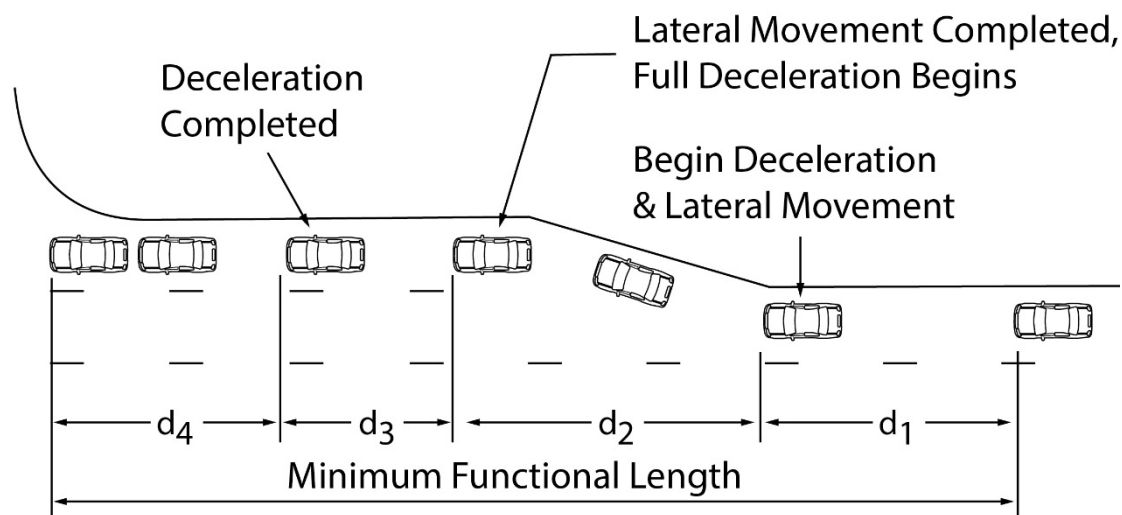
([http://www.in.gov/indot/files/guide\\_total.pdf](http://www.in.gov/indot/files/guide_total.pdf))



**FIGURE 10.1: BOUNDARY OF INTERSECTION**



**FIGURE 10.2: ELEMENTS OF THE FUNCTIONAL AREA OF INTERSECTION**



- $d_1$  = distance traveled during perception-reaction time
- $d_2$  = distance traveled while driver decelerates and maneuvers laterally
- $d_3$  = distance traveled during full deceleration and coming to a stop or to a speed at which the turn can be comfortably executed
- $d_4$  = storage length

**FIGURE 10.3: DETERMINANTS OF INTERSECTION MANEUVER DISTANCE**

If opposing commercial drives cannot be built directly opposite, and space allows, a minimum separation distance must be as described in [Section 11](#) of this manual. Where traffic signal warrants may be satisfied, a driveway should be situated opposite a three-leg intersection. If existing signalized intersections are present, the desired spacing between signalized intersections is 2640 feet. Also, consideration should be given to making the driveway a one-way operation intended to facilitate better traffic movement by reducing the “stream” friction between opposing traffic.

Whenever separate parcels are assembled under one purpose, plan entity, or usage, the existing access driveways should be consolidated. This requires specific changes on commercial sites when they are assembled for development or re-development. The consolidation is accomplished by voiding existing driveway permits upon alteration of the property functions. The new permit authorization depends on the developer’s plans to use existing driveways and close or relocate other driveways. See INDOT [Access Management Guide](#)

## SECTION 11: SEPARATION DISTANCE

The distance between driveways must be such to allow driveway vehicles to safely accelerate, decelerate, and cross traffic streams without excessive interference with through traffic or traffic using adjacent driveways. Thus, the minimum spacing is related to the operational characteristics of the highway and interactions between adjacent driveways. Such interactions include conflicts between vehicles entering the traffic stream simultaneously from adjacent driveways and blocking of the adjacent driveways by left-turn queues. Table 11.1 shows the minimum preferred spacing for various highway speeds. The spacing is the clear distance between the near edges of the driveway throats.

**TABLE 11.1: MINIMUM SEPARATION OF ADJACENT DRIVEWAYS**

Highway Speed (mph)	Minimum Spacing (feet)
30	200
35	250
40	305
45	360
50	425
55	495

### ACCESS SPACING AND RELATED CRITERIA: GENERAL NOTES

Spacing for all unsignalized intersections per AASHTO stopping sight distances is based on speed. Signalization is allowed only at state highway intersections with public streets and Commercial Major driveways. Note that all signals will meet the Indiana Manual Traffic Control Device (IMUTCD) warrant criteria to be considered.

(<http://in.gov/dot/div/contracts/design/mutcd/2011rev3MUTCD.htm> )

Table 11.2 gives information concerning the minimum acceptable deviation from the ideal signalized intersection spacing. Specific direction on traffic signal spacing is given in the Indiana Design Manual. Table 11.3 give spacing guidelines related to

major road upstream clearance.

([http://in.gov/indot/design\\_manual/design\\_manual\\_2013.htm#](http://in.gov/indot/design_manual/design_manual_2013.htm#)) Also see the INDOT Access Management Guide Section 3.1 ([http://www.in.gov/indot/files/guide\\_total.pdf](http://www.in.gov/indot/files/guide_total.pdf))

**TABLE 11.2: TRAFFIC SIGNAL SPACING**

Tier	Ideal Signalized Intersection Spacing Guideline	Minimum Acceptable Bandwidth for Deviation from Ideal Signalized Intersection Spacing	
		Urban	Rural
1A and 1B	0.5 mi	45%	50%
2A and 2B	0.5 mi	40%	45%
3A and 3B	0.5 mi	35%	40%

**TABLE 11.3: MAJOR ROAD UPSTREAM CLEARANCE**

Speed (mph)	Desirable Conditions		Limiting Conditions	
	Maneuver Distance <sup>2,6</sup> (ft.)	PIEV <sup>3,4</sup> Plus Maneuver Distance <sup>5,6</sup> (ft.)	Maneuver Distance <sup>5,7</sup> (ft.)	PIEV <sup>6</sup> Plus Maneuver Distance (ft.)
20	70	130	70	100
25	110	185	105	140
30	160	250	145	190
35	215	320	190	240
40	275	395	245	305
45	345	475	300	365
50	425	570	365	440
55	510	670	435	515
60	605	780	510	600
65	710	900	590	685
70	820	1,025	680	785



## SECTION 12: PROPERTY CLEARANCE

A minimum [property clearance](#) of 25 feet is necessary to allow a motorist to perform the maneuver from one driveway to another with a minimal turning path. The preferred property clearances shown on Table 12.1 should serve as a guideline if minimum driveway separation distances cannot be implemented directly.

**TABLE 12.1: RECOMMENDED PROPERTY CLEARANCE**

Highway Speed (mph)	Property Clearance (ft)
Mph	feet
20	40
25	50
30	60
35	75
40	90
45	115

## SECTION 13: SIGHT DISTANCE

To the extent feasible within the frontage limits, any driveway should be located at a point of optimum sight distance along the highway. For an at-grade intersection to operate properly, adequate sight distance should be available. The designer should provide sufficient intersection and stopping sight distance for a driver to perceive potential conflicts and to perform the actions needed to negotiate the intersection safely. (Indiana Design Manual; 46-10.0, 46-11.01(3), 42-1.0  
([http://in.gov/indot/design\\_manual/design\\_manual\\_2013.htm](http://in.gov/indot/design_manual/design_manual_2013.htm))

Where a driveway is provided to a commercial establishment, the buffer area and the adjacent border will be reasonably clear so that either the establishment itself or the appropriate sign located outside the right-of-way can be seen at a sufficient distance to enable proper and safe maneuvering on the part of the drivers desiring to enter the establishment.

The profile of the driveway and the grading of the buffer area will be such that a driver of a vehicle that is waiting on the driveway outside the edge of the traveled way can see sufficient distance in both directions along the highway traveled way to enable driver to enter the highway without creating a hazardous situation. Inadequate sight distance may be a cause for denial of the permit.

The minimum sight distance available on a roadway should be sufficiently long to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path. This distance is dependent on the height of the driver's eye above the road surface, the specified object height above the road surface, and the height of sight obstructions within the line of sight.

See Indiana Design Manual Figure 42-1A for Stopping Sight Distances and Figure 46-10A to -10K for intersection sight distance tables.  
([http://in.gov/indot/design\\_manual/design\\_manual\\_2013.htm](http://in.gov/indot/design_manual/design_manual_2013.htm))

## SECTION 14: DRIVEWAY EXITING LANES

Frequently, left and right traffic turning movements share a single lane on the exiting driveway approach to the highway. When this occurs, vehicles with different movements do not have simultaneous access to highway traffic gaps; nor can more than one vehicle with the same movement use the same gap.

Left turn movements will generally experience longer delays than other movements because of nature and priority of movement. All vehicles in a shared lane experience increased delay over the condition in which left turns have a separate lane. All vehicles will experience some decrease in delay if a separate lane is provided for left and right turn movements.

However, depending upon highway traffic volume, exiting traffic volume and turning movement patterns, and the desired level of service, right turn vehicles may not be significantly better served by an exclusive lane. Figures 14.1, 14.2, 14.3, and 14.4 establish when it is beneficial to improve traffic flow by going from a shared lane to exclusive turn lanes.

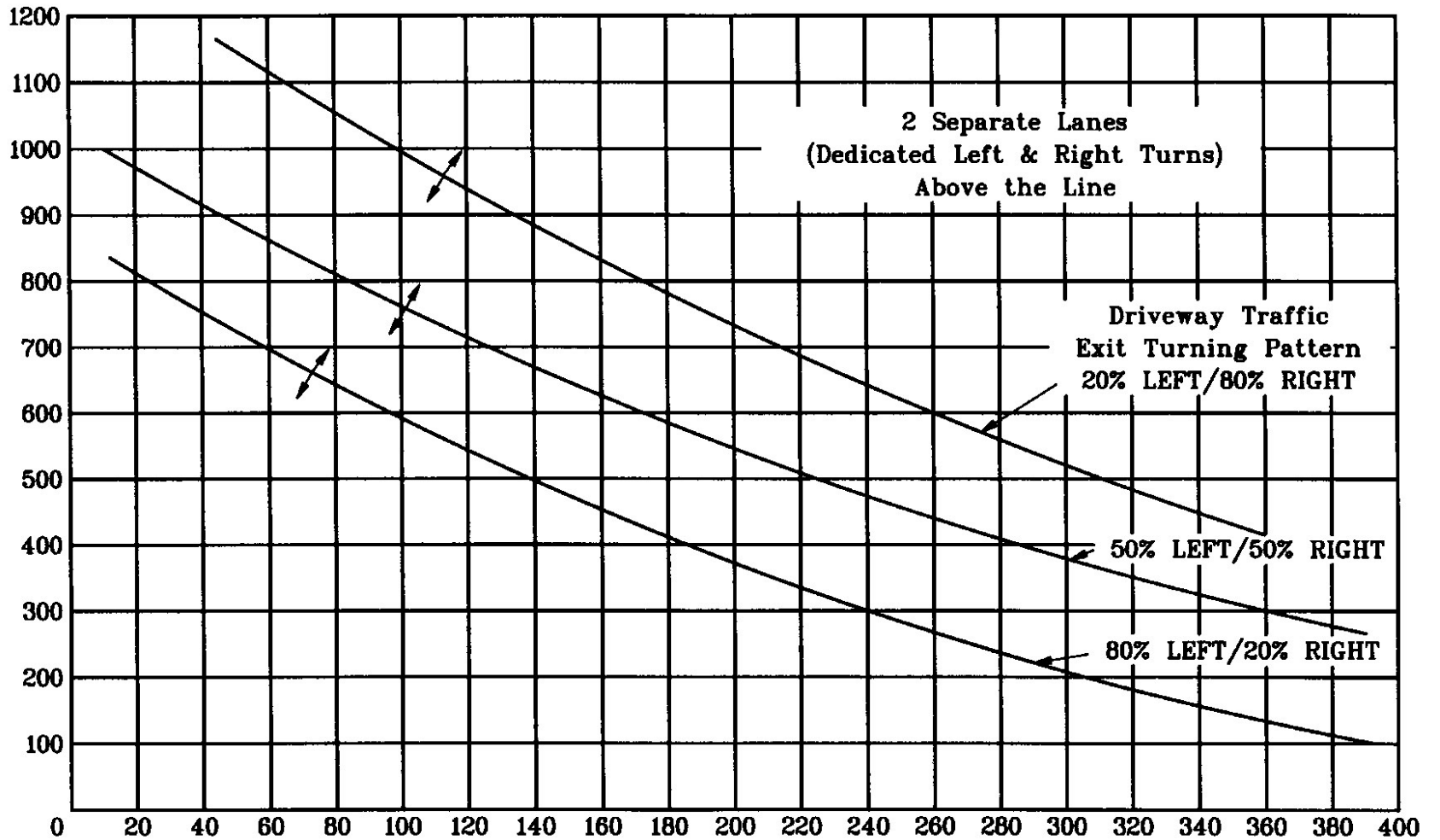
For example, assuming the driveway approaches a two-lane highway with a 55 mph posted speed limit, a 240 vehicle per hour (VPH) exiting traffic volume, with 80 percent left turn exiting maneuvers, can satisfactorily be served by a single exiting lane as long as mainline traffic volume is below 300 VPH (reference Figure 14.1). If mainline traffic volume is greater than 300 VPH, then dedicated right and left exit turning lanes should be constructed for operational efficiency. However, if only 20 percent of this exiting traffic volume makes a left turn, then mainline traffic volume can be up to 640 VPH before dedicated right and left turning exit lanes would be preferred over a single shared lane.

It is intended to maintain a minimal Level of Service C, as defined in the Highway Capacity Manual. (Dedicated, exclusive lanes for right and left turning movements may also be considered if the applicant desires to provide a level of service above C). Highway traffic is assumed to be equally divided between each travel direction. The need for exclusive lanes is reduced when a "Yield" rather than "Stop" condition exists or a right turn acceleration lane is provided. The need for exclusive lanes is increased when sight distance is restricted or as grade increases/decreases from level.

