

ORDINANCE NO. 2000-04

AN ORDINANCE OF THE TOWNSHIP OF CONEWAGO, DAUPHIN COUNTY, PENNSYLVANIA, AMENDING THE CONEWAGO TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE BY ADOPTING PROVISIONS REQUIRING A TRAFFIC IMPACT STUDY FOR CERTAIN RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT AND ALSO BY ADDING PROVISIONS REQUIRING DEVELOPERS TO INSTALL CURBS, GUTTERS AND SIDEWALKS, AND TO BRING ADJACENT ROADS AND STREETS UP TO CURRENT STANDARDS.

BE IT ORDAINED AND ENACTED by the Board of Supervisors of the Township of Conewago, Dauphin County, Pennsylvania, that the Subdivision and Land Development Ordinance as set forth in Chapter 22 of the Township of Conewago Code of Ordinances, adopted on January 6, 1997, by Ordinance No. 1997-1, is hereby amended as set forth hereinafter:

SECTION 1. Chapter 22, Part 4, Plat Specifications and Processing Procedures, §405. Preliminary Plat: Specifications, is hereby amended by revising §405.1.E, to read as follows:

Section 405. Preliminary Plat: Specifications

E. All residential developments or subdivisions containing fifteen (15) or more dwelling units or residential lots and all non-residential developments (with the exception of agricultural development) that generate twenty (20) or more new peak hour trips or one hundred fifty (150) total trips per day shall provide studies and reports in accordance with the requirements of this Section. All applicants with developments that do not meet the above stated criteria shall submit the information required in Section 405.1.E(2)(d).

- (1) Applicant is responsible for assessing the traffic impacts associated with a proposed development that meets any condition set forth above. The Township will review the applicant's assessment and supply available data upon request to aid the applicant in preparing the study. The applicant shall be responsible for all data collection efforts required in preparing a traffic impact study including peak period turning movement counts. In addition, the applicant is responsible for ensuring that any submitted development plans meet the minimum state and local standards for geometric design. The study shall be conducted only by a professional engineer that has verifiable experience in traffic engineering. Upon submission of a draft study, the Township may review the data sources, methods and findings and provide comments in written form. The applicant will then have the opportunity to incorporate necessary revisions prior to submitting a final study.

(2) Traffic Impact Study Contents. A traffic impact study prepared for a specific site development proposal shall follow the basic format shown below. Additions or modifications should be made for a specific site, when appropriate. This basic format allows for a comprehensive understanding of the existing site, future conditions without the proposed use and the impacts associated with the proposed development plan. Following is a brief narrative for each section of a traffic impact study.

(a) This section identifies the land use and transportation setting for the site and its surrounding area.

(i) Site and study area boundaries. A brief description of the size of the land parcel, general terrain features, legal right-of-way lines of the highway, and the location within the jurisdiction and the region should be included in this section. In addition, the roadways that afford access to the site and are included in the study area should be identified. The exact limits of the study area should be based on engineering judgement and an understanding of existing traffic conditions at the site. In all instances, however, the study limits must be mutually agreed upon by the developer, its engineer and the Township.

(ii) Site description. This section should contain a brief narrative that describes the proposed development in terms of its function, size and near and long term growth potential. This description should be supplemented by a sketch which clearly shows the proposed development within the site boundaries, its internal traffic circulation pattern and the location and orientation of its proposed access points.

(iii) Existing and proposed site uses. The existing and proposed uses of the site should be identified in terms of the various zoning categories in the jurisdiction. In addition, identify the specific use on which the study is made since a number of uses may be permitted under the existing ordinances.

(iv) Existing and proposed nearby uses. Include a complete description of the existing land uses in the vicinity of the site as well as their current zoning. The applicant should also state the proposed uses for adjacent land, if known. This latter item is especially important where large tracts of underdeveloped land are in the vicinity of the site and within the prescribed study area.

(v) Existing and proposed roadways and intersections. Within the study area, describe existing roadways and intersections (geometrics and traffic signal control) as well as improvements contemplated by government agencies.

(b) Analysis of Existing Conditions. This section describes the results of the volume/capacity analysis to be completed for the roadways and intersections in the study area under existing conditions as well as any data collection efforts that are required.

(i) Daily and peak hour(s) traffic volumes. Provide schematic diagrams depicting daily and peak hour(s) traffic volumes for roadways within the study area. Turning movement and mainline volumes are to be presented for the three (3) peak hour conditions (AM, PM and site generated) while only mainline volumes are required to reflect daily traffic volumes. Include the source and / or method of computation for all traffic volumes.

