

PART 6

DESIGN STANDARDS

SECTION 601 GENERAL

The standards and requirements contained in this Part shall apply as minimum design standards for subdivisions and/or land developments in Clay Township.

In addition, subdivisions and/or and developments shall be designed to comply with the requirements of the Zoning Ordinance, the Storm Water Management Ordinance, Authority regulations, and PaDEP and Penn DOT regulations, as applicable.

All proposed subdivisions and/or land developments shall be designed, laid out, arranged, constructed, maintained and coordinated with all presently existing facilities and improvements which serve the tract proposed to be developed, including but not limited to the (a) transportation network, (b) sewer collection, conveyance, and treatment facilities, (c) water supply and distribution facilities, and (d) storm water management facilities, as necessary to accommodate prospective traffic, provide adequate sewer and water service, promote proper storm water management, facilitate fire protection, prevent flooding, and conform to the Comprehensive Plan, including any adopted Urban Growth Boundary (UGB) or Village Growth Boundary (VGB), the Official Map, and any regulations or plans adopted in furtherance thereof. All proposed subdivisions and/or land developments shall also be designed, laid out, arranged, constructed, maintained and coordinated to insure that abutting properties will continue to have safe and convenient access in accordance with the standards of this Ordinance or, if such properties do not presently have such access, to have access at least equal to the level existing prior to the proposed subdivision and/or land development. The applicant shall submit studies and reports with the Preliminary Plan and the Final Plan, which shall clearly identify any assumed, proposed, and required improvements to existing facilities. If an applicant submits a study, report or plan which contains improvements assumed to be installed by others and compliance with the design standards in this Ordinance is based upon the completion of such assumed improvements, the design standards of this Ordinance shall not be considered met unless the applicant presents evidence that a governmental entity has budgeted funds and/or has entered into contracts for the assumed improvements or unless a plan for another development which proposes the installation of such improvements has been approved and recorded.

- A. Whenever the Zoning Ordinance provides that the use proposed by the applicant for subdivision and/or land development approval shall constitute a use by special exception or a conditional use, or when there is a need for a zoning variance, the applicant shall obtain such special exception, conditional use or variance approval from the Zoning Hearing Board or the Board of Supervisors, as applicable, prior to the submission of the Preliminary Plan. The Preliminary Plan shall be designed and developed in accordance with any conditions which

have been imposed upon the grant of such special exception or conditional use by the Zoning Hearing Board or the Board of Supervisors.

- B. Whenever the applicant proposes to develop a subdivision and/or land development in a manner that would require a variance or variances from any requirements of the Zoning Ordinance, the applicant shall obtain such variance or variances from the Zoning Hearing Board prior to the submission of the Preliminary Plan. The Preliminary Plan shall be designed and developed in accordance with any conditions that have been imposed upon the grant of such variance or variances by the Zoning Hearing Board.
- C. Whenever all or a portion of the land contained within an application for subdivision or land development approval constitutes all or a portion of land included in a prior subdivision or land development plan approved by the Township or the County Planning Commission and recorded in the Office of the Recorder of Deeds, the plan shall comply with all conditions, restrictions, and notes imposed on the prior approval and/or included upon the recorded subdivision or land development plan. The applicant shall identify all prior recorded subdivision and/or land development plans of which all or a portion of the land contained in the plan was a part and all conditions, easements and rights-of-way, restrictions, and notes which affect the current application. Failure to identify all applicable conditions, easements and rights-of-way, restrictions, and notes of record on prior plans constitutes a violation of this Ordinance. The applicant shall submit with the application for Preliminary Plan approval (or Final Plan approval if a Preliminary Plan is not required) a statement identifying the prior plans reviewed; the conditions, easements and rights-of-way, restrictions, and notes which would impact development in accordance with the plan for which approval has been requested; and an explanation of the manner in which the proposed plan has been designed to comply with such conditions, restrictions, and notes. This information shall be signed by the applicant or the applicant's engineer, landscape architect or other consultant.

SECTION 602 STREETS, PRIVATE STREETS, ALLEYS, ACCESS DRIVES AND DRIVEWAYS

A. General Standards.

- 1. The proposed street pattern shall be properly related to existing streets, to Official Maps, and to such Township and State road and highway plans as have been duly adopted.
- 2. All design elements of all streets, including horizontal and vertical alignment, sight distance, and super elevation, are subject to review and approval by the Township. When reviewing the design of streets, in addition to the standards in this Ordinance, the Rural Design Criteria in the Pennsylvania Department of Transportation Design Manual Part 2,

Highway Design, latest edition, and AASHTO, "A Policy on Geometric Design of Highways and Streets" (Green Book), latest edition, as amended, shall be consulted to assure that the road design is in accordance with acceptable engineering practice.

3. For certain aspects of vertical and horizontal alignment discussed below, standards are determined by design speed of the road involved. For all proposed streets, the subdivider shall indicate the proposed design speed, which speed is subject to approval by the Township. The design speed shall be a minimum of 35 MPH. Signs indicating the speed limit for streets, which limit shall not exceed the design speed, shall be posted by the developer on each street.

B. Street Design.

1. The design standards for arterial streets shall follow Penn DOT specifications.
2. Collector streets shall have a minimum design speed of 35 mph.
3. Local streets, including cul-de-sac streets, shall have a minimum design speed of 30 mph.
4. The design speed of all streets shall be subject to Township approval.
5. The applicant shall indicate the design speed for all proposed streets.
6. The speed limit for all streets shall not exceed the design speed. The applicant shall post the speed limit for all streets upon completion of construction.