**Figures 14.1, 14.2, 14.3, and 14.4: Determination of benefit of a shared lane vs exclusive turn lane.**

V.P.H.  
(Mainline)

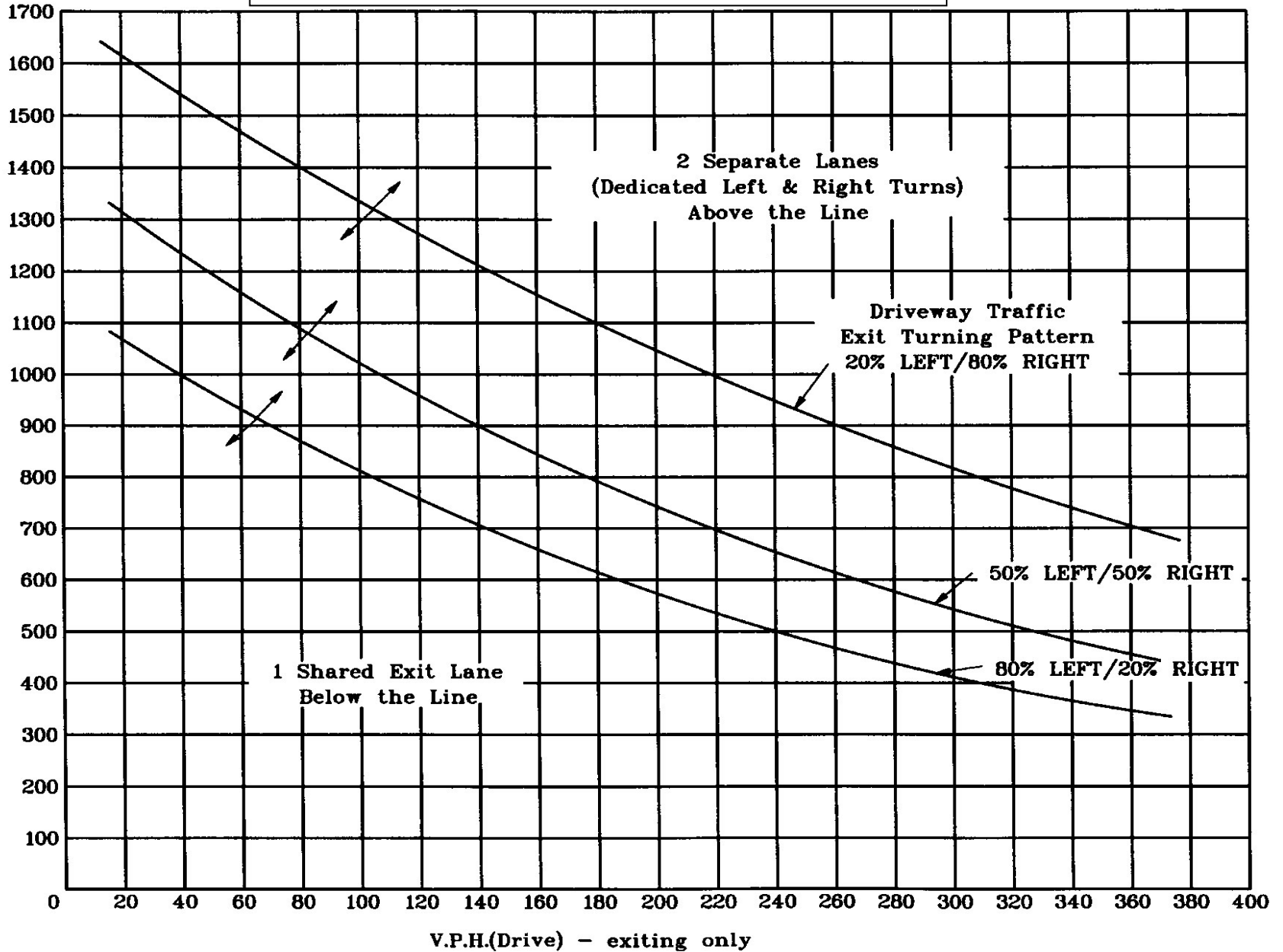
FIGURE 14.1: 2-LANE HIGHWAY – 55 MPH  
(NUMBER OF EXITING LANES)



V.P.H.(Drive) - exiting only

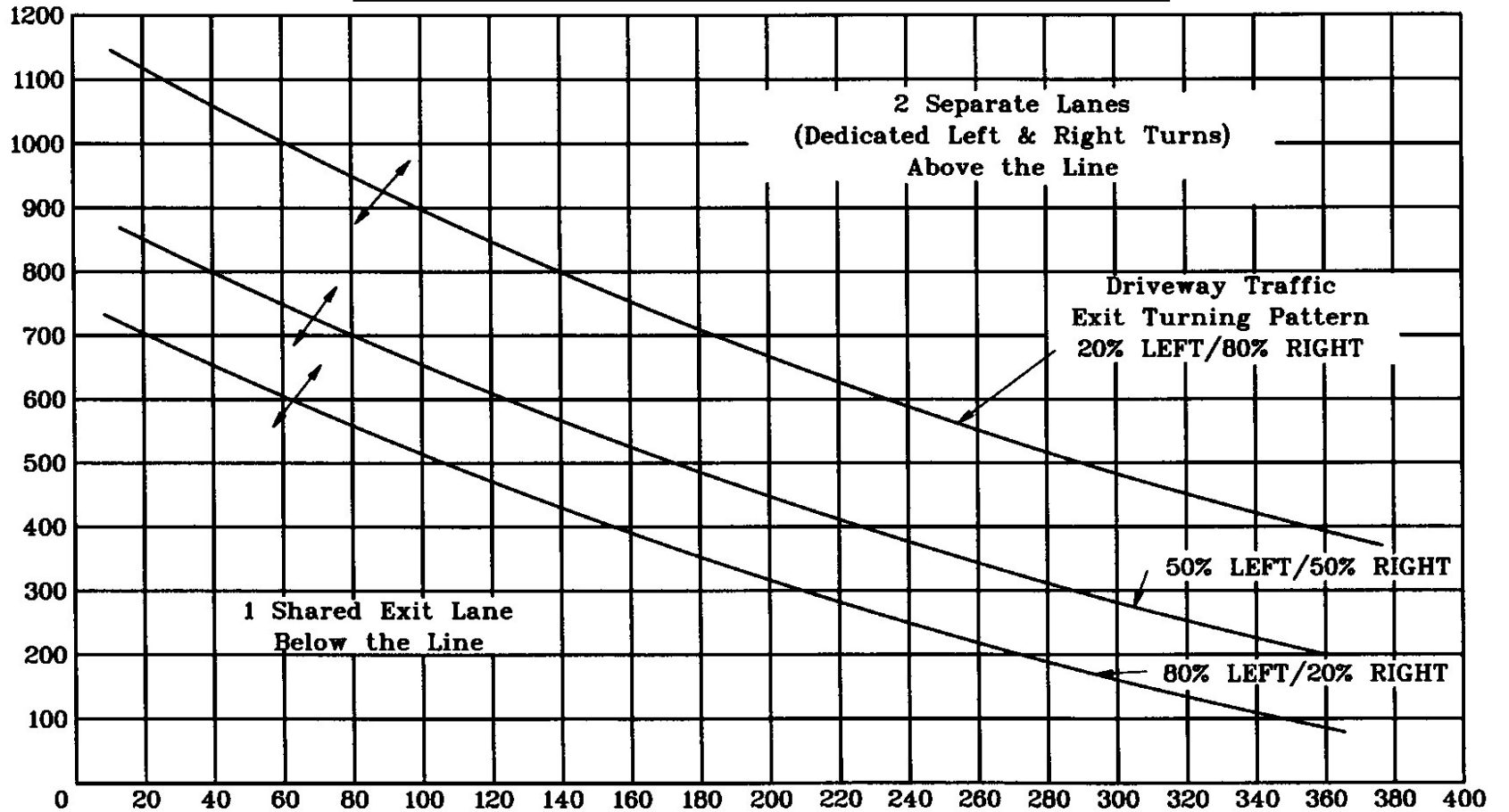
FIGURE 14.2: 2-LANE HIGHWAY – 30 MPH  
(NUMBER OF EXITING LANES)

V.P.H.  
(Mainline)



V.P.H.  
(Mainline)

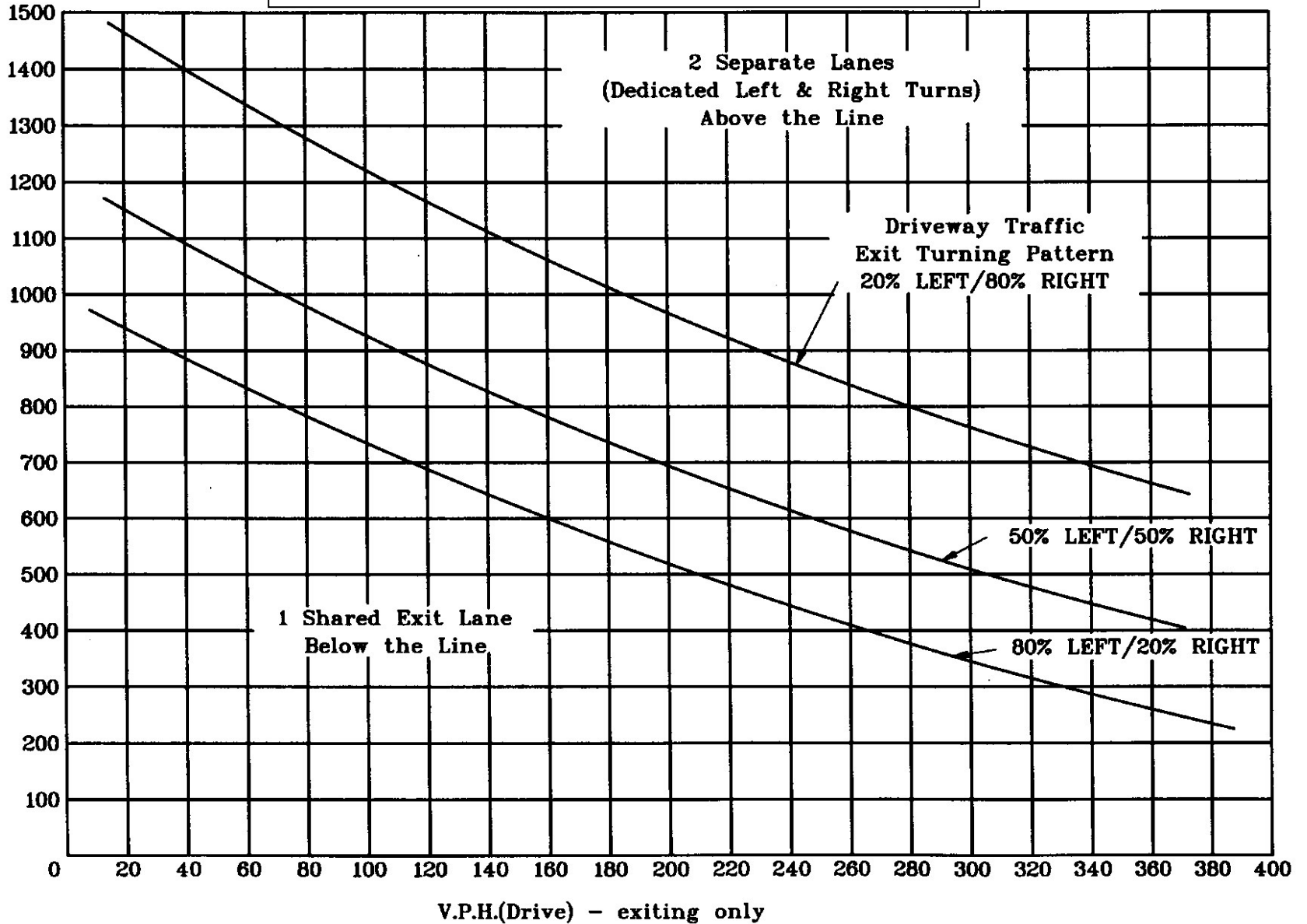
FIGURE 14.3: 4-LANE HIGHWAY – 55 MPH  
(NUMBER OF EXITING LANES)



V.P.H.(Drive) - exiting only

FIGURE 14.4: 4-LANE HIGHWAY – 30 MPH  
(NUMBER OF EXITING LANES)

V.P.H.  
(Mainline)



## SECTION 15: DRIVEWAY WIDTH

The driveway width is a function of various parameters including highway and driveway operating conditions, driveway alignment angles, and approach-turning radii. The driveway opening width defines the area available for occupancy by driveway vehicles. Large driveway opening widths promote hazardous operational maneuvers unless driveway channelization is provided. A wide driveway opening can be occupied by several vehicles making simultaneous entering and exiting maneuvers.

For roads without curbs, driveway width should be measured exclusive of radii or flares.

For roads with curbs, driveway width should be measured behind the flared section.

Driveway width is an important design element that has several criteria to consider. The width must be adjusted appropriately depending upon:

- One-way vs two-way access.
- Vehicle volume.
- Single- vs multi-unit vehicles.
- Vehicle length and width.

The above criteria do not apply to the access(es) where additional lanes are required to facilitate the traffic coming out of driveway, or if the access is intended to become a public road.

The following criteria will apply.

- Driveway width should be measured perpendicular to the centerline of the drive.
- For each new drive constructed where no drive currently exists, the minimum width shown on the INDOT Standard Drawings should be used, unless determined otherwise at the field inspection or if the Office of Real Estate recommends a wider driveway.
- The width of a reconstructed driveway should be the same as the existing width but not less than the minimum width nor greater than the maximum width shown on the INDOT Standard Drawings. Each driveway that serves a barn or storage shed for farm equipment should be a minimum of 24 feet wide.