(ii) Volume/capacity analyses at critical points. Utilizing techniques described in the most current version of the Highway Capacity Manual, highway capacity software, or derivative nomographs, include an assessment of the relative balance between roadway volumes and capacity. Perform the analysis for existing conditions (roadway geometry and traffic signal control) for the appropriate peak hours.

(iii) Level of service at critical points. Based on the results obtained in the previous section, levels of service (A through F) are to be computed and presented. This section should also include a description of typical operating conditions at each level of service.

(c) Analysis of Future Conditions without Development. This section describes the anticipated traffic volumes in the future and the ability of the roadway network to accommodate this traffic without the proposed zoning or subdivision request. The future year(s) for which projections are made will be specified by the Township and will be dependent on the timing of the proposed development.

(i) Daily and peak hour(s) traffic volume. Clearly indicate the method and assumptions used to forecast future traffic volumes in order that the Township can duplicate these calculations. The schematic diagrams depicting future traffic volumes will be similar to those described in Section 405.1.E(2)(b)(i) in terms of locations and times (daily and peak hours).

(ii) Volume/capacity analyses at critical locations. Describe the ability of the existing roadway system to accommodate future traffic (without site development). If roadway improvements or modifications are committed for implementation, present the volume / capacity analysis for these conditions.

(iii) Level of service at critical points. Based on the results obtained in the previous section, determine levels of service (A through F).

- (d) Trip Generation. Identify the amount of traffic generated by the site for daily and the three (3) peak conditions. The trip generation rates used in this phase of the analysis shall be justified and documented to the satisfaction of the Township.
- (e) Trip Distribution. Identify the direction of travel for site generated traffic for the appropriate time periods. As with all technical analysis steps, the basic method and assumptions used in this work must be clearly stated in order that the Township can replicate these results.
- (f) Traffic Assignment. Describe the utilization of study area roadways by site generated traffic. The proposed traffic volumes should then be combined with anticipated traffic volumes from Section 405.1 .E(2)(c) to describe mainline and turning movement volumes for future conditions with the site developed as the applicant proposes.
- (g) Analysis of Future Conditions with Development. This section describes the adequacy of the roadway system to accommodate future traffic with development of the site.
 - (i) Daily and peak hour(s) traffic volumes. Provide mainline and turning movement volumes for the highway network in the study area as well as driveways and internal circulation roadways for the appropriate time periods.
 - (ii) Volume/capacity analyses at critical points. Perform a volume / capacity analysis for the appropriate peak hours for future conditions with the site developed as proposed, similar to Sections 405.1.E(2)(b)(ii) and 405.1.E(2)(c)(ii).
 - (iii) Level of service at critical points. As a result of the volume/capacity analysis, compute and describe the level of service on the study area roadway system.
- (h) All highway capacity evaluations shall consider the overall intersection level of service and delay, and evaluate each approach and movement to identify any substantial values which need to be improved.
- (i) Recommended Improvements. In the event that the analysis indicates unsatisfactory levels of service will occur on study area roadways, a description of proposed improvements to remedy deficiencies should be included in this section. These proposals would not include committed projects by the state and local jurisdictions that were described in Section 405.1 .E(2)(a) and reflected in the analysis contained in Sections 405.1 .E(2)(b) and (c). The preferred level of service is C; however, a lower level of service may be permitted if the existing level of service is less than C, provided that the permitted level shall not be lower than the existing level of service. In the event that the intersection/driveway accesses which are the subject of the study do not meet warrants for a traffic control device in accordance with the standards of the Pennsylvania Department of Transportation or cannot be improved to achieve a level of service of C due to

existing physical limitations such as lack of right-of-way, the permitted level of service may be lower than C if the existing level is less than C.

(i) Proposed recommended improvements. Describe the location, nature and extent of proposed improvements to assure sufficient roadway capacity.

Accompanying this list of improvements are preliminary cost estimates, sources of funding, timing and likelihood of implementation.

(ii) Volume/capacity analysis at critical points. Another iteration of the volume/capacity analysis will be described which demonstrates the anticipated results of making these improvements.

(iii) Level of service at critical points. As a result of the revised volume/capacity analysis presented in the previous section, present levels of service for the highway system with improvements.

(j) The last section of the report should be a clear concise description of the study findings. This concluding section should serve as an executive summary.

