

CHAPTER 21 MOBILITY, TRAFFIC, AND ACCESS

SECTION 21.10 INTENT

The intent of this chapter is to provide safe and efficient transportation systems for all users.

SECTION 21.20 PEDESTRIAN AND BICYCLE ACCOMMODATION

A. ON-SITE PEDESTRIAN CONNECTIONS

1. **Walkways.** All mixed-use, commercial, industrial, and multi-family development shall provide a network of safe, reasonably direct, and convenient on-site pedestrian walkways with a minimum width of five (5) feet from entryways to:
 - a. On-site parking areas.
 - b. Public sidewalks or pathways within adjacent public right-of-way.
 - c. Adjacent transit stops and shelters, public parks, greenways, schools, community centers, and shopping areas.
2. **Crosswalks.** Crosswalks in parking areas shall be distinguished from concrete and asphalt driving surfaces through the use of durable, low-maintenance striping or surface materials such as pavers, bricks, or scored, stamped, or colored concrete to enhance pedestrian safety and comfort, as well as the attractiveness of the parking area.
3. **Amenities.** For the comfort and convenience of pedestrians and customers, when designing walkways internal to the development, the Township encourages the inclusion of landscaping treatments such as benches, trash receptacles, shade trees and/or other vegetative cover.

B. ALONG ROADWAYS WITHIN RIGHT-OF-WAY

1. **Multi-Use Pathways.** In recognition of the fact that a pedestrian system along arterial streets would enhance pedestrian safety and conserve energy through nonmotorized transportation opportunities, walkways/bikeways may be required as determined by the Planning Commission during the site plan review process.
 - a. If required and possible, the walkway/bikeway shall be in the outside 10 feet of the road right-of-way and constructed in accordance with the adopted standards of the Township (Kent County Road Commission Standards).
 - b. If not possible within the right-of-way, a public access easement shall be provided if on private property.
2. **Considerations.** In determining whether to require a walkway/bikeway, the following criteria shall be considered by the Planning Commission:
 - a. The amount of current and future pedestrian and nonmotorized traffic passing by the site.
 - b. Whether the pedestrian facility would enhance the safety of pedestrians currently crossing the site, as well as the safety of future pedestrians.
 - c. The existing and future traffic volumes on the street abutting the site.

- d. The existence or probability of such a facility being constructed on adjacent properties in order to create or complete a usable walkway/bikeway system.
- e. The location of the proposed use.
- f. The location of pedestrian attractions such as schools, churches, public buildings, and shopping opportunities.

C. BICYCLE ACCOMMODATION

- 1. **Bicycle Connections.** All new non-residential and mixed-use development shall be served by an internal bicycle circulation system that permits safe, convenient, efficient, and orderly movement of bicyclists from the place of origin to bicycle parking facilities or areas near the primary entrance(s) of principal buildings, recreation facilities, and other common-use areas and amenities.
- 2. **Circulation.** The development's internal bicycle circulation system shall also permit safe, convenient, efficient, and orderly movement to and from any adjacent community-wide bicycle circulation system, public park, schools, community centers, and shopping areas.

SECTION 21.30 TRAFFIC IMPACT ANALYSIS

A. APPLICABILITY

- 1. **TIA.** A Traffic Impact Analysis (TIA) may be required by the Planning Commission for any development reviewed as part of a Planned Unit Development, rezoning, or special land use that is anticipated to generate more than 150 peak-hour trips based on the most recent edition of the Trip Generation Manual published by the Institute of Transportation Engineers (ITE).
- 2. **Redevelopment.** In the case of redevelopment, trip generation will be defined as the number of net new trips generated by the proposed use beyond the trips generated by the previous use unless the previous use has been discontinued for more than 12 months.
- 3. **Projects with Cumulative Impacts.** A TIA shall be required for development projects that do not otherwise meet the thresholds of a required TIA if the application is for a project that:
 - a. Shares features such as site access, common ownership, or other infrastructure with nearby undeveloped property for which future development can reasonably be anticipated and
 - b. The cumulative impact of the overall development can be expected to exceed the threshold for preparation of a TIA.
- 4. **Other Circumstances.** The Planning Commission may waive the requirement to complete a TIA or may require a TIA to be submitted for developments not meeting the above requirements based upon localized safety, operational, or street capacity issues, including levels of service (LOS) of existing streets.