The Indiana Design Manual Section 46-11.02 gives additional specific guidance. ([http://in.gov/indot/design\\_manual/files/Ch46\\_2013.pdf](http://in.gov/indot/design_manual/files/Ch46_2013.pdf))



## SECTION 16: CORNER RADII

The three principal considerations for setting driveway corner radii are:

1. Availability of right-of-way.
2. Safety and ease of vehicle movement.
3. Pedestrian movement and safety.

Typically, sufficient right-of-way is available to construct in its entirety the driveway approach configuration on state property; but, if necessary because of dimensional configuration requirements of minimal highway right-of-way, the approach can be expanded back onto the applicant's property. Increasing corner radii at the driveway approach provides smoother right turns, reduces driveway throat width, and reduces the negative effect that right turns have on capacity of through traffic. Increasing a radius, however, can adversely affect pedestrian safety by increasing exposure to traffic.

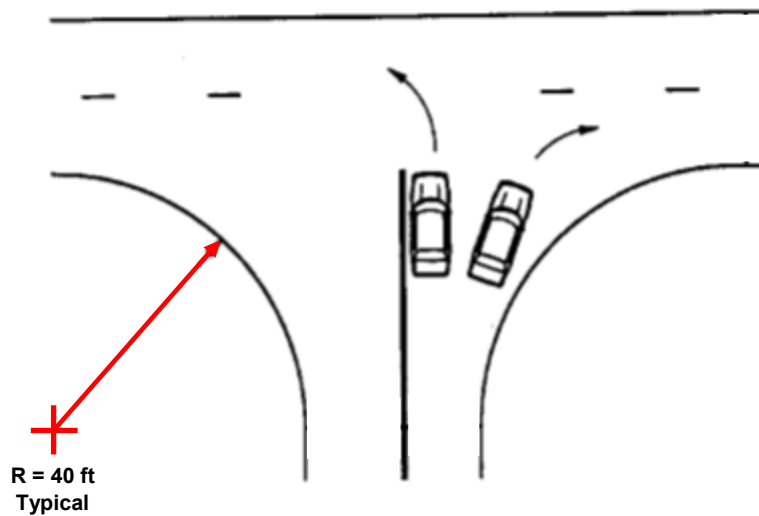
Driveways with wide approach corner radii will allow design vehicles approaching in the same lane to stop side by side (see Figure 16.1). This will act to reduce or eliminate the adverse impact where several turning movements share the same lane. However, large radii, i.e., radii in excess of 40 feet, often create placement problems for traffic signals and other control devices.

The following criteria apply:

- Radii for a Class II or Class IV driveway should start from the edge of the paved shoulder if the width of the paved shoulder is 8 feet or greater.
- Radii for a Class II or Class IV driveway should start from the edge of the traveled way if the width of the paved shoulder is less than 8 feet.
- Class VI driveway tapers should start from the edge of the traveled way without regard to the shoulder's width or whether or not the shoulder is paved.

Design the corner radii as per the Indiana Design Manual, Section 46-11.02

[http://in.gov/indot/design\\_manual/files/Ch46\\_2013.pdf](http://in.gov/indot/design_manual/files/Ch46_2013.pdf)



**FIGURE 16.1: IMPACT OF INCREASING CORNER RADIUS**

Selection of appropriate design radii are based on the largest standard or typical vehicle type that would regularly use the driveway (i.e., the presence of an infrequent large truck is not a controlling factor where the driveway traffic is predominately passenger cars). Consideration should be given to the type of turn to be accomplished by the design vehicle. Where it is desirable for vehicles to turn at a higher speed (i.e., for high-volume turns or turns off high-speed highways), larger radii maybe appropriate. Geometric elements such as angle of intersection, curvature, grades, auxiliary lanes, cross section, and adjacent driveways must also be taken into account.

Indiana Design Manual Section 46-2.0 summarizes the operational characteristics of various radii for a range of design vehicles. [Indiana Design Manual Section 46-2.0](#)

## SECTION 17: TURN LANES ON HIGHWAYS

Turning movements that are made from lanes shared with through traffic can cause delays and adversely impact the safety of the roadway. The addition of a right- or left-turn lane can significantly improve operations and intersection safety. A turn lane will be required, at the applicant's expense, when the criteria listed in Chapter 46-4.01 of the Indiana Design Manual are satisfied. If the applicants want to install a turn lane that does not meet the criteria listed, they may do so if they can demonstrate that the turn lane will not adversely effect on the operation of the state-owned facility. INDOT will make all final determinations regarding the installation of a right- or left- turn lane.

Specific requirements are contained within the Indiana Design Manual, Section 46-4.01, 4.02, 4.03 ([http://in.gov/indot/design\\_manual/files/Ch46\\_2013.pdf](http://in.gov/indot/design_manual/files/Ch46_2013.pdf)). The applicant may use the methodology listed in the AASHTO Green Book rather than the Indiana Design Manual to determine the length of the turn lane.

At a three-legged intersection, when the requirements for a left turn lane are not met, a passing blister may be required as follows:

- If the Annual Average Daily Traffic (AADT) of the two-lane state facility is more than 5000,
- If the AADT of the two-lane state facility is 5000 or less and there are more than 20 left-turning vehicles during the peak hour.

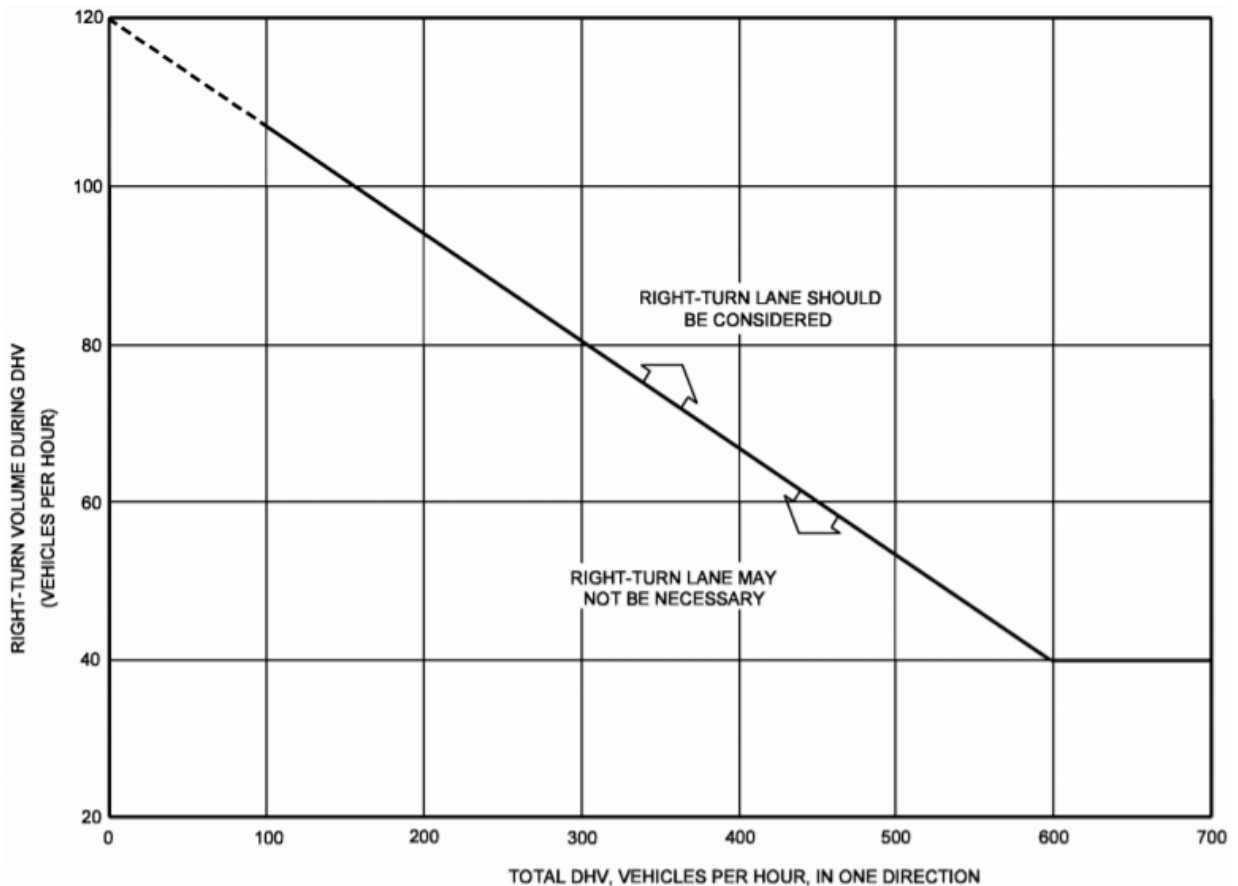
The passing blister should be designed according to the requirements of the Indiana Design Manual Chapter 46-4.03.

It is important to note that the AASHTO Green Book minimum values may not be used to supersede state or federal code requirements, e.g. National Truck Network, Americans with Disabilities Act (ADA). Highways that are on the National Truck Network must use 12-foot lanes. In Indiana, the National Truck Network is comprised of those routes designated as federal-aid primary as of June 1, 1991. The National Truck Network is available as a separate layer on the INDOT Roadway Inventory Map which can be accessed via the [INDOT Roadway Assets](#).

### RIGHT TURN LANES ON TWO-LANE HIGHWAYS

A right turn lane will be constructed to a driveway approach that will allow the turning vehicles to decelerate and to enter the approach safely and without creating unnecessary congestion to highway through traffic. A right-turn lane will be required when one or more of the following criteria is met:

- At an unsignalized intersection on a two-lane urban or rural highway which satisfies the criteria shown in Figure 17.1.
- At an unsignalized intersection on a high-speed four-lane urban or rural highway that satisfies the criteria shown in Figure 17.2
- At an intersection where a capacity analysis determines that a right turn lane is necessary to meet the level-of-service criteria.
- For uniformity of intersection design along the highway if other intersections have right-turn lanes; or
- At an intersection where the accident experience, existing traffic operations, sight distance restrictions (i.e., intersection beyond a crest vertical curve), or engineering judgment indicates a significant conflict related to right-turning vehicles.



*NOTE: For highways with a design speed below 50 mph with a DHV < 300 and where right turns >40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.*

**FIGURE 17.1: GUIDELINES FOR RIGHT TURN LANES ON TWO-LANE HIGHWAYS**

## LEFT TURN LANES ON TWO-LANE HIGHWAYS

A left-turn lane will be constructed to a driveway approach that will allow the turning vehicles to decelerate and to enter the approach safely and without creating unnecessary congestion to highway through traffic. A left turn lane will be required when one or more of the following criteria is met:

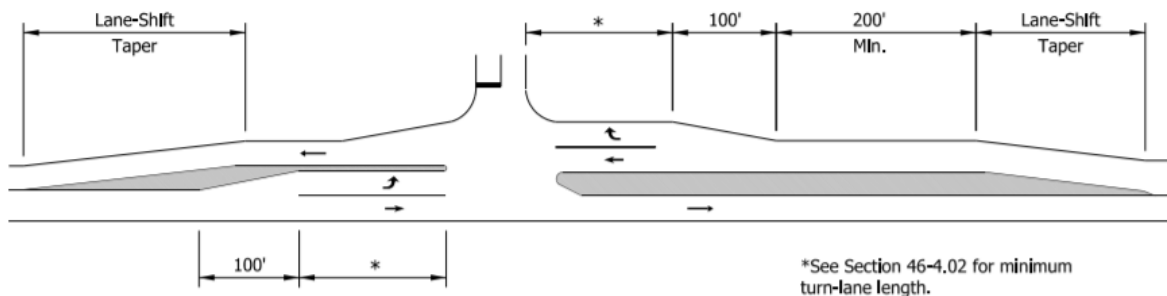
- At each intersection on an arterial, where practical
- At each intersection on a divided urban or rural highway with a median wide enough to accommodate a left-turn lane, provided that adequate spacing exists between intersections
- At an unsignalized intersection on a 2-lane urban or rural highway that satisfies the criteria shown in Figure 16.1, Volume Guidelines for Left-Turn Lane on a Two-Lane Highway
- At an intersection where a capacity analysis determines that a left-turn lane is necessary to meet the level-of-service criteria, including multiple left-turn lanes
- At a signalized intersection where the design-hour left-turning volume is 60 vehicles per hour or more for a single turn lane, or where a capacity analysis determines the need for a left-turn lane
- For uniformity of intersection design along the highway if other intersections have left-turn lanes in order to satisfy driver expectancy
- At an intersection where the accident experience, traffic operations, sight distance restrictions (i.e., intersection beyond a crest vertical curve), or engineering judgment indicates a significant conflict related to left-turning vehicles or
- At a median opening where there is a high volume of left turns, or where vehicular speeds are 50 mph or higher

Left turns lanes should be completed within accordance of the Indiana Design Manual, Section 46-4.01 ([http://in.gov/indot/design\\_manual/files/Ch46\\_2013.pdf](http://in.gov/indot/design_manual/files/Ch46_2013.pdf))

Operating Speed (mph)	Opposing Volume (veh/h)	Advancing Volume (veh/h)			
		5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
40	800	330	240	180	160
	600	410	305	22	200
	400	510	380	275	245
	200	640	470	350	305
	100	720	515	390	340
50	800	280	210	165	135
	600	350	260	195	170
	400	430	320	240	210
	200	550	400	300	270
	100	615	445	335	295
60	800	230	170	125	115
	600	290	210	160	140
	400	365	270	200	175
	200	450	330	250	215
	100	505	370	275	240

**TABLE 17.1: VOLUME GUIDELINES FOR LEFT-TURN LANES ON A TWO-LANE HIGHWAY**

The design of the channelized left turn lane will have an appearance as shown in Figure 17.2. ([Indiana Design Manual, Figure 46-4M](#))



Design Speed (mph)	Lane-Shift Taper Rate
20	10:1
25	15:1
30	20:1
40	25:1
45	45:1
50	50:1
55	60:1
65	65:1
70	70:1
75	75:1