C. Private Streets. Private Streets are prohibited unless they meet the design standards of these regulations. Applications which propose a private street shall be accompanied by an Agreement, which shall be submitted with the Preliminary Plan Application and ultimately recorded with the Lancaster County Recorder of Deeds, as part of the Final Plan this Agreement shall establish the conditions under which the street(s) will be constructed and maintained, as well as conditions controlling an offer of dedication, and shall stipulate:

1. That the street shall be constructed and maintained to conform to the specifications of this Ordinance, unless waived by the Board of Supervisors.
2. That the owners of the abutting lots will include, with any future offer for dedication, sufficient monies, as established by the Township, to restore

the street to conformance with the prevailing standards, or will already have improved the streets to the prevailing standards.

3. That an offer for dedication of the street shall be made only for the street as a whole.
 4. The method of accessing maintenance and repair costs.
- D. Major Collector Design. The design standards for major collectors shall be as specified by the Pennsylvania Department of Transportation and based upon the projected average daily traffic and speed limit. Projected average daily traffic shall be established by traffic surveys conducted by applicant (according to Penn DOT specifications), at applicant's sole expense.
- E. Arrangement. Streets shall be designed with consideration to both existing and planned streets. All streets shall be arranged to conform as closely as possible to the original topography. Streets which serve as connector routes to population centers shall be connected with streets of similar function, to form continuations thereof. Local streets shall be laid out to discourage use by through traffic. Streets shall be laid out to provide convenient and safe access to the property. The rigid rectangular street pattern need not be adhered to; the use of curvilinear streets and cul-de-sacs may be provided when their use will result in a more desirable layout. Where a development abuts an existing or proposed collector street, the Township Supervisors may require the use of marginal access streets, reverse frontage lots, or such other treatment that will provide protection for abutting properties, reduce the number of intersections with the collector street, and separate the local and through traffic. Single entrance roads to high intensity land uses shall be designed to handle the projected use.

Where a subdivision or land development fronts on and will provide for vehicular access to and from an existing Township road which does not meet the minimum width requirements for Pavement, Shoulders, and Clearance Beyond Shoulder established in Table 3 of the latest edition of Guide Lines For Design Of Local Roads and Streets issued by the Pennsylvania Department of Transportation, the Township may require the Subdivider to improve at his expense the Township road to meet those width standards for Pavement, Shoulders, and Clearance Beyond Shoulder pavement shall be constructed in accordance with Pavement Design Guidelines for Rural Areas in Guidelines for Design of Local Roads and Streets. In addition, provision shall be made for adequate drainage along the sides of the roads. Such drainage provisions shall be approved by the Township.

- F. Street Provisions for Future Development. Areas shall be reserved for future street usage in conjunction with the development of adjacent tracts. Areas reserved for future street usage will not be required to be improved; however, these areas shall include sufficient area to establish street and lot grading and

the extent of area necessary to construct the street. Areas reserved for future streets will be at least equal to the minimum right-of-way for the type of street proposed. The Township may require the extension of sanitary sewer and public water supply facilities within the area of the future street. The applicant shall submit an agreement in a form acceptable to the Township which shall provide for the construction and removal of the temporary turnaround.

1. Wherever there exists a dedicated or platted right-of-way reserved for future street usage along or abutting the boundary of a tract being developed, the adjacent street shall be extended into the proposed project provided that this extension is not adverse to the significant manmade or natural features of the site.
 2. When reservations for future streets will adjoin lots to be developed prior to the construction of the streets, the subdivider shall determine the proposed grades of the future streets and the extent of the area necessary for the construction of those streets if the area necessary for the construction of the streets extends beyond the proposed street right-of-way lines, all excavation and grading necessary for the roads beyond the right-of-way lines shall be done as required improvements in conjunction with the subdivision which contained the adjoining lots or else construction easements shall be provided on the adjoining lots, sufficient to permit construction of the future street.
 3. Where reservations for future streets intersection existing streets, radii shall be provided for the reservations such that the requirements of this Ordinance could be met for a street to be constructed in the future.
 4. The developer connecting a proposed street to an existing temporary cul-de-sac shall perform all restoration work necessary to restore the adjacent lots in the area of the existing turnaround.
- G. Half Streets. Half or partial streets (less than the required right-of-way or cartway width) will not be permitted. All plans shall be designed to provide for the entire required right-of-way and cartway.
- H. Street Names. Continuations of existing streets shall be known by the same name. Names of new streets shall not duplicate or closely resemble names of existing streets within the Township or within the same postal, area. All new street names are subject to the local postmaster and local emergency service providers and Lancaster County Wide Communications granting approval with all Final Plan applications. All street names shall conform, where applicable, to the Township plan for street names. The developer shall install street name signs at all new street intersections. The design and placement of such signs shall be subject to Township approval and shall be in accordance with the current edition of Penn DOT Publications 236M (Handbook of Approved Signs) and 408M

(Specifications), as now existing or as hereinafter may be amended, supplemented or replaced.