B. EXEMPTIONS

Previously approved developments for which a TIA was submitted in conjunction with a preliminary plat for subdivision, site condominium, site plan, or Planned Unit Development shall be exempt from the requirements of this section, provided the TIA is less than two (2) years old.

C. SUBMITTAL

1. **Requirements.** The TIA shall be submitted along with a development application for review by the Planning Commission. The TIA shall be prepared by a professional transportation engineer licensed in the State of Michigan and shall, at a minimum:
 - a. Identify existing conditions, including abutting street cross-section, current (background) traffic volumes, peak hour directional volumes, signalization, and intersection level of service (LOS);
 - b. Project the traffic to be generated by the proposed development and proposed developments in the immediate vicinity based on the most recent edition of the ITE Trip Generation Manual. The Township, Kent County Road Commission, or Michigan Department of Transportation may also specify annual growth factors to be used in the TIA;
 - c. Evaluate site access, directional movements, and internal circulation;
 - d. Evaluate, based on LOS during peak hours, the ability of the surrounding road network to support the proposed development and the cumulative traffic of current and other projected uses;
 - e. Consider planned roadways or improvements; and
 - f. Identify specific improvements to the surrounding road network that are necessary to support the traffic to be generated at an acceptable level of service.
2. **Contrasting Scenarios.** The traffic study should contrast the daily and peak hour trip generation rates for representative use in the current and requested zoning district or the current and requested use. The determination of representative uses shall be made by the Township.

D. DECISION-MAKING

The results of a TIA may be considered during the review of Planned Unit Developments, zoning map amendments, and special land uses to determine if traffic-related standards of approval are met.

SECTION 21.40 ACCESS MANAGEMENT

A. INTENT

This section regulates the number and spacing of access points on county primary and secondary streets. The objectives of this section are to:

1. Ensure safe conditions for all users, including pedestrians, cyclists, wheelchair users, and drivers.
2. Encourage the efficient flow of traffic by minimizing the disruption and conflicts between through traffic and turning movements.
3. Improve safety and reduce the potential for crashes.
4. Avoid the proliferation of unnecessary curb cuts and driveways, and eliminate or reconfigure existing access points that do not conform to this section when opportunities arise.
5. Require coordinated access among adjacent lands, where possible, using frontage roads, service drives, and shared access points, where appropriate.
6. Establish uniform standards to ensure fair and equal applications that are the minimum necessary to meet the objectives.
7. Provide landowners with reasonable access, though the access may be restricted to a shared driveway or service drive or via a side or rear street, even though the number and location of access drives may not

be the arrangement most desired by the landowner or applicant.

8. Promote a more coordinated development review process for the Township with the Kent County Road Commission.

B. JURISDICTION AND CONFLICT

The standards within this section may be more restrictive than the standards of the Michigan Department of Transportation or the Kent County Road Commission, which have jurisdiction over streets and review and approve access design. The Township has developed the standards of the section to complement the standards of the Michigan Department of Transportation and the Kent County Road Commission for streets. Where any conflicts arise, the more stringent standard shall apply. This section sets forth procedures to help ensure a consistent review and approval process.

C. APPLICABILITY

1. **Applications.** All applications for planned unit developments, platted subdivisions, site condominiums, conventional condominiums, and site plans that propose access to Kent County primary and secondary roads are subject to the requirements of this section.
2. **Site Plan Amendments.**
 - a. The Planning Commission, in conjunction with the Kent County Road Commission, shall determine the extent of upgrades to bring the site into greater compliance with the access standards. In making its decision, the Planning Commission shall consider the existing and projected traffic conditions, any sight distance limitations, site topography or natural features, impacts on internal site circulation, location and design of meridian crossovers, and recommendations from the Kent County Road Commission.
 - b. Required improvements may include removal, rearrangement, or redesign of site access points or other improvements required by the Township, Fire Department, and the Kent County Road Commission.
3. **Coordinated Review.** The applicant shall submit evidence that the Kent County Road Commission has been sent a copy of the proposed plan for review and approval.