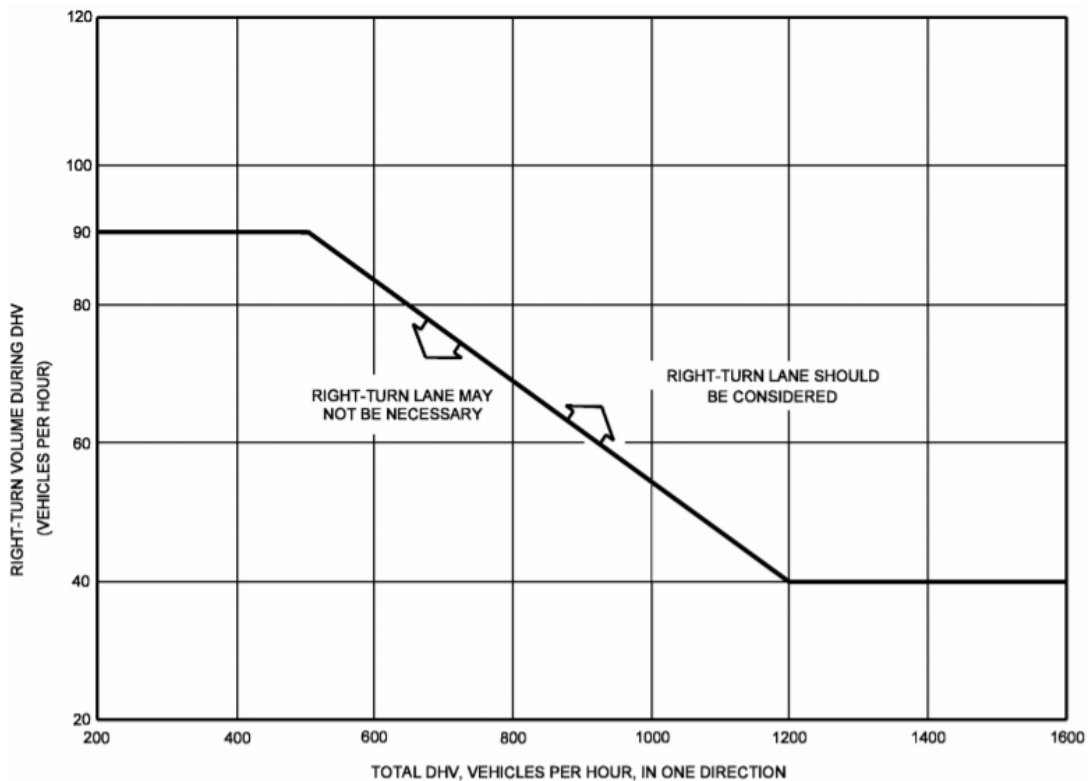
**FIGURE 17.2: CHANNELIZED LEFT TURN LANE FOR TWO-LANE HIGHWAY**

The decision on whether to use either a channelized left turn lane or a passing blister should be based on accident history, right-of-way availability, through- and turning-traffic volumes, design speed, and available sight distance. A channelized left-turn lane should be provided if the left-turning volume is high enough that a left-turn lane is warranted as discussed in Indiana Design Manual Section 46-.01

## RIGHT-TURN LANES ON FOUR-LANE HIGHWAYS

A right-turn lane will be constructed to a driveway approach that will allow the turning vehicles to decelerate and to enter the approach safely and without creating unnecessary congestion to highway through traffic. A right turn will be required when one or more of the following criteria is met:

- On rural or urban highways where traffic satisfies the criteria in Figure 17.3.
- Where a capacity analysis determines a right-turn lane is necessary to meet the level-of-service criteria.
- Where crash data, existing traffic operations, sight distance restrictions (i.e., intersection beyond a crest vertical curve), or engineering judgment indicates a significant conflict related to right turning vehicles.



*Figure is applicable only on highways with a design speed of 50 mph or greater.*

**FIGURE 17.3: GUIDELINES FOR RIGHT TURN LANES ON FOUR-LANE HIGHWAY**



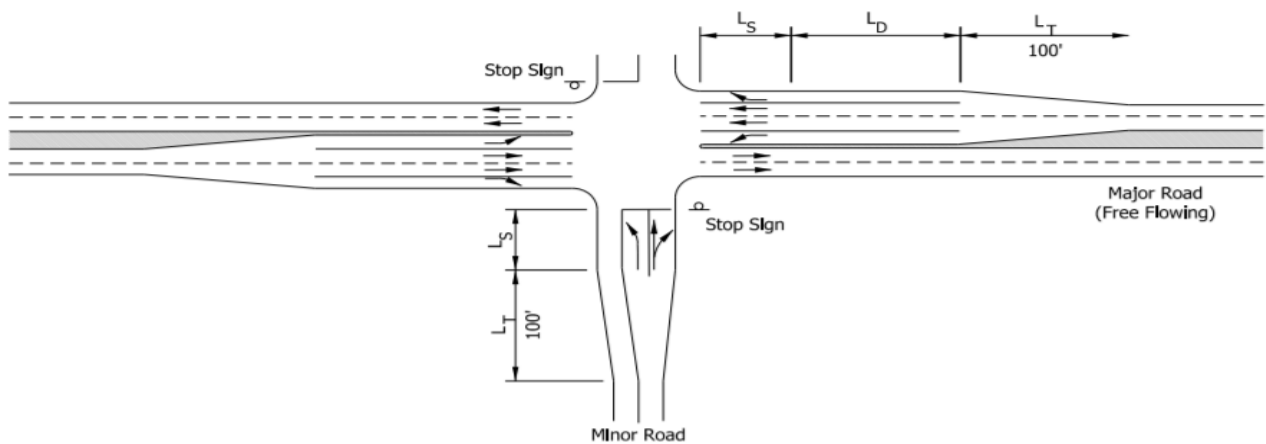
## LEFT TURN LANES ON FOUR-LANE HIGHWAYS

A left-turn lane will be constructed to a driveway approach that will allow the turning vehicles to decelerate and to enter the approach safely and without creating unnecessary congestion to highway through traffic. A left turn will be required when one or more of the following criteria is met:

- On rural or urban divided highways where median width is equal to or greater than 24 feet, regardless of traffic volume.
- Where an approach is constructed opposite an existing T-intersection making it a four-legged intersection (required for both approaches).
- Where a capacity analysis determines a left-turn lane is necessary to meet the level of service criteria.
- Where crash data, existing traffic operations, sight distance restrictions (i.e., intersection beyond a crest vertical curve), or engineering judgment indicates a significant conflict related to right turning vehicles.

## DESIGN OF TURN LANES

The design of the approach including the right turn lane will have an appearance as shown in Figure 17.4. ([Indiana Design Manual; Figure 46-4 I](#))



NOTE: The schematic of the major road (free flowing) also applies to all legs of a signalized intersection.

KEY:  $L_T$  = Taper Length (100' or more)  
 $L_D$  = Deceleration Length  
 $L_S$  = Storage Length

**FIGURE 17.4: TURN LANES**

**TABLE 17.2: FUNCTIONAL LENGTH OF TURNING LANE**

Classification	Functional Length
Rural Arterials	$L_T + L_D + L_S$
Urban Arterials Other Facilities Stop or "T" Facilities	$L_T + L_D + L_S$ (Desirable) $L_T + L_S$ (Minimum)

*L<sub>D</sub> is a consideration only at a free-flowing leg of a stop-controlled intersection or signalized intersection, or at a free-flowing turning roadway with a turn lane.*

**Taper Length (L<sub>T</sub>):** For tangent approaches, INDOT's practice is to use a 100 foot straight-line taper at the beginning of the auxiliary turn lane, or a 150-foot straight-line taper at the beginning of dual turn lanes for an urban street. On curvilinear alignments, the entrance taper should typically be designed with a constant rate of divergence throughout the curve. With all alignments, the entrance taper should at least be 50 feet.

**Storage Length of Unsignalized Intersections (L<sub>s</sub>):** The recommended storage lengths at unsignalized intersections for right- and left- turn lanes are provided in the Table 17.2. ([Indiana Design Manual, Figure 46-4L](#))

**TABLE 17.3 STORAGE LENGTH FOR UNSIGNALIZED INTERSECTION**

Turning DHV (vph)	Storage Length, L <sub>s</sub> (ft)
60 or less	50 to 75
61-120	100
121-180	150
180 or more	200 or greater

### Storage Length for Signalized Intersections ( $L_s$ ):

For a signal cycle of less than 2 minutes, the storage length should be based on two times the average number of vehicles that would store per cycle during the design hour. For a signal cycle of 2 minutes or more, the storage length should be based on 1.5 times the average number of vehicles that would store per cycle during the design hour. Average vehicle length is assumed to be 20 feet.

### Length of Deceleration ( $L_D$ ):

For rural facilities, the deceleration distance,  $L_D$ , should meet the criteria given in Table 17.3. These values should be adjusted for grades and are given in Table 17.4. ([Indiana Design Manual Figure 46-4J](#)) This distance is desirable on an urban facility. However, this is not always feasible. Under restricted urban conditions, deceleration may have to be accomplished entirely within the travel lane. For this situation, the length of turn lane will be determined solely on the basis of providing adequate vehicle storage, i.e.,  $L_D = 0$  ft.

See Indiana Design Manual Chapter 53, Figure 53-2; Geometric Design Criteria for Rural Arterial for passing blister and right- and left-turn lane designs.

**TABLE 17.4: DECELERATION DISTANCE FOR TURN LANE**

Design Speed (mph)	Desirable $L_D$ , Full-Width Auxiliary Lane $L_D$ (ft)
60	530
55	480
50	435
45	385
40	320
35	280
30	235
25	200

**TABLE 17.5 GRADE ADJUSTMENT FACTORS**

<b>Grade Adjustment Factor for Downgrade, <math>G_d</math></b>				
$0 \leq G_d < 2$	$2 \leq G_d < 3$	$3 \leq G_d < 4$	$4 \leq G_d < 5$	$5 \leq G_d \leq 6$
1.00	1.10	1.20	1.28	1.35
<b>Grade Adjustment Factor for Upgrade, <math>G_d</math></b>				
$0 \leq G_d < 2$	$2 \leq G_d < 3$	$3 \leq G_d < 4$	$4 \leq G_d < 5$	$5 \leq G_d \leq 6$
1.00	0.95	0.90	0.85	0.80

*Note: The grade-adjustment factor multiplied by the length  $L_D$  provided above will provide the deceleration-lane length adjusted for grade. The adjustment factor applies to each design speed.*

## SECTION 18: PASSING BLISTER ON TWO-LANE HIGHWAYS

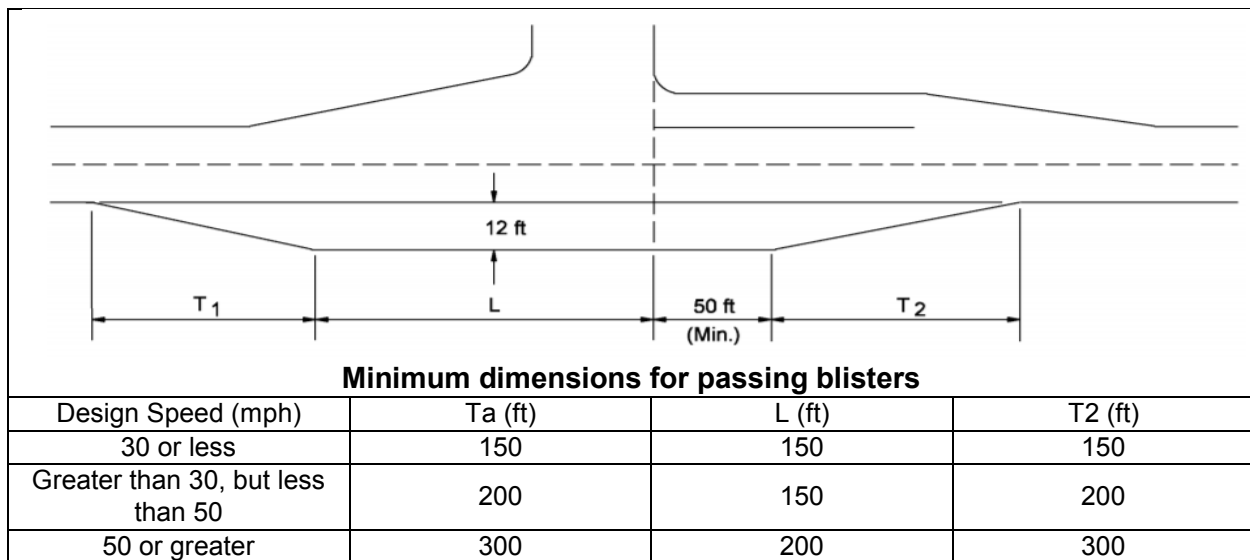
On two-lane highways with a design year ADT of 5,000 or greater- If the traffic does not warrant a dedicated left turn lane, the construction of a passing blister should be considered to relieve congestion due to left-turning vehicles.

On two-lane highways with a design year ADT less than 5,000, the construction of a passing blister should be considered only if one or more of the following criteria is met:

There are 20 or more vehicles turning into the driveway during the design hour.

Accident reports or site evidence (such as skid marks in the through lane displaying emergency braking) indicate potential problems with vehicles turning into driveway.

The design of passing blister will include appropriate treatments to drainage, side slopes, and other private or commercial approaches within the area disturbed by the passing blister construction. Where adequate right-of-way width to construct the passing blister is not available, the conditions will be fully identified, explained, and documented as a part of the permit application package. Figure 18.1 illustrates and provides the design criteria for a passing blister. An alternative design should be considered if successive passing blisters overlap each other or are within close proximity to each other. ([Indiana Design Manual, Figure 46-4O](#))



*Note: For shoulder widths adjacent to the passing blister, see auxiliary widths in Chapters 53 and 55 of the Indiana Design Manual.*

**FIGURE 18.1: TYPICAL PASSING BLISTER FOR A TWO-LANE HIGHWAY**

## SECTION 19: PAVEMENT REQUIREMENTS

All commercial driveways will be constructed of a hard surface of either hot mix asphalt (HMA) or concrete from the edge of the mainline pavement to the state right-of-way line. Residential driveways may be gravel and field entrances may be stabilized soil. Care should be taken in the design of parking areas and frontage roads to alleviate possible tracking of gravel or debris onto the mainline pavement.