1. Street and Road Signs. Name signs shall be installed at all new street and road intersections. The design and placement of such signs shall be subject to approval by the Township Supervisors. All signing shall identify both intersecting streets and roads. Regulatory signs shall be installed detail locations identified by a traffic circulation study prepared by the developer. Standard traffic signs shall be approved by the Township and shall, be supplied and installed in accordance with the current edition of Penn DOT Publications 236M (Handbook of Approved Signs) and 408M (Specifications), as now existing or as hereinafter may be amended, supplemented or replaced. Prior to acceptance of streets contouring signage, the developer shall provide an acceptable draft ordinance and any associated traffic studies justifying the sign installation and as easement agreement for maintenance of signs where required signage is located outside of the street right of way.
- I. Vertical alignments. Vertical street alignments shall be measured along the centerline. The minimum grade of all streets shall be seventy-five hundredths (0.75) percent and the maximum grade shall be ten (10) percent.
 1. Vertical curves shall be used in changes in grade exceeding one (1) percent. The minimum lengths (in feet) of vertical curves shall be in accordance with the requirements of the AASHTO Green Book, as now existing or as hereinafter may be amended, supplemented or replaced.
 2. Where the approaching grade exceeds seven (7) percent on any or all streets at a four-way street intersection, or the terminating street at a three-way intersection, a leveling area shall be provided on the street(s) which have a grade in excess of seven (7) percent which shall have a maximum grade of four (4) percent for a minimum length of seventy-five (75) feet measured from the intersection of the centerline.
 3. The grade within the diameter of a turnaround at the terminus of a permanent cul-de-sac shall not exceed five (5) percent nor be less than one (1%) percent.
 4. All new streets shall be graded to the right-of-way line. The maximum slopes of banks located outside of the street right-of-way, measured perpendicular to the right-of-way of the street, shall not exceed three to one (3:1) for fills and two to one (2:1) for cuts.
 5. Streets shall be designed to preclude or minimize the need for guardrail. The Township may, however, require guard rail to be placed for protection on embankments when a barrier is indicated as warranted in Design

Manual Part 2 Highway Design by the Pennsylvania Department of Transportation, latest edition, as amended.

The design and selection of guide rail shall be in accordance with the standards In Design Manual Part 2 Highway Design, latest edition, as amended.

- J. Horizontal Alignments. Horizontal street alignments shall be measured along the centerline, Horizontal curves shall, be used at all angle changes in excess of two (2) degrees. Single, long radius curves shall be used rather than a series of curves, with varying radii and/or a series of short curves separated by short, straight segments. The minimum horizontal curve radius for streets shall be the greater of the design requirements of Design Manual Part II Highway Division Design and/or the AASHTO Green Book or the following:

Table 1

Design Speed (in miles per hour)	Minimum Center Line Radius (In feet)
35	310
40	430
45	550
50	700
55	850

1. Perimeter Streets. Plans with street locations along the perimeter of a property shall be required to show building setback lines and clear sight triangles within the adjacent properties; permission for any encroachment shall be obtained from the adjacent Landowner in the form of a signed agreement.
 2. Cartway Alignment. The centerline of the street cartway shall correspond with the centerline of the street right-of-way.
- K. Street Right-Of-Way and Cartway Widths. The minimum street right-of-way and cartway widths for existing streets adjacent to new development and new streets shall be as follows:

Table 2

Classification	Right-Of-Way	Cartway
Principal and Minor Arterial	Design standards shall be specified by the Pennsylvania Department of Transportation and based upon the projected daily traffic and speed limit.	
Major Collector	60 Feet	38 Feet
Minor Collector	60 Feet	38 Feet
Local Street	60 Feet	38 Feet

Shoulders. Shoulders shall be provided in accordance with the design specifications (See Appendices).

1. Extension of Existing Streets. The extension of existing streets which are presently constructed with a cartway different from the standards of this Ordinance shall be provided with a transition area, the design of which is subject to approval by the Township Supervisors.
2. Dedication of Additional Right-Of-Way. If a subdivision or land development abuts an existing Township and/or State street which has a right-of-way width of less than the required right-of-way for new streets set forth in Section 602 I., the developer shall offer to dedicate to the Township or Commonwealth, as applicable, the amount of land necessary so that the distance from the centerline of the street to the edge of the right-of-way abutting the proposed development is one-half the ultimate right-of-way width set forth in Section 602 I.
3. Improvement of Existing Streets and Intersections. Where a subdivision or land development abuts an existing Township and/or State street or shall have a traffic impact on an existing Township and/or State street as indicated by a traffic study the developer shall be required to make the following improvements:
 - a. In cases where a subdivision or land development abuts an existing Township or State street, the street shall be improved to the ultimate width in accordance with the new street standards of Section 602 I.
 - b. In cases where the development is situated only on one side of an existing street, the Township may require that only that side of the

street be improved. The Township may require that both sides of the street be improved where the traffic impact study indicates that the improvements are necessary.

- c. Where the developer of the subdivision of land development is required to provide a traffic study and report, and the traffic study and report indicates that improvements are required, the developer shall install improvements, including but not limited to traffic signals, traffic control devices, additional traffic lanes, traffic dividers and highway markings.
- d. Where the traffic impact study indicates that improvements are necessary or advisable to existing Township and/or state streets and/or intersections within the traffic impact study area in order to (i) assure adequate, safe and convenient access to each lot and/or structure and/or parking compound proposed as part of the development of the tract, (ii) accommodate the traffic due to the proposed development, (iii) provide for a level of service and delay for the design year, or years for phase projects, with the development which is at least equivalent to the projected level of service and delay for the design year(s) without the proposed subdivision or development, and/or (iv) preserve the existing convenience of access to or ability to exit from abutting properties which gain access from the existing street, the developer shall, to the extent permitted by law, install additional traffic lanes, traffic dividers, traffic improvements. The developer shall install additional traffic lanes, traffic dividers, traffic control devices, traffic signals, and other measures as appropriate to ensure that the development of the tract does not adversely impact the existing street system and/or access to or the ability to exit from properties gaining access from an affected street. If the traffic impact study indicates that improvements must be made to a state street, the developer shall also take all action necessary to obtain any Penn DOT permits and/or approvals to install the necessary street widening and/or traffic signals and/or traffic signals and/or traffic signal modifications (including but not limited to preparation of all studies and submission of all necessary applications to enable the installation of the traffic signal or modifications) and shall install the traffic signal or modifications at its cost and expense. If the traffic impact study indicates that traffic control devices or regulations including, but not limited to, stop intersections, speed limit reductions, or parking prohibitions, are required, the developer shall prepare all studies necessary to justify imposition of such regulations in accordance with Penn DOT regulations and shall pay all costs associated with the preparation and enactment of an ordinance to establish such regulations. The developer shall bear

all costs and expenses in connection with the improvements required by this Section 602 K.3. If the developer requires the Township to submit any permit applications or requests for approvals in the name of the Township, the developer shall reimburse the Township for all costs and expenses incurred by the Township in connection with its review of the application and submission of the application to Penn DOT or any other governmental agency.