SECTION 2. Chapter 22, Part 6, Improvements and Construction Requirements, §606. Curbs. is hereby amended to read as follows:

§606. Curbs. The installation of curbs and/or gutters shall be required in all subdivisions or land developments. The Board of Supervisors, upon recommendation of the Planning Commission and the Township Engineer, may waive the requirements of curbs and/or gutters through the alteration of requirements procedure set forth in Part 9, "Modifications."

- A. Curbs, gutters, or combination curbs and gutters shall be constructed in accordance with the specifications as set forth in the current edition of the Pennsylvania Department of Transportation Publication 408, as amended, and as detailed on the Roadway Construction Standard Drawings (RC-64).
- B. Curbs and gutters shall be set and finished to the line and grade given on the approved drawings.
- C. When curbing is to be removed to construct a driveway, the removal shall be done on the complete curb section. The length of curbing to be removed shall be carried to the nearest expansion joint or saw cut if the joint is located more than five (5) feet from the end of the curb removal. Curb replacement shall be formed and shaped to the required driveway width. The driveway shall be depressed to a height of one (1) inch above the finished paving grade.

- D. No partial breaking out of the curb shall be permitted without approval by the Township Engineer or his designated agent.
- E. Curbs shall be inspected by the Township Engineer or his designated agent after the forms have been placed, just prior to the pouring of concrete and after completion of all work.

SECTION 3. Chapter 22, Part 6, Improvements and Construction Requirements, §607. Sidewalks is hereby amended to read as follows:

§607 Sidewalks. The installation of sidewalks shall be required in all subdivisions or land developments. The Board of Supervisors, upon recommendation of the Planning Commission and the Township Engineer, may waive the requirement of sidewalks through the alteration of requirements procedures set forth in Part 9 of this Chapter.

- A. In order to provide for the drainage of surface water, sidewalks shall slope from the right-of-way line toward the curb. Such slope shall be three-eighths (3/8) inch per foot.
- B. Sidewalks shall be constructed in accordance with the specifications as set forth in the Pennsylvania Department of Transportation Publication 408, as amended.
- C. Four (4) inches of AASHTO #57 coarse aggregate shall be placed under all sidewalks.
- D. Sidewalks shall be within the right-of-way of the street and shall extend in width from the right-of-way line toward the curb line.
- E. Sidewalks shall be at least four (4) feet wide, or unless otherwise specified.
- F. Where a sidewalk abuts a curb, wall, building or any other structure, a pre-molded expansion joint one-quarter (1/4) inch in thickness, shall be placed between the sidewalk and said structure for the full length of said structure.
- G. Sidewalks shall be boxed out around light standards, fire hydrants, etc., with a pre-molded expansion joint, one quarter (1/4) inch in thickness.
- H. Sidewalks shall be inspected by the Township Engineer or his designated agent after the forms have been placed, just prior to the pouring of concrete and after completion of all work.

SECTION 4. Chapter 22, Part 6, Improvements and Construction Requirements, is hereby amended to add a new Section §6 13, to read as follows:

§613. Existing Road Improvements. Where a subdivision and/or land development is for land adjacent to any existing township or state road which is substandard in regards to cartway and shoulder width as set forth in Section 603 hereinabove, the Developer shall be required to construct improvements along the frontage of the proposed lot(s) or land development. Improvements will only be required on the side of the road adjacent to the development, not the full width. Required improvements shall be constructed pursuant to Section 502.3.A. The Board of Supervisors, upon recommendation of the Planning Commission and the Township Engineer, may waive one or all of these requirements through the Alteration of Requirement procedures set forth in Part 9, Modifications.

- A. Streets and shoulders in and bordering a subdivision or land development shall be coordinated with any proposed adjacent development and/or Township plans for improvements, and shall be of such width and grades to accommodate prospective traffic and facilitate fire protection.
- B. All improvements installed by the applicant shall be constructed in accordance with design specifications of the Township or Pennsylvania Department of Transportation as applicable.
- C. Existing stormwater drainage swales shall be relocated or piped in accordance with design specifications of the Township.
- D. The existing edge of pavement shall be saw cut in a straight line. The joint between the existing pavement and new pavement shall be sealed with two coats of AC-20.

ENACTED AND ORDAINED into law this 9th day of August, 2000 to become effective five (5) days from the date hereof.

BOARD OF SUPERVISORS
TOWNSHIP OF CONEWAGO
DAUPHIN COUNTY PENNSYLVANIA

ATTEST:
Donna K. Spittle, Secretary
(SEAL)

By: John J. Graybill, Chairman

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