The cross slope or crown of driveways and turn lanes should be 2 percent for HMA pavement or concrete pavement. A compacted shoulder is required adjacent to all commercial driveways and added lanes. The shoulder will be constructed a minimum of 4 feet wide and 6 inches thick. The slope of the shoulder should be 6 percent.

If the existing shoulder is HMA, then the new shoulder should also be HMA with the thickness of 5 inches. The new shoulder should match the existing width with a slope of 4 percent.

When a turning lane/auxiliary lane/passing blister is required, INDOT prefers the added lane(s) be constructed out of the same material used for the mainline pavement resulting in a homogenous pavement surface. In addition, the depth of the pavement materials should match the existing mainline pavement. Where the taper of a proposed driveway will create hazardous and erratic traffic movements because of its proximity to an adjacent similar taper, the entire area between said tapers must be paved thus forming a continuous full lane between the approaches of which said tapers are a part.

When HMA is used, INDOT 2018 Standard Specifications Section 401 and or 402 should be followed. (<http://www.in.gov/dot/div/contracts/standards/book/sep17/sep.htm> )

When HMA is used, the pavement should be of HMA type C. HMA type B may be proposed as an alternative with explanation.

All pavement joints must have joint sealant and joint adhesive applied as per Indiana Design Manual.

If it is impractical to construct a homogeneous pavement surface, the abutting edge of the existing mainline pavement will have as smooth as possible interface with the new pavement (i.e., saw cut straight line and correct joint sealant used between the driveway and state route). A pavement design in accordance with [Indiana Design Manual Chapter 304 Comprehensive Pavement Analyses](#) may be required for added lanes.

All materials and their placement should be in accordance with current INDOT's Indiana Design Manual.

The following are the pavement sections that should be used with the respective vehicular traffic.

**TABLE 19.1: PAVEMENT CRITERIA VS RESPECTIVE VEHICULAR TRAFFIC**

<b>Vehicular Traffic Level</b>	<b>Desired</b>	<b>Minimum</b>
Residential Driveways	See Standard Drawing <a href="#">E 610-DRIV</a>	5 inches compacted aggregate
Field Entrances	See Standard Drawing <a href="#">E 610-DRIV</a>	Graded stabilized soil
Turn Lanes	Pavement design IAW IDM Chap. 304	Geotechnical Report is required for sub-grade treatment recommendation
Passing Blisters	Pavement design IAW IDM Chap. 304	Geotechnical Report is required for sub-grade treatment recommendation
Mailbox Turnouts	See Standard Drawing <a href="#">E 610-MBAP</a>	See reference
Commercial Driveways	See Standard Drawing <a href="#">E 610-DRIV</a>	See reference
Commercial Major & Minor Approach Crossover	Hot Mix Asphalt (HMA) Concrete	See Standard Drawing <a href="#">E 610-DRIV</a>
Commercial Sub-Minor & Private Approach Crossover	Hot Mix Asphalt (HMA) Concrete	See Standard Drawing <a href="#">E 610-DRIV</a>

*NOTE: Concrete pavement may be reinforced with wire mesh, steel reinforcement, or fiber additives.*

## SECTION 20: INTERSECTION ANGLE

The angle of intersection should be 90 degrees from the tangent centerline of the driveway approach at the intersection of the centerlines. The angle of intersection constructed may be in a range from 70 degrees to 110 degrees if there are field conditions that make 90 degrees not feasible. The angle of intersection may be greater if traffic is directional (i.e., one way in or one way out) and there is no conflict in traffic movement patterns. See [Indiana Design Manual 46-1.02](#)



## SECTION 21: APPROACH GRADE

The profile grade of the approach from the edge of the pavement will slope down and away at the same rate as the highway shoulder grade. It will be constructed in a manner that no surface water will drain onto the highway pavement. See INDOT Standard Drawing 610-DRIV for approach grade information. ([INDOT Standard Drawings](#))

## SECTION 22: DRAINAGE

The applicant will provide drainage information, including development site plans and drainage calculations showing existing and proposed drainage patterns (including existing contours), to INDOT with proof that there are no adverse effects to drainage patterns in the vicinity caused by the development. Any increase of water flow to the right-of-way will be fully identified and explained.

In order to ensure that drainage information is being fully provided, the applicant will complete the [INDOT Driveway Permit Drainage Checklist](#). A copy of this checklist will be included in the submittal to INDOT.

If the proposed development would result in an increase of flows to the state right-of-way, the minimum requirement is that the 2 percent Exceedance Probability (EP) developed property run-off-rate will not exceed the 10 percent EP undeveloped property run-off-rate. Thus, the entire 2 percent EP run-off will be detained on the property and released at the 10 percent EP undeveloped property run-off rate. These criteria will be followed unless the development is within the jurisdiction of a local agency that has a more restrictive ordinance. In addition, the 1 percent EP developed property run-off-rate will not exceed the 1 percent EP undeveloped property run-off-rate.

The requirement of detention may be waived only if it can be demonstrated to INDOT's satisfaction that the development drains to an adjacent stream of adequate capacity to convey the augmented and future development drainage.

Detention structures and means of discharge will be adequately presented and explained on plans and in calculations provided to INDOT. Absolutely no detention is allowed on INDOT right-of-way.

Metal orifice plates will not be used for the control structures. The correct method is to install a section of pipe of the appropriate size to restrict the flow. The rational method for detention design may be used for developments that are 2 acres or less in total size. Detention analysis for developments larger than 2 acres will be performed using a method that generates hydrographs for both inflow and outflow. If the proposed

development will utilize chemicals or other pollutants that could constitute an illicit discharge, the proposed design will include appropriate measures to prevent the release of these materials onto INDOT right-of-way.

The minimum-size opening for all drainage structures crossing under interstate routes and state routes with more than two lanes will be 36 inches in diameter for round pipes or 7.4 square feet for deformed pipes. The minimum size opening for all drainage structures crossing under two-lane routes will be 15 inches in diameter for round pipes or 1.6 square feet for deformed pipes. The minimum pipe sizes under driveway approaches will be 15 inches in diameter for round pipes or 1.6 square feet for deformed pipes. All pipes with diameters from 15 inches to 36 inches will have pipe end sections; pipes with diameters of 42 inches and greater will have concrete anchors. See [Standard Drawing series 715](#).

INDOT uses the following flood exceedance probabilities for evaluating roadway serviceability for any type of drainage structures on a highway.

**TABLE: 22.1: FLOOD EXCEEDANCE PROBABILITIES**

Drainage Structure Type	Exceedance Probability (EP)
Freeways	1%
Ramps	1%
Non-Freeway, four or more lanes	1%
Two-Lane facility, AADT > 3000 vpd	4%
Two-Lane facility, 1000 < AADT ≤ 3000 vpd	10%
Two-Lane facility, AADT ≤ 1000 vpd	10%
Driveways	10%
Side Ditches	1%

All of the drainage facilities in the proposed development that may impact INDOT right-of-way will be designed to meet these serviceability levels. Storage volumes that may be available in the roadway side ditches will not be considered in evaluating whether the required serviceability level will be met. Adjustments to existing highway storm sewer structures may be necessary, such as the relocation of an inlet displaced by a driveway approach. The relocated structure will be compatible with the other structures servicing that segment of highway. For example, pipes will not be smaller than structures upstream from their location.

[Part 2 of the Indiana Design Manual \(IDM\)](#) contains considerable information about design criteria for drainage structures. Any aspect of the project drainage to INDOT facilities that is not specifically covered in this section of the permit manual will be designed in accordance with the IDM. Also, [Standard Drawing series 720](#) contains the design information for drainage structures commonly used along highways.

## SECTION 23: CURBS

Approaches located along a curbed highway will also be suitably curbed. There are alternative types of curbs and the applicant will match the predominant curb design that exists along the highway. The curb treatment at the approach should be compatible with that used at other approaches in the vicinity. If there is no other existing curb in the area, the proposed curb should be placed 2 feet from the edge of pavement.

Various types of curbs in use along highways are found in [INDOT Standard Drawing 605](#). It is recognized that conditions may require dimensions different from those shown on that sheet and that engineering judgment will be used to satisfactorily reconcile differences.

There are various treatments of curbs at approaches that may be acceptable. Sidewalks will be included in the approach design as needed and will have a means of accommodating handicapped persons. [See Section 7](#) in this document.

## **SECTION 24: CHANNELIZING ISLANDS**

Major driveways into developments such as shopping centers should be constructed to prevent cross-traffic movement of internal traffic within 100 feet from the highway edge of pavement. The design of an island should consider site-specific functions, including definition of vehicular path, separation of traffic movements, prohibition of movements, protection of pedestrians, and placement of traffic-control devices. This may be accomplished by the use of a raised island. The width of the island will be added to the recommended values for the width of approach. Islands will have a minimum width of 4 feet and a maximum width of 16 feet. The nose of the island will be set back six to 10 feet from any existing highway curb line, depending on the turning radius needed for a smooth ingress and egress to the driveway. ([Indiana Design Manual, Section 46-9.0](#))

Traffic islands may also be used at intersections to guide traffic into proper channels through the intersection area. Channelization is generally employed to prohibit specific movements, to regulate traffic and indicate proper use of the intersection, to separate conflicts, to favor predominant turning movements, and to protect pedestrians. Channelizing islands should be installed when the intersection size, physical characteristics, or complexity is of such a nature that their use will eliminate or reduce unnecessary or undesirable conflicts and hazards to motorists and pedestrians, as well as disorder and confusion in traffic flow.

A driveway channelizing island may be installed to discourage left-turn maneuvers. If one is installed in a driveway throat at its intersection with a roadway, then the channeling island will help to restrict selected left-turn movements and limit the basic crossing conflicts. See Appendix 4 of the Indiana Department of Transportation's Access Management Guide for this and other retrofit tools. ([INDOT Access Management Guide](#))

## SECTION 25: MEDIAN OPENINGS (CROSSOVER)

A median crossover may be desirable for high volume traffic generators such as shopping centers, industrial plants, industrial parks, residential projects, and similar developments. It will be the burden of the applicant to prove that a median opening would be to the best interest for the motoring public. A crossover should not be considered unless it meets the one of the following minimum requirements:

1. It is located more than 400 feet from an existing median opening and can be proved that its construction would improve the safety characteristics of the road for the motoring public
2. It relocates an existing median opening and still maintains the minimum 400 feet clear distance to the next median opening
3. There is sufficient room for standard turning lanes and recovery tapers and it will function properly

It should be noted that a median opening is not a property right and can be removed at any time if INDOT considers it a safety hazard.

The need for a median opening will be determined in accordance with Indiana Design Manual [Chapter 46-8.01\(01\)](#). Figures 46-8A through 46.8E are particularly relevant.

Median openings will be designed in accordance with Indiana Design Manual [Chapter 46-8.01\(02\)](#).

Also see Indiana Department of Transportation [Standard Drawings E610-PRCO-01-07](#).

## SECTION 26: MAILBOX TURNOUTS

Mailbox turnouts should be provided in the driveway approach permit applications. As practical, mailboxes should be grouped and turnouts combined with the driveway approach pavement. The mailboxes should be placed 2 feet center-to-center, and the turnout lengthened to accommodate the grouping.

Mailbox supports will not be larger than a 4 inch square timber post, a 2.5 inch standard wall pipe, or a section having similar breakaway characteristics. Where a guardrail exists, the support will be placed behind the guardrail.

Specific mailbox design and location should be consistent with the [Indiana Design Manual Section 51-11](#)

Acceptable mailbox turnout pavement design is given in INDOT EPS Private Approach Reference Worksheet. ([http://www.in.gov/indot/files/Private\\_Driveway\\_Worksheet.pdf](http://www.in.gov/indot/files/Private_Driveway_Worksheet.pdf) )

Acceptable geometric designs for mailbox turnouts are shown in [Standard Drawings 610-MBAP](#).

## SECTION 27: UTILITY PULL-OFFS

Utilities needing access to appurtenances placed on the state right-of-way should provide an adequate and safe pull-off area. The pull-off should be designed to allow service vehicles ample room to exit the highway travel lane completely. It should also be wide enough to allow vehicles to maneuver off of the highway in a manner so that they do not back onto or off of the highway travel lanes.

Refer to INDOT [Standard Drawings 610-DRIV](#). Specifically, 610-DRIV-05 Section B-B for cross slopes, 610-DRIV-06 for approach grades, and 610-DRIV-07 for general notes.

## **SECTION 28: PARKING**

It is necessary and important that each roadside business establishment provide sufficient parking or storage space to prevent the storing or backing-up of vehicles on the highway right-of-way. Such parking and storage space is particularly needed for businesses such as restaurants, truck terminals, drive-in banking, etc., where a number of vehicles enter and leave the area at one time. When the parking and storage area is inadequate - or buildings or other installations do not conform to the setback dimensions set forth in these regulations - the driveway or driveways will be located and constructed so as to prevent as much as possible the storage or backing-up of vehicles on the highway right-of-way.

Where there are one or more driveways to a business establishment located on the corner of an intersection, parking will be prohibited along each roadway abutting the business establishment for 30 feet from the frontage boundary line at the intersection or between the intersection and the nearest driveway, whichever is the lesser distance.



## **SECTION 29: DETERMINATION OF INTERSECTION CONTROL TYPE**

Traffic-control methods and intersection geometry may vary from driveway to driveway based on turning volumes, design speed, intersection geometry, location, topography, desired type of operations, and safety considerations. Traffic at most driveway intersections of small developments will be one-way stop or two-way stop controlled full access intersection. The analysis of the traffic impact of the proposed traffic generated by the development at the intersection is essential to determine what type of traffic control or intersection type and lane configuration may be necessary. The following list of intersection traffic control or intersection types may be considered when evaluating traffic control alternatives for an existing or proposed intersection that is being impacted by new or additional traffic of a proposed development.