- e. When the Township determines that the required improvements are not feasible at the time of development of the use, the developer shall deposit funds with the Township in the amount of one hundred and ten (110%) percent of the cost of the improvements (including any design, permitting, or legal costs) computed in accordance with Part 5 of this Ordinance. The amount of the deposit shall be submitted for approval by the Township Engineer.

L. Street Improvements. All streets shall be designed and constructed in accordance with the latest edition of Penn DOT Publication 408 (Specifications), the construction details located in the Appendices and the following:

- 1. Subgrade. Roadway subgrade shall be graded to provide a minimum two (2%) percent cross-slope from centerline as indicated in the construction details in the Appendices. In all cases subgrade material shall be firm and dry prior to the installation of the proposed subbase material. In the instance of unsuitable subgrade conditions, the developer may excavate unsuitable material and replace with suitable crushed aggregate, install under drains, or utilize geotextile material in order to provide sound pavement structure in accordance with Penn DOT guidelines and as approved by the Township.
- 2. Required Paving Section. All roads to be constructed shall meet the following paving requirements:
 - a. Streets intended to serve as rural local roads and in residential developments shall be constructed as follows:
 - (1) Subbase Course – Six (6) inches of 2A subbase.
 - (2) Base Course – Five (5) inches of Bituminous Concrete Base Course or Superpave equivalent.
 - (3) Binder Course – Two and one-half (2-1/2) inches of Bituminous Concrete ID-2 Binder material or Superpave equivalent.

- (4) Wearing Course – One and one-half (1-1/2) inches of Bituminous Concrete ID-2 Wearing material or Superpave equivalent.
 - b. Streets intended to serve as collector or arterial roads or as part of industrial or commercial developments shall be constructed as follows:
 - (1) Subbase Course – Six (6) inches of 2A subbase.
 - (2) Base Course – Six (6) inches of Bituminous Concrete Base Course or Superpave equivalent.
 - (3) Binder Course – Three (3) inches of Bituminous Concrete ID-2 Binder material or Superpave equivalent.
 - (4) Wearing Course – One and one-half (1-1/2) inches of Bituminous Concrete ID-2 Wearing material or Superpave equivalent.
 - c. Except where curbs are to be installed, the subbase for all proposed roads shall extend one (1) foot beyond the edge of the paved cartway.
 - d. The maximum lifts for the installation of bituminous material shall be four (4) inches for base courses, three (3) inches for binder courses and two (2) inches for wearing courses.
 - e. All vertical pavement joints shall be staggered by a minimum distance of one foot.
 - f. Tack coat shall be applied as needed.
3. Construction Observation. The developer shall notify the Township forty-eight (48) hours in advance of the date of intended installation of each roadway course so that the preceding course can be inspected, and proof-rolled, as necessary.
4. Trench Restoration. Excavation within, or adjacent to streets shall be restored in accordance with the construction details located in the Appendices and the following:
 - a. Trench restoration shall proceed as promptly as is possible. Trenches which must remain open for longer periods of time shall be properly plated and delineated for oncoming traffic.

- b. The remainder of the trench shall be backfilled with 2-RC or 2A and promptly compacted. The backfill material shall be mechanically tamped in approximately six (6) inches layers.
 - c. Where openings are made behind the curb line, work shall be performed as required in these specifications, and the opening covered with good topsoil to a depth of six (6) inches, and seeded or sodded to the Township's satisfaction.
 - d. Whenever the trenches have not been properly filled, or if settlement occurs, they shall be refilled, compacted, smoothed off, and finally made to conform to the surface of the ground.
 - e. Frozen material shall not be used for backfill, nor shall any backfilling be done when materials already in the trench are frozen.
5. Weather Limitation. Criteria for placement of bituminous materials during cold or inclement weather shall be in accordance with the latest edition of Penn DOT Publication 408 (Specification).
6. Accessibility. Street construction shall be complete with the installation of the required binder course for streets to be considered accessible to occupied lots.

M. Street Intersections.

- 1. Multiple intersections involving the junction of more than two streets are prohibited.
- 2. The distance between the centerline of streets opening onto the opposite sides of existing or proposed streets shall be no less than 150 feet between centerlines, measured along the centerline of the local street being intersected.
- 3. Intersections with collector streets shall be located not closer than four hundred (400) feet, measured from centerline to centerline, along the centerline of the collector street being intersected.
- 4. Intersections with arterial streets shall be located not closer than one thousand (1,000) feet, measured from center line, along the center line of the arterial being intersected.
- 5. Right angle intersections shall be used whenever possible. No street shall intersect another at an angle of less than seventy-five (75) degrees.

6. The cartway edge street intersections shall be rounded by a tangential arc with a minimum radius of twenty-five (25) feet for local streets or alleys and fifty-five (55) feet for intersections involving collector or arterial streets. The right-of-way radii at intersections shall be substantially concentric with the edge of the cartway.