D. GENERAL REQUIREMENTS

1. **Measurements.** Unless otherwise noted, spacing and offsets shall be measured from centerline to centerline.
2. **Number of Driveways.**
 - a. In general, the number of access points from public primary and secondary roads to development sites shall be the fewest needed to allow motorists reasonable access to the site and shall provide the opportunity for shared access with adjoining lots.
 - b. Access points shall be limited to one (1), unless it can be shown that the property will generate sufficient traffic volumes to require two (2) points of access or that additional access points are necessary for safe operations internal to the property.
 - c. Should an additional access point be needed, joint access shall be sought with adjacent property owners.
3. **Driveway Location in General.** Access drives shall be located to interfere as little as possible with the use of adjacent properties and the flow of traffic on adjacent streets, to avoid undue interference with pedestrian access, and to provide the required site distance and the most favorable driveway grade.

- a. Access drives on corner lots shall be located as far from the street intersection as practicable.
 - b. Details must be provided to confirm adequate sight distance per Kent County Road Commission standards.
 - c. Access shall be located to ensure the adjacent site(s) can also meet the access location standards.
4. **Access Design.** Where practical, given right-of-way constraints, driveways shall be designed with radii, tapers, and other geometrics as determined by the Kent County Road Commission to minimize the impacts of inbound right turns on traffic flow.

E. SPACING BETWEEN COMMERCIAL DRIVEWAYS AND STREET INTERSECTIONS

1. **Minimum Spacing.** Minimum spacing requirements between a proposed commercial driveway and an intersection, either adjacent or on the opposite side of the street, may be set on a case-by-case basis but shall not be less than the distances listed in Table 21.40 E, unless otherwise approved by the Kent County Road Commission and the Township.
2. **Measurement.** For curbed sections, spacing and offsets shall be measured from centerline to centerline. For uncurbed sections, the following measurements are from the near edge of the proposed driveway, measured at the throat perpendicular to the street, to the near lane edge of the intersecting street or pavement edge.

TABLE 21.40 E: MINIMUM COMMERCIAL DRIVEWAY SPACING FROM COUNTY ROAD INTERSECTIONS

Road Type	Minimum Driveway Spacing (ft.)
County Primary	350
County Local	250

F. SPACING BETWEEN COMMERCIAL DRIVEWAYS ON THE SAME SIDE OF THE STREET

Minimum spacing between two (2) commercial driveways on the same side of the street shall be determined based upon posted speed limits along the lot frontage noted in Table 21.40 F. The minimum spacing indicated below is measured from centerline to centerline.

TABLE 21.40 F: MINIMUM SPACING BETWEEN COMMERCIAL DRIVEWAYS ON SAME SIDE OF STREET

Posted Speed Limit (MPH)	Minimum Driveway Spacing (ft.)
35 or less	130-245
Over 35	300-455

G. ALIGNMENT AND SPACING BETWEEN COMMERCIAL DRIVEWAYS ON OPPOSITE SIDES OF THE STREET

1. **Alignment and Separation.** To reduce left-turn conflicts, new commercial driveways shall be aligned with those across the street where possible. If alignment is not possible, driveways shall be offset by the minimum distance as noted in Table 21.40 G from those on the opposite side of the street. The minimum spacing indicated below is measured from centerline to centerline. These standards may be reduced by the Township if approved by the Kent County Road Commission. Longer offsets may be required depending on the expected inbound left-turn volumes of the driveways.