- Two-way stop.
- All-way stop intersection (typically a four-way stop) .
- Partial access intersection (i.e. right-in right-out, right-in only, right-out only etc.).
- Traffic-control signal.
- Roundabout intersection.
- J-Turn, Michigan Left, RCUT or other median U-turn type intersection.
- Other alternative type intersection design.

### **STOP-CONTROLLED INTERSECTIONS**

Most driveway intersections will be stop controlled. Many of these intersections will require traffic on the minor roadway (the driveway) to stop while traffic on the mainline does not have to stop (two-way or one-way stop control). In some cases however, the traffic on the side street is high enough and the volume on the mainline is low enough that an all-way stop should instead be considered. The installation of an all-way stop will only be allowed only if the criteria described in Section 2B.07 of the IMUTCD are met, and if the introduction of the stop condition on the mainline will not have a negative impact on corridor continuity, safety, or mainline LOS. INDOT may deny requests for all-way stop controlled intersections.

### **PARTIAL-ACCESS INTERSECTIONS**

As discussed elsewhere in this manual, due to the proximity of a driveway to another intersection or because of some other geometric factor, full access cannot always be allowed for a specific driveway. A partial access driveway may sometimes still be allowed in these locations. A partial access driveway is a driveway that physically prohibits one or more turning movements to or from the driveway. The most common type of partial access intersection is the right-in, right-out intersection. The right-in, right-

out intersection prevents left turns to or from the driveway and through movements from the driveway. Driveways located within the impact area of a major intersection will in most cases be required to be right-in, right-out.

In all cases where a partial access intersection is required, a raised median or island will be required to channelize traffic. A flush painted island will not be sufficient. A raised island can be placed at the mouth of the drive, or a raised median may be placed down the center of the mainline route. Indiana Design Manual 46-9 has more information on the design of channelizing islands.

Partial-access intersections are typically stop controlled. A regulatory sign will be required for all prohibited movements.

## **ALTERNATIVE INTERSECTIONS**

All intersections are planned points of conflict where vehicles cross paths or change directions. Any point where vehicles cross path is an opportunity for a crash to occur. Traditional intersection types provide greater mobility but also have more conflict points. Most alternative intersection designs contain fewer conflict points than conventional intersections. Applicants are encouraged to consider alternative intersections designs when choosing the traffic-control method for their driveway intersections.

There are many types of alternative intersections being used in around the country. For driveway applications the most common types are roundabout and median U-turn intersections. Different types of alternative intersections work best for different applications. The INDOT Intersection Decision Guide provides guidance on selection the intersection traffic control method based on numerous factors.

## **TRAFFIC-CONTROL SIGNAL**

There may be an immediate or future need for a traffic signal at the access point for high-volume traffic generators such as shopping centers, industrial facilities, residential projects, and similar developments.

When properly used, traffic signals are valuable devices for the control of vehicular and pedestrian traffic. A properly used traffic signal can increase the capacity of an intersection or corridor through the orderly movement of traffic while reducing the frequency of certain types of crashes. Traffic signals can also be used to interrupt heavy traffic at intervals to permit traffic on the side street to safely turn or cross.

However, traffic signals are often considered a panacea for all traffic problems at intersections. This belief can lead to traffic signals being requested at locations where

they are not needed. Since vehicular delay and the frequency of some types of crashes can be greater under traffic signal control than under stop-sign control, INDOT will not approve any requests for traffic signals that do not meet one or more of the signal warrants (as discussed below). Additionally, even when a signal warrant has been met, consideration should still be given to alternative traffic-control methods other than the installation of a traffic signal.

Each new traffic-signal proposal should satisfy at least one or more of the primary warrants listed in IMUTCD Chapter 4C. The IMUTCD provides the criteria and procedures that should be used to determine if the warrants are satisfied. Table 4C-2 in the IMUTCD can be beneficial for predicting the need for traffic signals at future developments where the hourly traffic volumes are unknown. In addition to the IMUTCD warrants, the information in IMUTCD Section 4B regarding alternatives to traffic signals should also be considered.

When there is a future need for a traffic signal as determined by a Traffic Impact Analysis (TIA) approved by INDOT, the applicant will be required to sign a future-traffic signal covenant. Where a state-owned highway intersects a private drive or public road where large traffic volumes are generated from a private source, the private entity will be responsible for funding the design, installation and ongoing energy costs of the signal.

If and when traffic generation at and by the development meets minimum warrants for a traffic signal installation as determined by INDOT, a separate agreement will be prepared between INDOT and the applicant which will give the property owner the permission for such installation. Any current or future installation of a traffic signal will be the responsibility of the applicant or subsequent property owner(s).

The failure to sign the above-mentioned agreement(s) may result in the denial of the permit application.

A request for an Official Action should be sent to the appropriate District Traffic Engineer before installation of a proposed traffic signal. If the District Traffic Engineer concurs with the request to install a traffic signal, an Official Action will be drafted and sent to the District Deputy Commissioner for approval of the new traffic signal.

Traffic signals will be designed according to the standards laid out in Chapter 502-3 of the Indiana Design Manual and Part 4 of the IMUTCD.

INDOT retains the right to remove any traffic signal on any state-owned highway at any time at its sole discretion. A traffic signal may be required to be removed when the traffic being generated by the site has changed significantly and signal warrants are no longer met. The property owner will be notified of the removal in advance.

## SECTION 30: AGREEMENT TO EXECUTE AN ACCESS-CONTROL DOCUMENT

Limiting access to state right-of-way is a design feature. The intent is to reduce the total area of conflict (traffic movements exiting and entering roadside establishments are at variance with through highway traffic movements) by controlling and defining driveway openings. The frequency of conflicts is reduced because the number of possible conflict points is limited to legal, defined driveway openings. This enhances both the safety and capacity of the highway as preference is given to the through traffic. Points of congestion, such as major intersections or interchanges, can be kept clear and free of additional traffic introduced by driveways close to the intersection or interchange. Driveways for major development sites, which may eventually become signalized, can be better situated with respect to traffic-signal coordination. The extent and effectiveness of access control will be reflective of whether the highway section in question is in a rural, suburban, or urban environment.

In consideration for INDOT granting driveway permit(s), the applicant may be required to sign an agreement to execute an [access-control document](#) conveying the access rights for the balance property frontage owned by the applicant. This document will be recorded.

## SECTION 31: PERFORMANCE BOND

A performance bond will be required with each application for a commercial driveway to equal to the estimated cost of that part of the project occurring on the state's right-of-way, or in an amount specified by INDOT. The minimum amount of the performance bond will be \$5,000 (five thousand dollars).

A performance bond in an appropriate amount may also be required on non-commercial drives.

Following are the categories for which the bond may be waived:

- **Government agencies:** Agencies of political subdivisions (Federal, State, County, City or Town) reporting to elected official
- **Churches:** Community of religious peoples professing the same faith and observing the same ritual and ceremonies
- **Schools:** Private and public institutions providing first grade or higher education.
- **Railroad companies:** Companies regulated by the Indiana Public Service Commission while performing normal maintenance or construction activities, to railroad facilities
- **Closing existing driveways:** Any applicant whose approved permit will result in work solely for the purpose of closing existing driveway approach(es) to the state highway system from the property

These exemptions are not to be based upon the tax-exempt or non-profit status of the applicant. A person or committee of persons elected by a group of people does not necessarily qualify as a governmental agency.

The applicants who are claiming an exemption will complete the [Bond Waiver form \(SF 35483\)](#).

## **APPENDIX A: DRIVEWAY PROMULGATED RULES**

Specific Rules of the *Indiana Administrative Code (IAC), Title 105, Article 7: Permits for Highways*, has been copied for your convenience. Specifically, Rule 1, 1.5, and 2 are directly relevant to INDOT Driveway Permit Manual. Rule 3 pertains to Signs and Billboards and has not been copied here. The full version can be found at [Indiana.Gov Title 105](#).

### INDIANA ADMINISTRATIVE CODE (IAC)

#### TITLE 105

#### ARTICLE 7: PERMITS FOR HIGHWAYS

### **Rule 1: Driveway access: Applications, Standards, Designs**

#### SECTION 1: Purpose of rule

The Indiana Department of Highways is authorized to determine and establish such requirements and restrictions for driveway approaches as may be necessary to provide for the drainage of the highway, preservation of the highway and the safety and convenience of traffic on the highway. A written permit application will be considered by INDOT and, if in accordance with properly established regulations and requirements, a permit will be granted subject to appropriate conditions and provisions contained therein. All work on the permit will be performed to the satisfaction of INDOT.

#### SECTION 2: Definitions

**"Access"** means a location which allows vehicular and/or pedestrian traffic to cross the highway right-of-way line and is positioned at the connection of a driveway with the approach at the right-of-way line.

**"Applicant"** means a person, partnership, company, corporation, association, or agency making application for a permit to perform work on an approach.

**"Application"** means a formally prepared request for a permit which is presented by an applicant on a permit form to INDOT seeking permission to perform work on highway right-of-way.

**"Approach"** means a way or place improved for vehicular or pedestrian traffic on the highway right-of-way, which joins the pavement edge of the highway with a driveway or pedestrian walkway.

**"Auxiliary lane"** means a portion of the roadway adjoining the traveled way for parking, speed change, turning, storage for turning, weaving, truck climbing or for other purposes.

**"Commercial approach"** means an approach, which joins the highway with a driveway to private property used for commercial purposes and to public property.

**"Crossover"** means a paved or graded crossing in the highway median which allows vehicles to cross or to turn across the highway.

**"Department"** means the Indiana department of highways acting directly or through its duly authorized officers and agents.

**"Driveway"** means a way or place not on INDOT right-of-way which is used for vehicles.

**"Expiration date"** means the last calendar day that the valid permit is in effect and that the approach must be in compliance with all conditions of the permit.

**"Field approach"** means an approach which joins the highway with a driveway to private property that is vacant, in an unimproved condition, or a farm field.

**"Highway"** means any roadway under the jurisdiction of INDOT that is designated as a state route, a US route or an interstate.

**"Issue date"** means a calendar day that the permit is granted to the applicant.

**"Limited access facility"** means a highway especially designed for through traffic and over, from, or to which owners or occupants of abutting land or other persons have no right or easement or only a limited right or easement of direct access, light, air, or view by reason of fact that their property abuts such limited access facility or for any other reason.

**"Median"** means the portion of a divided highway separating the traveled way for traffic proceeding the opposite direction.

**"Notice"** means a certified letter from INDOT addressed to the owner(s) of the real estate stating that the approach(es) for a driveway(s) emanating from the real estate is unauthorized and providing the approximate location of the approach(es), a statement of any substandard elements of the approach(es), the action to be taken by the owner and the deadline for completing the prescribed action.

**"Permit"** means a legal document in which INDOT gives written permission to an applicant to perform work on the highway right-of-way.

**"Permittee"** means the applicant following the issuance of a permit by INDOT.

**"Private approach"** means an approach, which joins the highway with a driveway to private property having a residence, barn, private garage or other improvements and is ordinarily used only by the owner or occupant of the premises, guests and necessary service vehicles.

**"Purchased limited access"** means rights-of-way along any highway designed by INDOT to be limited access facility and whose access rights have been acquired by INDOT.

**"Right-of-way"** means all land under the jurisdiction of and whose use is controlled by INDOT.

**"Shoulder"** means that portion of the highway right-of-way contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of roadway base and surface courses. It is measured from the edge of pavement for traveled way or, if present, auxiliary lane to the intersection of the shoulder and fill or ditch slopes.

**"Title evidence"** means documentation in the form of a certified search covering a period of twenty (20) years, current title insurance or certified letter from abstractor or title insurance agent certifying fee simple ownership of the property.

**"Traffic"** means pedestrians, ridden or herded animals, vehicles, and other conveyances either singly or together while using any highway for purposes of travel.

**"Traffic control"** means devices such as signs, barricades, pavement markings and signalization used to direct traffic in safe orderly use of the highway.

**"Traveled way"** means the portion of roadway used for the movement of traffic, excluding shoulders and auxiliary lanes.

**"Unauthorized approach"** means an approach which has been constructed, reconstructed, altered or modified; which remains incomplete, or has become substandard for any reason, such as change in land use; that is not approved nor authorized to exist in its present condition, under present traffic pattern, by INDOT.

### SECTION 3: Classification of entrances and approaches

All approaches will be divided into five (5) classes as follows:

CLASS I - Private Approach - Raised curb used.

CLASS II - Private Approach - Flush shoulder only, no raised curb.



CLASS III - Commercial Approach - Raised curb used.

CLASS IV - Commercial Approach - Flush shoulder only, no raised curb.

CLASS V - Field Approach - Either raised curb or flush shoulder.

#### SECTION 4: Types of permits; limited access, commercial and private driveways

The driveway approach applications will be designated and defined as being one of the following types of permits:

Limited access driveway - Any change to an existing access, approach, and/or crossover or the construction of a new access, approach and/or crossover along a purchased or declared limited access highway.

Commercial major driveway - Any change to an existing access, approach and/or crossover or the construction of a new access, approach and/or crossover which connects the highway to private property used for commercial purposes or to a public property and which attracts enough traffic to require auxiliary lanes as determined by INDOT.

Commercial minor driveway - Any change to an existing access, approach and/or crossover or the construction of a new access, approach and/or crossover which connects the highway to private property used for commercial purposes or to a public property and which does not attract enough traffic to require auxiliary lanes as determined by INDOT.

Private driveway - Any change to an existing access, approach and/or crossover or the construction of a new access, approach and/or crossover that connects the highway to private property having a residence, barn, private garage, an improved or unimproved condition and ordinarily used only by the owner or occupant of the premises, guests and necessary service vehicles.

#### SECTION 5: Application for permit; form; fees

Application to INDOT for a permit to construct any approach connecting a driveway with any department highway or highway right-of-way, to cut any curb along a highway or construct a crossover on a highway will be made on the form as prescribed by INDOT. The form and accompanying documentation will be submitted containing as many copies as may be prescribed by INDOT. Reasonable fees for processing driveway permits may be established by appropriate department action.