N. Sight Distance and Stopping Sight Distance at Street Intersections.

1. Clear Sight Triangles. There shall be provided and maintained at all street intersections a clear sight triangle of at least one hundred (100) feet as measured from the intersection of the street centerlines in all directions. Clear sight triangles shall be indicated on all plans, and a note shall be provided on the plans which states that no structures, landscaping or grading may be constructed, installed or performed within the area of the clear sight triangle which would obscure the vision of motorists. Deeds to lots which contain clear sight triangles shall include the requirement of this Section.
2. Safe Stopping Sight Distance (SSSD):
 - a. Street intersections shall be located at a point which provides optimal sight distance in both directions.
 - b. Calculation of Safe Stopping Sight Distance (SSSD).
 - (1) For each intersection, the available sight distance for each direction shall equal or exceed the SSSD computed from the following formula:

$$SSSD = 1.47Vt + \{V^2 / [30 \times (f+G)]\} \quad \text{WHERE:}$$

SSSD = Safe stopping sight distance (feet).

V = Speed limit, or 85th percentile speed or safe operating speed.

t = Perception time of driver (2.5 seconds).

f = Wet friction of pavement as follows:

<u>Speed</u>	<u>f</u>
25 mph	0.38
30 mph	0.35
35 mph	0.34
40 mph	0.32
45 mph	0.31
50 mph	0.30
55 mpg	0.30

G = Percent grade of roadway divided by 100.

- (2) If the 85th percentile speed varies by more than ten (10) miles per hour from the speed limit, the Township may require the 85th percentile speed to be used to determine stopping distance.
- (3) Table 3 depicts stopping sight distance for selected speeds. The sight distances in Table 3 apply for roadway grades in whole numbers from +13% to -13% along with speeds from 15 to 60 miles per hour in increments of 5 miles per hour. The designer may use this table in lieu of the above formula

Table 3

FORMULA SIGHT DISTANCE TABLE

Speed (V) (Miles Per Hour)	Average Grade (G) (Percent)										
	<u>0.0</u>	<u>+1.0</u>	<u>+2.0</u>	<u>+3.0</u>	<u>+4.0</u>	<u>+5.0</u>	<u>+6.0</u>	<u>+7.0</u>	<u>+8.0</u>	<u>+9.0</u>	<u>+10.0</u>
25	147	145	144	143	142	140	139	138	137	136	135
30	196	194	191	189	187	185	183	182	180	178	177
35	249	245	242	239	236	233	231	228	226	224	221
40	314	309	304	299	295	291	287	284	280	277	274
45	383	376	370	364	358	353	348	343	339	334	330
50	462	453	444	436	429	422	415	409	403	397	392
55	538	527	517	508	499	490	482	475	468	461	454
	<u>0.0</u>	<u>-1.0</u>	<u>-2.0</u>	<u>-3.0</u>	<u>-4.0</u>	<u>-5.0</u>	<u>-6.0</u>	<u>-7.0</u>	<u>-8.0</u>	<u>-9.0</u>	<u>-10.0</u>
25	147	148	150	151	153	155	157	159	161	164	166
30	196	199	201	204	207	210	214	217	221	226	230
35	249	252	256	260	265	269	275	280	286	292	299
40	314	319	325	331	338	345	352	360	369	379	389
45	383	390	398	406	415	425	435	447	459	472	487
50	462	471	481	492	504	517	531	546	563	581	600
55	538	550	562	576	590	606	622	641	661	682	706

c. Measurement of Sight Distance.

- (1) The correct measurement of available sight distance at each proposed street intersection shall be the responsibility of the applicant.
- (2) For the purpose of measuring available sight distance, the height of each driver's eyes shall be 3.50 feet above the road surface, and the height of each vehicle shall be 4.25 feet above the road surface. The lateral placement of vehicles on the roadway and at the proposed access point

shall be consistent with the operation of the access and roadway.

- (3) For each direction, the shortest of the following measurements shall be considered the available sight distance for that direction:
 - (a) The maximum length of roadway along which a driver at the proposed street intersection can continuously see another vehicle approaching on the roadway. The driver's eyes at the proposed point of access shall be ten (10) feet back from the near edge of the closest travel lane.
 - (b) The maximum length of roadway along which a driver on the roadway can continuously see a vehicle which is located in his travel lane on the roadway in order to make a left turn into the proposed access or as a result of a left or right turn out of the proposed access.
 - (c) The maximum length of roadway along which the driver of a vehicle intending to make a left turn into the proposed access can continuously see vehicles approaching from the other direction. This is measured from the point where the left turning vehicle stops.
- d. Inadequate sight distance remedies. If it is impossible to achieve required stopping sight distance, in both directions the Township may:
 - (1) Prohibit left turns by entering or exiting vehicles.
 - (2) Require alteration of the horizontal or vertical geometry of the roadway or access; all such work shall be at the expense of the applicant.
 - (3) Require removal of physical obstruction from the line of sight, at the expense of the applicant.
 - (4) Deny access to the roadway.
3. Proper sight distance shall be provided with respect to both horizontal and vertical road alignments at all intersections.

4. All streets intersecting a State Route shall be subject to the approval of the Pennsylvania Department of Transportation.

- O. Cul-De-Sac Streets. A cul-de-sac will not be approved when a through street is more advantageous. Permanent cul-de-sac streets shall have a minimum length of three hundred (300) feet and shall not exceed a centerline distance of six hundred (600) feet in length, measured from the centerline intersection with a street which is not a cul-de-sac to the center of the cul-de-sac turnaround. Temporary cul-de-sac streets shall have a minimum length of three hundred (300) feet and shall not exceed eight hundred (800) feet in length, measured from the centerline intersection with a street which is not a cul-de-sac to the center of the cul-de-sac turnaround. Any street which is terminated for access to an adjoining property or because of authorized stage development shall be provided with a temporary, all weather turnaround. The use of such turnaround shall be guaranteed until such time as the street is extended.