TABLE 21.40 G: MINIMUM SPACING BETWEEN COMMERCIAL DRIVEWAYS ON OPPOSITE SIDE OF STREET	
Posted Speed Limit (MPH)	Minimum Driveway Spacing (ft.)
35 or less	255-425
Over 35	525-750

2. **Exceptions.** In the case of expansion, alteration, or redesign of an existing development where pre-existing conditions prohibit adherence to the minimum commercial driveway spacing standards, the Township may modify the driveway spacing requirements.

H. SHARED DRIVEWAYS AND PRIVATE STREETS

1. **Reduction of Access Points.** Where noted above, or where the Township determines that reducing the number of access points may have a beneficial impact on traffic operations and safety while preserving the property owner's right to reasonable access, a shared commercial driveway, frontage road, or rear service drive connecting two (2) or more properties or uses may be required. In particular, service drives may be required near existing traffic signals or near locations having potential for future signalization; along major arterial streets with high traffic volumes; and along segments with a relatively high number of accidents or limited sight distance.
2. **Review.** Shared commercial driveways and private streets are subject to review and approval in accordance with Chapter 22.

I. CROSS-ACCESS CONNECTIVITY

1. **Applicability.** Nonresidential and mixed-use development sites in the Commercial and Mixed-Use and Industrial zoning districts shall be designed to incorporate cross-access connectivity between parking areas of abutting Commercial and Mixed-Use and Industrial zoned lots or to the boundary of adjoining similarly zoned vacant land. The cross-access shall consist of a driveway or drive aisle meeting the width requirements of Section 20.40.
2. **Easements.** Easements allowing cross-access to and from lands served by a vehicular cross-access, along with agreements defining the maintenance responsibilities of landowners pertaining to the vehicular cross-access, shall be recorded by the landowner with the Kent County Register of Deeds. Easements and maintenance agreements shall comply with Section 22.70.
3. **Waiver.** If the approval authority determines that cross-access connectivity is not appropriate or is impractical for the subject use(s),
 - a. The site shall be designed to preserve the possibility of future connectivity and cross-access movements of vehicles and pedestrians between adjacent lots; or
 - b. Cross-access shall be waived if determined that topographic conditions, natural features, or vehicular safety factors support the waiver.

J. MODIFICATIONS

1. **Authority and Review.** The Township approval authority may modify the standards of this section, but only upon receiving input and approval from the Kent County Road Commission.
2. **Traffic Impact Study.** If the applicant requests a modification, the Township may require the submittal of a transportation impact analysis in accordance with Section 21.30 to verify the need for additional driveways or to justify a modification from the standards of this section.

3. **Considerations.** Modifications shall only be approved in the following situations.
 - a. The modification will allow an existing driveway to remain that does not meet the standards of this Section, but that has or is expected to have very low traffic volumes (less than 50 inbound and outbound trips per day) and is not expected to significantly affect traffic operations.
 - b. The use is expected to generate a relatively high number of trips, and an additional driveway will improve overall traffic operations.
 - c. Unique difficulties exist on the site that make compliance unreasonable (e.g., sight distance limitations, existing development, topography, unique site configuration or shape), or existing off-site driveways make it impractical to fully comply with the standards.
 - d. Restricted turning movements will be further restricted by driveway design so that the driveway is not expected to significantly affect traffic flow.
4. **Lack of Sufficient Frontage to Maintain Adjacent Spacing.** In the event that a particular lot lacks sufficient frontage to maintain adequate spacing, the following options should be considered:
 - a. Choose the next lowest spacing from the applicable table.
 - b. Encourage a shared driveway with the adjacent owners. In such a case, the driveway midpoint may be located at the property line between two (2) lots. However, all parties must agree to the joint driveway in writing.
 - c. Provide an access point to the side street whenever possible.
 - d. In areas where frontage roads or service drives exist or can be constructed, individual properties shall be provided access to these drives rather than directly to the main highway.
 - e. After all the above options are exhausted, an access point may be allowed within the property limits as determined by the Township and Kent County Road Commission.

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