## SECTION 6: New application; when required

Relocation, alteration, or remodeling of an access, approach and/or crossover, or any change in the character of the use of the access, approach and/or crossover will be considered the construction a new access, approach or crossover and an application for a permit will be required. The granting or denial of such application will be governed by the same regulations and judged by the same standards as an application for a permit for a wholly new access, approach and/or crossover.

The application will include immediately proposed and future work affecting all locations of access to the applicant's property and adjacent parcels in which the applicant holds an interest.

## SECTION 7: Parties to application; evidence of title

All applications for permits under 120 IAC 2-1 (this rule) will be made in the name of the owner of the fee simple title. All persons having any interest in the land, including but not limited to mortgagees, lessees, optionaires, lien holders, and holders of other encumbrances will join with the fee simple holder in the application. All such persons will join in the application, will sign and consent to the conditions of the application, and will be bound equally thereafter by the conditions of the permit which may be issued to the permittee.

Title evidence, will be furnished to support the signatures for driveway permit applications in the following areas:

- (A) All commercial driveway permit applications except those applications involving an existing access with no proposed change in access, use, or character.
- (B) Private driveway permit applications including field access approaches in areas along highways covered by limited access resolutions or on sections of state routes in the biennial highway improvement program.

All other allowable evidence will be at the discretion of INDOT.

If the applicant submits an application in which the title evidence does not include the signatures of all interest holders and if the application is evaluated in favor of granting the permit, the applicant must submit subsequent title evidence showing that all omitted interest holders have ceased to be interest holders or have by an addendum to the application joined the original applicant on the original application, and such subsequent title evidence or addendum must be submitted before the permit is issued.

## SECTION 8: Statement of purpose and adjacent parcels

All applications for permits will disclose the present and proposed use of the parcel for which access is requested. Any intended use of the access in conjunction with any adjacent parcel, whether owned by applicants or by others, or to be purchased or sold by the applicant, or others, will be disclosed in the application. All adjacent parcels owned or controlled by the applicants, whether intended to be used in conjunction with the requested access or not will be disclosed in the application. These disclosures are required to ensure the public a safe and convenient means of travel consistent with the right of the adjoining landowner to have access as provided by law.

## SECTION 9: Drawings and information required

All applications for permits under these regulations will be accompanied by clear drawings. One (1) set of drawings will accompany all copies of the application form. Information to be shown on drawings will include the following as applicable:

- (1) Driveway(s) and approach(es) including dimensions for width, length, angle of intersection, radii, and any other measurement necessary to show the geometrics of the driveway(s) and approach(es) drawn to an engineer's 20 or 30 scale.
- (2) Rate of slope or grade of pavement for approach(es) and driveway(s).
- (3) Type of approach and driveway pavement material (stone, concrete, or Hot Mix Asphalt (HMA) pavement including depths of lifts).
- (4) Existing drainage patterns and structures, including size and kind.
- (5) New drainage patterns, including the effect on downstream department facilities and private property, and structures including size, kind, invert pipe elevations, and inlet elevations.
- (6) Width dimension of highway right-of-way.
- (7) Width and type of highway pavement.
- (8) Highway right-of-way and applicant's property lines.
- (9) Development site plan showing parking, interior drives, buildings, and other improvements, including distance from right-of-way line to gasoline pumps.
- (10) Distance to intersecting roads, streets, railways, or crossovers within five hundred (500) feet in each direction on both sides of highway from the applicants property lines drawn to an engineer's 50 scale.

- 11) The distance to and the design of all drives on both sides of highways and in each direction, that are within five hundred (500) feet of applicants property lines drawn to an engineer's 50 scale.
- 12) The posted speed limit on highway and all traffic control equipment serving the highway, including but not limited to signalization devices, lighting, pavement markings, guardrails, and sign structures.
- 13) Proposed treatment of right-of-way area adjacent to and between approaches.
- 14) Appropriate symbols such as north arrow, direction of lane travel and direction of drainage flow, and a legend defining abbreviations and graphic representations of existing and new conditions, objects, materials, etc.
- 15) A legal description of the property to be served by the permit together with a legal description of the adjoining land owned or controlled by the applicant.
- 16) Traffic control needed during work activity displaying necessary signs, barricades, detour signs, and warning devices will be provided whenever work is to interfere with normal traffic. Traffic control must be in accordance with the Construction and Maintenance Section of the Indiana Manual of Uniform Traffic Control Devices.

#### SECTION 10: Construction and materials standards

All construction and materials used within the highway right-of-way must conform to the current Indiana state highway "standard specifications" which will be kept on file at the offices of INDOT.

#### SECTION 11: Standards and design requirements

All applications will be filed in accordance with the standards and design requirements of INDOT. The permittee will agree to perform all work on the right-of-way in accordance with such standards and design requirements of INDOT.

#### SECTION 12: Commercial applications; attestation

All applications for commercial purposes will be signed by a registered professional engineer, a registered architect, and/or registered land surveyor, attesting that the applications as proposed, conform with all department regulations, specifications and standards, except as will be noted in such attestation.

#### SECTION 13: Land use and zoning approval

Approval of a permit application will be subject to the permittee obtaining all necessary approvals involving land use from the zoning board plan commission, and/or local

governmental authorities, and will comply with all applicable laws. The issuance of any permit will in no way imply department approval of, or be intended to influence any action pending before any local board, commission or agency.

#### SECTION 14: Performance bonds

INDOT will require a performance bond to be filed with each application for a commercial driveway showing the applicant as principal in a minimum amount of five thousand (\$5,000) dollars or in an amount as specifically set by appropriate department action. Such amount will be increased in any application to equal the estimated cost of that part of the project on INDOT's right-of-way. INDOT may also require an adequate bond to be filed in any non-commercial application. Such bonds are required to insure compliance with all terms of the permit and will in case of noncompliance, provide in addition to any damages suffered thereby, all witness and court costs in collecting the same, together with any attorney's fee reasonably due, and will be released only when the work described on the permit has been completed to the satisfaction of INDOT.

#### SECTION 15: Crossovers

Permits for private or commercial crossovers will not be approved unless the applicant can prove to the satisfaction of INDOT that the location of the crossover will not be detrimental to the safety of the traveling public. The minimum recommended distance between crossovers is four hundred (400) feet.

#### SECTION 16: Adjacent tapers

Where the taper of a proposed driveway will create hazardous and erratic traffic movement because of its proximity to adjacent similar taper, the entire area between said tapers must be paved thus forming a continuous full lane between the approaches of which said tapers are a part.

#### SECTION 17: Sight distances

All approaches will be located so as to provide adequate sight distance in both directions along the highway for safe access to the highway without interfering with traffic. Under substandard visibility conditions as determined and set by INDOT, access may be granted for an alternate location that offers the least hazard and interference with traffic.

#### SECTION 18: Interference with traffic control devices

No entrance or approach will be located or constructed so as to interfere with or prevent the proper location of necessary highway signs or other traffic control devices.

## SECTION 19: Drainage requirements

All improvements authorized by the permit will not interfere with drainage of the street or highway, nor cause additional area to drain onto the right-of-way unless specifically acknowledged and allowed by the permit, nor will such improvements be constructed so as to cause drainage onto the roadway.

## SECTION 20: Authorization to proceed; objections

Upon receipt of a permit issued by INDOT, the permittee is authorized to proceed with the work covered by the permit, subject to the conditions imposed by INDOT.

In accordance with the notice requirements of IC 4-22-1-25, any objection to the conditions and provisions of an approved permit must be submitted in writing to INDOT within fifteen (15) days from the issue of the permit.

The permit does not apply to any highway right-of-way that is closed for construction purposes, except as allowed by the provision in the permit, nor to any county road or city streets.

## SECTION 21: Inspection; revocation of permit

An inspection may be conducted at any time by INDOT and a final inspection of the permit will be conducted upon completion of construction. The work covered by the permit does not comply until found to be in accordance with the plans and specifications filed in the application as amended by INDOT, together with any special conditions noted therein, and approved by INDOT. The permittee will adjust or stop operations upon direction of any police officer or authorized department employee. The permit may be revoked at any time by INDOT for noncompliance with any and/or all provisions and conditions of said permit.

The permittee will pay INDOT for any inspection costs including labor, vehicular mileage, and equipment expenses when it is necessary to assign a department employee to inspect the work. The permittee will immediately reimburse INDOT upon receipt of an itemized statement.

## SECTION 22: Noncompliance of permits without bonds

On permits not covered by a bond, work performed that is incomplete improperly performed or otherwise does not follow the conditions or provisions of the permit will be designated as "Does Not Comply". INDOT will follow procedures for corrective action, beginning with the notice action stated in 105 IAC 7-2-4(2). Permit applications for existing approaches that are denied by INDOT will be corrected by entering the same procedure in 105 IAC 7-2-4 (2).

### SECTION 23: “Limitation of access” instrument

The permittee will sign a copy of a “limitation of access” instrument, if so required by INDOT as a condition of the permit. INDOT will immediately cause said limitation of access instrument to be recorded in the appropriate county.

### SECTION 24: Notice of start of construction

The permittee will notify INDOT’s sub-district office five (5) working days prior to the start of any work activity on the highway right-of-way, of the date such work will commence. The permittee will notify INDOT’s sub-district office prior to completion of all work on the highway right-of-way of the anticipated date such work will be completed.

### SECTION 25: Traffic control

The permittee will erect and maintain all necessary traffic control signs, barricades, detour signs, and other traffic control devices required to safely direct traffic over or around the part of the highway where permitted operations are to be done in accordance with the construction and maintenance section of the Indiana Manual on Uniform Traffic Control Devices. Disruption to traffic will be kept to a minimum and will require approval of INDOT prior to beginning other work activities on the right-of-way.

### SECTION 26: Prohibited hours of work

The permitted work will not be performed on the highway right-of-way between sunset and sunrise, unless specifically allowed by special provisions to the permit. The permitted work will not be performed on the highway right-of-way during the period beginning at 12:00 noon on the last weekday preceding and continuing until sunrise on the following day; New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas.

### SECTION 27: Display of permit

The permittee will have a permit complete with drawings and special provisions on the job site at all times and will show said permit, on demand, to any police officer or department employee.

### SECTION 28: Term of permit; extension; cancellation

All work on highway right-of-way authorized by a permit must be completed within one (1) year after the permit is issued; otherwise, the permit will be canceled unless an extension is requested, in writing, by the permittee, and is approved by INDOT. The time extension will not exceed more than one (1) year beyond the original expiration date unless approved otherwise by INDOT. If a permit is canceled, a new application must be submitted and approved before the proposed work can begin. Once construction

authorized by the permit is initiated it must be completed within thirty (30) days, unless otherwise expressly approved as a special condition.

#### SECTION 29: Liability during construction

The permittee will assume all responsibility (during the time from the beginning of the work covered by any permit until final approval for the work) and will furthermore be obligated to save harmless the State for any and all injury, loss or damage occasioned to or by persons or property resulting directly or indirectly from such work; INDOT will, in its discretion, require the permittee to provide liability and indemnity insurance for the use and benefit of the State of Indiana.

#### SECTION 30: Interference with structures on right-of-way

The work authorized by the permit will not interfere with any existing structure on any department right-of-way without specific permission in writing from INDOT or other owner thereof. Any structure or traffic control device affected by the proposed construction will be relocated at the permittee's expense as directed. In the event that any buildings, railings, traffic control devices, or other structures are damaged, said cost of the removal and/or of repair due to damage will be at the permittee's expense as directed.

#### SECTION 31: Encroachment by advertising signs

The permittee will not erect or maintain any advertising sign on or over the right-of-way or any portion thereof in violation of any law.

#### SECTION 32: Change in existing access; subject to new rules

Any person, who by law, has an existing legal right of access to a state highway will as a condition of the issuance of any permit and in consideration of the same, agree that such rights of access, then existing or granted thereafter with respect to such real estate are subject to 120 IAC 2-1 [this rule] as the same may from time to time be amended by INDOT.

#### SECTION 33: Severability of rule

If any provision of 120 IAC 2-1 [this rule] or the application thereof to any person or circumstances is invalid, such invalidity will not affect the other provisions or usage of 120 IAC 2-1 [this rule], which can be given effect without the invalid provision or usage, and to this end, the provisions of 120 IAC 2-1 [this rule] are declared to be severable.



## **Rule 1.5: Developments, Traffic Studies**

### Section 1: Preliminary Notification and Warrants

Unless waived in writing by INDOT, a preliminary notification will be required to be submitted with the application for a permit for all developments that meet the following preliminary warrants for a traffic impact analysis study: Land Use Type Preliminary Warrants Residential 150 dwelling units Retail 15,000 square feet Office 35,000 square feet or 3 acres Industrial 70,000 square feet or 9 acres Educational 30,000 square feet or 250 students Lodging 120 occupied rooms Medical 46,000 square feet.

At the discretion of INDOT, upon notice from INDOT after submission of the application for a permit, a preliminary notification may be required for the following types of developments: (1) Parking garages, banks, fast food restaurants, service stations with convenience stores, or similar developments considered by INDOT to warrant special consideration due to the pattern and volume of traffic generated and the existence of high vehicle trip generation rates. (2) Mixed-use developments that cannot easily be grouped or classified under the land use types provided in subsection (a) and generate more than fifty (50) vehicle trips in the peak direction within one (1) street peak hour.

### Section 2: Preliminary Notification Requirements

In addition to the requirements of 105 IAC 7-1-9, an applicant required to provide preliminary notification under section 1 of this rule must provide an approximate description of existing and anticipated traffic conditions of the proposed development, including the following: (1) Type of development. (2) Preliminary site plan with site access points and the nearest signalized intersection in each direction. (3) A market study, if applicable. (4) Trip generation values and methods used to compute such values. (5) Any other information the applicant deems necessary or helpful to facilitate the initial meeting as provided under section 3 of this rule.

### Section 3: Initial Meeting

Upon submission of the application and preliminary notification, the applicant and INDOT will schedule an initial meeting. The initial meeting will be held no later than thirty (30) days after the submission of the application and preliminary notification that comply with the requirements of 105 IAC 7-1 and this rule.