All cul-de-sac streets, whether permanently or temporarily designed, shall be provided at the closed end with a fully-paved, closed-end, turnaround at a minimum width/diameter of one hundred (100) feet and a right-of-way width/diameter of one hundred twenty (120) feet. The use of a temporary turnaround shall be guaranteed until the street is extended. A right side centerline off-set for the turnaround is desired. A left side centerline off-set of the turnaround is prohibited.

All permanent cul-de-sacs shall be designed with a snow removal easement at the terminus. The easement shall extend outward from the street right-of-way and be twenty-eight (28) feet wide and twenty (20) feet deep from the street curb line. The easement shall be centered on the projected center line of the street. The Final Plan shall contain a note stating that the easement shall be maintained as open space and no improvements or obstructions such as driveways, mailboxes, fences, hydrants, landscaping and other facilities that may hamper snow storage, or may require accessibility during snow periods shall be permitted.

The developer who extends a street which has been provided with a temporary turnaround shall be required to remove the temporary turnaround and restore the area of the temporary turnaround.

- P. Future Rights-of-Way. Future rights-of-way are rights-of-way reserved for future street improvements. They shall be designed in conformance with the design requirements of a street, and the contiguous parcels must contain proper setbacks and sight distances.

1. The area within the future right-of-way shall be included within the deeds to the abutting lots with an easement in favor of the Township and landowners of the land into which the future right-of-way will extend to

permit the use of the future right-of-way for public street purposes should the adjoining lands be developed.

2. The landowners of the lots in which the future right-of-way is included shall have the duty to maintain the area included within the future right-of-way and this duty shall be indicated in a note on the Final Plan and in all deeds to such lots.
 3. The landowners of the lots in which the future right-of-way is included shall have no obligation concerning the improvement of such future right-of-way for street purposes.
- Q. Special Purpose Street. Off-street parking must be provided which abut a special purpose street, and the prohibition of on-street parking must be identified along the cartway.
- R. Service Streets. Service streets are permitted only where required to provide direct driveway access to collector streets. Additional use of service streets may be permitted via the waiver process, provided that the applicant produces evidence satisfactory for the need, and provided these are not the primary means of access.
1. Where permitted, service streets shall have a minimum paved width of twenty (20) feet, however, where service streets serve parcels on only one side and will be one way, the Township Supervisors may permit a paved surface of not less than twelve (12) feet.
 2. Dead end service streets should be avoided, but where this proves impossible, dead end service streets shall be terminated with a paved, circular turnaround with a minimum radius to the outer pavement edge of forty (40) feet.
 3. Service street intersections shall be designed in accordance with Section 602 J. and 602 K. of this Ordinance.
- S. Alleys. The use of alleys is limited to providing a primary means of access to the side and/or rear of those lots with street frontage and designed to discharge through traffic. Alleys shall conform to the following standards:
1. A lot which utilizes an alley shall maintain frontage along a public or private street.
 2. An application that proposes alleys shall be accompanied by an agreement which shall be recorded with the Final Plan and which shall establish the conditions under which the alleys will be maintained.

3. The Final Plan for recordation with the Recorder of Deeds shall include a plan note which identifies (1) the specific alleys, (2) the recorded maintenance agreement, and (3) a notification that the alleys do not qualify for dedication to the Township and that the Township will not assume any responsibility for their maintenance.
4. The cartway of all alleys shall be provided and constructed in accordance with the specifications for local streets as stated in Sections 602 K. and 602 L.
5. The vertical and horizontal alignments of alleys shall conform to the specifications for local streets as stated in Section 602 I. and 602 . respectively.
6. Alley intersections shall conform to the specifications for local streets in Section 602 N.
7. No part of any structure shall be located within thirty (30) feet from the cartway edge of an alley.
8. Alleys which form a cul-de-sac shall not exceed four hundred (400) feet in length, measured form the centerline intersection of a street or private street which is not a cul-de-sac. Alley cul-de-sacs which do not terminate in a parking compound shall be provided at the terminus with a fully paved turnaround. The turnaround shall be designed with an eighty (80) foot paved diameter.
9. Alley Maintenance. The Final Plan shall contain a note which states that the alley shall not be offered for dedicated and shall be privately maintained.
 - a. If an alley is to be for the common use of two or more properties, the applicant shall provide for the maintenance of such alley. The applicant shall provide for private maintenance through the formation of the homeowner's association or through the setting forth of the maintenance responsibilities in easement in the deeds to the lots which have the right to use the alley. If a homeowners' association is formed, a document setting forth the maintenance responsibilities of such association and the right of such association to assess lots within the development shall be recorded at the same time as the Final Plan is recorded. All such documents shall be in a form acceptable to the Township Solicitor.
 - b. All persons who shall purchase a lot abutting or having the right to use an alley shall be given a copy of the Final Plan, and, if a homeowners' association has been formed, shall be given a copy

of all such documents relating to the maintenance responsibilities of such homeowners' association.

T. Access Drives.

1. Access drives, as defined in Section 203, shall have the following characteristics:
 - a. A property which utilizes access drives shall maintain frontage along a public or private street.
 - b. An application that proposes access drives shall be accompanied by an agreement which shall be recorded with the Final Plan and which shall establish the conditions under which the access drives will be maintained.
 - c. The Final Plan, for recordation with the Lancaster County Recorder of Deeds, shall include a plan note which identifies: (1) the specific access drives, (2) the recorded maintenance agreement; and, (3) a notification that the access drives do not qualify for dedication to the Township and that the Township will not assume any responsibility for their maintenance.
2. The cartway of all access drives shall be constructed in accordance with the specification for local streets as stated in Section 602 I.2.
3. Access drives do not require a specific right-of-way; however, the following standards for cartway width shall apply;

Table 4

Function	Cartway Width
Two lanes of traffic with on-street parking	36 Feet
Two lanes of traffic with-out on-street parking*	24 Feet
One lane of traffic with one lane of on-street parking*	20 Feet
One lane of traffic with-out on-street parking*	12 Feet

* Off-street parking compounds must be provided in accordance with Section 603 of this Ordinance and the prohibition of on-street parking must be identified along the cartway.

** The one-way direction of traffic must be identified along the cartway.

4. No part of any structure shall be located closer to the cartway edge of an access drive than allowed by the regulations set forth in the Zoning Ordinance of Clay Township.
 5. The vertical and horizontal alignment of access drives shall conform to the specifications for local streets assisted in Sections 602 G. and 602 H., respectively.
 6. Access drive intersections shall conform to the specifications for local streets as stated in Section 602 K.
 7. Access drives which form a cul-de-sac shall not exceed one thousand, six hundred (1,600) feet in length, measured from the centerline intersection of a street or access drive which is not a cul-de-sac. Access drive cul-de-sacs which don't terminate in a parking compound shall be provided at the terminus with a fully paved turnaround. The turnaround shall be designed in accordance with one of the following methods:
 - a. A minimum eighty (80) foot paved diameter. Increased diameter may be required based on the proposed use(s).
 - b. T-shaped turnaround with a twelve (12) foot width and the flared portions rounded by minimum radii of twenty (20) feet.
 8. All access drives, residential access drives, parking areas, and parking compounds shall be paved. The following standards shall be used as a minimum: six inches (6") of 2A subbase, three inches (3") of ID- 2 binder course or Superpave equivalent and one and one-half inches (1-1/2") of ID- 2 wearing course or Superpave equivalent.
- U. Driveways. Driveways, as defined in Section 203, shall conform with the following requirements.
1. Driveways shall be located as to provide minimum safe stopping distance at intersections in accordance with the standards of Section 602 K.2. and shall not be located within any clear site triangles on abutting streets or access drives.
 2. Driveways shall be located at least forty (40') feet from the cartway edge at street or access drive intersections. Access shall be provided and maintained to the street or access drive of lesser classification or lesser traffic volumes. They shall not interfere with the normal driveway traffic movement or be inconsistent with the design, maintenance, and drainage of the street or access drive.

3. Driveways shall be located a minimum of three (3) feet from any property line, except where a common driveway crosses a property line. The number of access points to a street or access drive shall be one (1).
4. Driveways shall maintain a minimum width of ten (10') feet over the entire length and have a maximum width of thirty (30') feet within the street right-of-way or the intersection with an access drive.
5. Common driveways may be used when extraordinary topographic or other physical circumstances exist and if approved by the Township. Common driveways are prohibited for access to or use by more than two (2) lots or units of occupancy. When common driveways are permitted, an access and maintenance agreement shall be provided for each lot and recorded. The agreement shall be in a format reasonably acceptable to the Township Solicitor and consistent with any agreement that has previously been adopted by the Board of Supervisors, pursuant to the provisions hereof, but at a minimum should address maintenance, access and repair, and shall be prepared and recorded consistent with the provisions of Sections 508.F.2 and 606 hereof.
6. Driveways shall contain paved entrances a minimum of twenty five (25) feet from the street or access drive. All paved entrances must be constructed to provide proper drainage and continuation of the existing shoulder configuration. The following paving standards shall be used as a minimum: four (4") inches of 2A subbase and two (2") inches of ID-2, known as bituminous paving, or approved equivalent.
7. Driveways shall have a maximum slope of eight (8%) percent for a distance of twenty-five (25') feet from the street or access drive. Where a driveway or common driveway exceeds, or is expected to exceed a slope of twelve (12%) percent, special grading and/or drainage provisions may be required by the Township.
8. When a proposed driveway will access a street or access drive which, in the opinion of the Township, has large traffic volumes, higher traffic speeds, or poor sight distances the Township may require the use of a turn-around to prevent vehicles from backing onto the street or access drive. The design of the turnaround is subject to Township approval.
9. Subdivisions and Land Developments shall be provided with internal streets to which lots will have driveway access in order to minimize the number of driveway intersections with existing public streets. This reduction in driveway intersections will lessen interruptions with the traffic flow and accident hazards and minimize sedimentation and runoff problems on to existing public streets.

- V. Specific Traffic Control and Access Requirements. The following specific traffic control and access requirements shall be met for developments which produce 100 peak hour directional trips.
1. If any traffic signals are to be installed, the distance between any new and/or existing signals shall be at least one thousand (1,000) feet unless the developer demonstrates that adjacent traffic signals can operate sufficiently at lesser distances.
 2. Design of proposed development access points shall take into consideration the horizontal and vertical grades of the existing road network in the traffic impact study area to permit safe and convenient access to the site as defined in the latest Penn DOT and regulations. All modifications required to meet these regulations will be the responsibility of the developer.
 3. The developer shall demonstrate by using the latest Penn DOT standards and regulations that the proposed use will not create traffic patterns and movements which will jeopardize the traveling public.
 - a. Stacking of sufficient length shall be provide in all traffic lanes on the site and off the site on adjacent roadways to insure that there shall be no blockage of through traffic. The design and length of the stacking lanes shall be justified and supported by the queuing analysis required as part of the traffic impact study.
 - b. Street and/or access drives to and within the site shall be designed in a manner that blockage of through traffic by vehicles attempting to enter or exit on these streets or access drives will not occur.
 - c. Acceleration, deceleration and turning lanes shall be of sufficient lengths to accomplish their intended use.
 4. If reduction of the speed limit, installation of traffic control devices, limitation of parking or turning movements or similar measures are required to mitigate traffic impacts upon Township or state highways, the applicant shall present traffic studies performed in accordance with Penn DOT regulations and Publication No. 201, Engineering and Traffic Study regulations and Penn DOT's Policies and Procedures for Transportation Impact Studies Related to Highway Occupancy Permits. The erection or the installation of such traffic control devices shall be in accordance with Title 67, Chapter 211, Official Traffic Control Devices, of Penn DOT regulations. If the enactment of an ordinance is necessary to effectuate the traffic regulations or the installation of the traffic control device, the applicant shall reimburse the Township for all expenses in the preparation and enactment of the necessary ordinance.