Participants at the initial meeting will include the following: (1) The applicant or its representative. (2) One (1) or more of the following department personnel within the district in which the proposed development site is located: (A) Regulations supervisor. (B) Traffic engineer. (C) Development engineer. (3) Any other individual deemed necessary by the applicant or department personnel to facilitate the initial meeting. (c) The purpose

of the initial meeting will be to determine what further action, if any, is necessary by the applicant before a permit may be granted, including the following: (1) Whether a traffic impact analysis study is warranted and, if so, the scope and extent of such study. (2) Whether a traffic operations study is warranted and, if so, the scope and extent of such study. (3) If the necessity for a traffic impact analysis study or a traffic operations analysis study cannot be determined, the information necessary from the applicant to make this determination. (4) All other issues and requirements the applicant must address before INDOT may grant a permit. (d) Within thirty (30) days of the initial meeting, a memorandum of understanding will be prepared by the applicant or its representative detailing the actions to be performed by the applicant as determined at the initial meeting. The applicant may not proceed with any action until INDOT has approved in writing the memorandum of understanding. The memorandum of understanding will include all pertinent issues discussed at the initial meeting and a description of any study to be conducted, including the following: (1) Issues to be addressed in the study. (2) Limits of study area. (3) Study assumptions. (4) Data sources. (5) Contents of any report to be generated.

#### Section 4: Traffic Impact Analysis warrants

Unless waived by INDOT at the initial meeting or subsequent to the initial meeting, in writing, an applicant subject to this rule will be required to conduct, at the applicant's expense, a traffic impact analysis study if one (1) or more of the following warrants are met: (1) Warrant 1, land use intensity, the development generates more than one hundred (100) vehicle trips in the peak direction within one (1) street peak hour. (2) Warrant 2, level-of-service, either: (A) the traffic generated by the proposed development causes the level-of-service of the adjacent streets and intersections to drop to "C" or lower; or (B) the nearby intersections currently operate at level-of-service "D" or lower. Indiana Administrative Code Page 15 PERMITS FOR HIGHWAYS (3) Warrant 3, roadway modifications, the proposed development: (A) is expected to significantly impact a roadway segment identified in the transportation improvement program; or (B) includes modifications to the roadway system, such as: (i) the addition of lanes to accommodate site-generated traffic, exclusive turning lanes, acceleration/deceleration lanes, median openings; and (ii) the installation of traffic signals and other traffic control devices. (4) Warrant 4, special cases, it is determined at the initial meeting or from a preliminary study that the traffic generated from the proposed development will create safety, operational, or other traffic problems.

This section will not be construed to limit the conditions by which INDOT may require a traffic impact analysis study

#### Section 5: Traffic operating analysis study, conditions requiring study

Unless waived by INDOT at the initial meeting or subsequent to the initial meeting, in writing, an applicant subject to this rule will be required to conduct, at the applicant's

expense, a traffic operations analysis study if one (1) or more of the following conditions are met: (1) The development generates enough turning movements into or out of the development that an auxiliary lane, such as an acceleration/deceleration lane, passing blister, or separate turn lane is required. (2) A request is made for a new or modified driveway near an intersection or interchange. (3) A request is made for a new or modified driveway near an intersection or interchange. (4) There exists a sight distance limitation or a high accident location near the site. (5) A request is made for median openings.

This section will not be construed to limit the conditions by which INDOT may require a traffic operations analysis study

#### Section 6: Traffic impact analysis and traffic operations analysis study, qualifications of preparer and certification.

A traffic impact analysis or traffic operations analysis study required under this rule must be prepared by or under the supervision of a registered professional engineer with experience in traffic engineering operations who will provide certification in the following or similar form: "I certify that this Traffic Impact Analysis has been prepared by me or under my immediate supervision and that I have experience and training in the field of traffic and transportation engineering (signed) John O. Smith, P.E. Indiana Registration 12345".

#### Section 7: Review of traffic impact analysis and traffic operations analysis

Upon completion and submission of a traffic impact analysis or traffic operations analysis study required under this rule, the study will be reviewed by INDOT. The review will be conducted by department personnel trained and experienced in traffic impact and traffic operations study methodology, land use planning, and traffic engineering, safety, and operations.

A formal review of the traffic impact analysis or traffic operations analysis study will include the following findings: (1) Those analyses and conclusions that are acceptable. (2) Those analyses and conclusions that are not acceptable. (3) The acceptability of recommended site access provisions and roadway improvements. (4) A list of required improvements that might be considered to mitigate impacts of the development.

Upon completion of the formal review, INDOT will submit to the study preparer and the applicant its findings and either: (1) its acceptance of the study; or (2) a request for revisions clearly specifying the additional information required before the study may be accepted.

The study preparer will submit any additional report in response to a request for revisions in the form of an addendum to the original study unless a fully revised report is requested.

## **Rule 2: Unauthorized Approaches to Driveways**

### SECTION 1: Purpose of rule

The Indiana Department of Highways will control access and regulate work performed on approaches to driveways on highway right-of-way. This control and regulation will provide for the preservation of the highway, and the safety and convenience of traffic on highway. The measure of public benefit will be the guide in determining the priorities and procedures in correcting any unauthorized approaches to driveways.

### SECTION 2: Documentation of approaches; corrective action required

INDOT will control access along highways through inspection and by properly documenting planned and existing approaches for driveways and pedestrian walkways. Any construction, reconstruction, alteration, or modification to an approach by person(s) other than INDOT will be administered through 120 IAC 2 [this article], Permits. Existing approaches, which may be in either a complete or incomplete condition and that have not been reviewed and authorized by INDOT, will be considered unauthorized, undocumented and subject to corrective action. Existing approaches which were originally authorized by INDOT but which have become substandard for any reason, such as a change in land use that adversely affects traffic patterns, will also be considered unauthorized, undocumented and subject to corrective action.

The permit process will be the normal means of taking corrective action. The property owner(s) and/or the person(s) responsible for unauthorized approach will make application for a written permit. All remedies available through the permit process will be used to obtain full compliance of work on the approach.

Under circumstances where INDOT is unable to obtain the cooperation of the property owner(s) and/or the person(s) responsible for an unauthorized approach through the permit process, corrective action will be taken in accordance with procedures contained in 120 IAC 2-2 [this rule].

### SECTION 3: Priority of corrective actions

INDOT will assign unauthorized approach work to its staff in accordance with manpower availability and will first undertake corrective action for the more serious situations as determined by INDOT.

## SECTION 4: Procedures for corrective action

Corrective action will normally be the construction, reconstruction, alteration or modification of the approach to standards acceptable to INDOT, or the complete removal of the approach and restoration of the highway right-of-way. The decision concerning the choice of a remedy remains with INDOT. The following procedure will be used by INDOT to obtain a suitable corrective result.

- 1) INDOT will contact the responsible person(s) for the unauthorized approach, including the owner of real estate, and advise them they are to begin corrective action by preparing and submitting a permit application. INDOT will state a specific date for receipt of the application, but in no case will the time to submit the application be less than fifteen (15) calendar days from the date of contact. If an application is received within the specified time period, INDOT will proceed to the requirements in 105 IAC 7-1.
- 2) If the person(s) responsible for the unauthorized approach has not responded within the specified time and if the application for the permit was not received by INDOT, a notice will be given to the owner(s) of the real estate from which the unauthorized approach emanates by certified mail and will be sent to the owner's last known address. A copy of the notice will be sent to the occupant of the real estate and a copy of the notice will be posted upon said real estate in a conspicuous place. The notice will specify the time within which the owner(s) of the real estate will have completed corrective action for the unauthorized approach, but in no case will the period of time specified be less than thirty (30) calendar days.
- 3) If the owner of the real estate has not completed corrective action on the unauthorized approach within the time specified by the notice, INDOT may do whatever in its discretion is necessary to correct the situation or may cause the same to be done by other persons, parties, or corporation.
- 4) The cost of the corrective action to the unauthorized approach as provided by subdivision (30) in this section will be borne by the owner of the real estate. After INDOT has completed the corrective action, it will bill the owner of the real estate for the cost.

## SECTION 5: Civil prosecution

It will be at the discretion of INDOT to pursue legal action against the person who fails to react to the requirements of 120 IAC 2-2-4 (1) and (2) [section 4(1) through 4(2)] of this rule.

## SECTION 6: Waiver of corrective action

Where unauthorized approaches extending over any highway right-of-way are in place on the effective date of this regulation, it will be the right of INDOT to exercise discretion in implementing the procedure stated in 120 IAC 2-2-4 [section 4 of this rule].

## APPENDIX B: CLAUSES FOR TRANSFER OF REAL PROPERTY

### CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in all deeds, licenses, leases, permits, or similar instruments entered into by the Indiana Department of Transportation (INDOT) pursuant to the provisions of Assurance for the subsequent transfer of real property acquired or improved under the Federal-Aid Highway Program.

The (grantee, licensee, lessee, permittee, etc., as appropriate) for himself, his heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that in the event facilities are constructed, maintained, or otherwise operated on the said property described in this (deed, license, lease, permit, etc.) for a purpose for which a Department of Transportation program or activity is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of INDOT of Transportation-Effectuation of Title VI of the Civil Rights Act of 1964, Title 23 Code of Federal Regulations, Part 200, Title VI Program and Related Statutes – Implementation and Review Procedures, and as said Regulations may be amended.

That in the event of breach of any of the above nondiscrimination covenants, INDOT will have the right to terminate the [license, lease, permit, etc.] and to re-enter and repossess said land and the facilities thereon, and hold the same as if said [licenses, lease, permit, etc.] had never been made or issued.

The following will be included in all deeds, licenses, leases, permits, or similar agreements entered into by INDOT pursuant to the provisions of Assurance for the construction or use of or access to space on, over or under real property acquired, or improved under the Federal-Aid Highway Program.

The (grantee, licensee, lessee, permittee, etc., as appropriate) for himself, his personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds, and leases add "as a covenant running with the land") that (1) no person on the ground of race, color, national origin, sex, sexual orientation, gender identity, age, disability, religion, income status or limited English proficiency will be excluded from participation in, denied the benefits of, or he

otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over or under such land and the furnishing of services thereon, no person on the ground of race, color, national origin, sex, sexual orientation, gender identity, age, disability, religion, income status or limited English proficiency, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations. Department of Transportation, Subtitle A, Office of the Secretary. Part 21, Nondiscrimination in Federally-assisted programs of INDOT of Transportation-Effectuation of Title VI of the Civil Rights Act of 1964), Title 23 Code of Federal Regulations, Part 200, Title VI Program and Related Statutes – Implementation and Review Procedures, and as said Regulations may be amended.

That in the event of breach of any of the above nondiscrimination covenants, INDOT will have the right to terminate the [license, lease, permit, etc.] and to re-enter and repossess said land and the facilities thereon, and hold the same as if said [license, lease, permit, etc.] had never been made or issued.[Include in deeds]<sup>1</sup>That in the event of breach of any of the above nondiscrimination covenants, INDOT will have the right to re-enter said land and facilities thereon, and the above described lands and facilities will thereupon revert to and vest in and become the absolute property of INDOT and its assigns.



## APPENDIX C: REFERENCES

1. Indiana Department of Transportation Design Manual, 2013. ([2013 IDM](#))
2. AASHTO 2011- A Policy on Geometric Design of Highways and Streets. More commonly known as the Green Book. To obtain a copy, contact AASHTO directly at: <https://www.transportation.org/>
3. Transportation Research Board's Highway Capacity Manual, fifth edition 2010. To obtain a copy, contact the Transportation Research Board directly at: <http://www.trb.org/Main/Home.aspx>
4. Indiana Department of Transportation Standard Drawings, Section 610 for public road approaches. Effective on or after 9/1/2017. ([INDOT Standard Drawings](#))
5. Indiana Dept. of Transportation – Traffic Impact Study Guidelines
6. Access Management, Location and Design- Publication # FHWA-HI-92-033
7. Transportation Research Board/National research Council Circular # 456, March 1996- Driveway and Street Intersection Spacing ([Circular 456](#))
8. Department of Justice, 2010 ADA Standards for Accessible Design. ([DOJ ADA](#))
9. United States Access Board, Chapter 4: Accessible Routes. ([USAB Chapter 4](#))
10. Institute of Transportation Engineers Trip Generation Manual. ([ITE Trip Generation](#))
11. Indiana Manual on Uniform Traffic Control Devices. ([Traffic Devices](#))
12. Indiana Department of Transportation, Applicants Guide to Traffic Impact Studies, 2015. ([INDOT Guide to TIS](#))
13. Indiana Department of Transportation; Access Management Guide, September 2009 – Revised 2013. ([INDOT Access Management Guide](#))
14. Indiana Administrative Code, Title 105 Indiana Department of Transportation, Article 7: Permits for Highways. ([IAC Title 105](#))
15. Indiana Manual on Uniform Traffic Control Devices, 2011. [IMUTCD](#)

16. Indiana Department of Transportations, Applicants Guide to Traffic Impact Studies, May 2015. ([INDOT TIS](#))
17. Institute of Transportation engineers Trip Generation Manual, 10<sup>th</sup> Edition. [ITETGM](#)

## APPENDIX D: INDOT DRIVEWAY PERMIT MANUAL VERSION CONTROL

<b>Document</b>	<b>Version Number &amp; Date</b>	<b>Change Description</b>	<b>Author(s)</b>
INDOT Driveway Permit Manual 1996	Version 1.0, 18 Oct 1996	Established Driveway Permit Manual	
INDOT Driveway Permit Manual 2018	Version 1.0, April 2018	Complete update of all sections, drawings, and references.	Randy Archer, Tim Well, Monica Hartke-Tarr, Shellie Haney, Taylor Ruble, Doug Corey, Jason Hanaway, Luis Laracuenta
INDOT Driveway Permit Manual 2018	Version 1.1,		Randy Archer, Brittany Smith, Monica Hartke-Tarr
INDOT Driveway Permit Manual 2018	Version 1.2,		
INDOT Driveway Permit Manual 2018	Version 1.3,		