5. No street shall be located in a manner which would limit access to or exiting from abutting properties gaining access from the existing street with which a proposed street will intersect unless the developer provides such lots with alternate access from the proposed street system in a manner acceptable to each affected lot owner. It shall be the burden of the applicant to demonstrate that such access is acceptable to all owners of an affected lot. For the purpose of this provision, limitation of access shall include the limitation of turning movements into or exiting the abutting property or properties gaining access from the existing street, whether by traffic regulations, installation of barriers to prevent turning movements, installation of additional traffic lanes in front of a property, or difficulties or delays resulting from increased traffic flows.
6. Where new intersections are being established to serve as access to the proposed development, these intersections must be designed to at least operate at a Level of Service C or better.
7. For access points to the proposed development and any major intersections where traffic signal control may be required or is being proposed, a traffic signal warrant analysis shall be performed in accordance with the requirements of Penn DOT Publication 201. A left turn lane shall be provided and analysis shall be completed to determine the type of signal phasing required.
8. Emergency traffic signal preemption shall be addressed and provided as required.
9. Additional left and right turning lanes shall be provided to address the existing roadway site conditions and access to the proposed development.
10. An agreement between the Township and the developer shall be provided with regard to operating expenses and maintenance of proposed traffic signals.
11. Additional through lanes and lane transitions of sufficient length shall be provided to allow smooth traffic flow to existing traffic lanes thus minimizing congestion, delay and blockage or through traffic within the proposed improvement area. The design and length should be justified and supported by the queuing analysis required as part of the traffic impact study.
12. Sidewalks shall be provided along the property frontage and within the development.

W. Street Lights.

1. The developer shall install poles or standards for street lights, with underground "parkway cable" service lines, when the Township requires. Such facilities shall be located in the right-of-way and shall be placed at each intersection and no more than three hundred fifty (350) feet apart. The Township shall approve the facilities as to type and location within the right-of-way.
2. Street lighting shall be designed to provide a minimum average of one (1) foot-candle at an elevation of three (3) feet above the road surface.

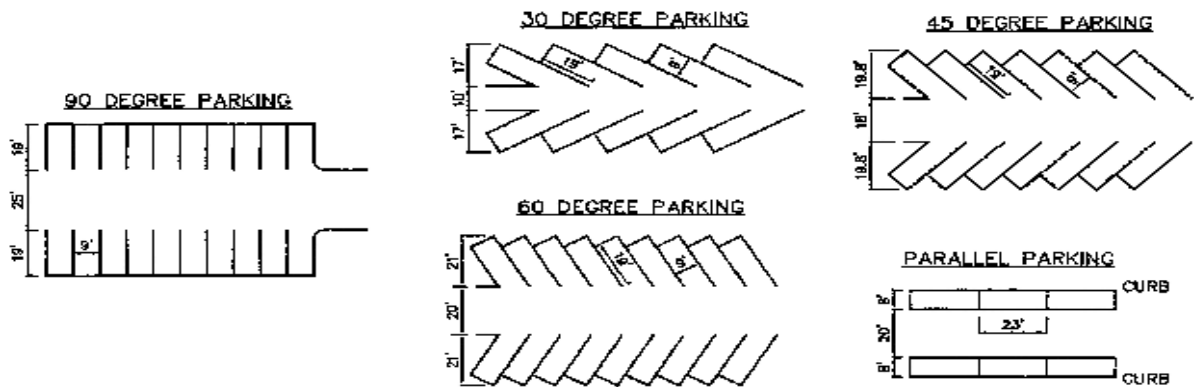
X. Handicap Provisions. All public areas shall be designed barrier-free in accordance with applicable federal and state standards, including but not limited to the Rehabilitation Act.

Y. Pavement Markings. When crosswalks and traffic legends are required, they shall be constructed of thermoplastic in accordance with Penn DOT requirements.

SECTION 603 VEHICULAR PARKING FACILITIES, SIDEWALKS AND CURBS

A. Parking Areas. Off-street vehicular parking facilities shall be provided in accordance with the regulations set forth in the zoning ordinance of Clay Township.

1. Vehicular parking facilities shall be designed in accordance with the following provisions:
 - a. Parking compounds shall not be permitted within ten (10) feet of any property line. Parking compounds and parking areas shall not be permitted within ten (10) feet of a public road right-of-way.
 - b. Parking compound dimensions shall be no less than those listed in the following chart.



- c. Buffer planting shall be provided where parking compounds are adjacent to residential properties. The buffer planting area shall be at least fifteen (15) feet wide Buffer planting shall be installed in accordance with Section 609 A. of this Ordinance.
- d. Not less than a four (4) foot radius of curvature shall be permitted for horizontal curves in parking compounds.
- e. All dead end parking facilities shall be designed to provide sufficient back-up area for all end stalls.
- f. Painted lines, arrows, and dividers shall be provided in all parking compounds and maintained to control parking, and when necessary to direct vehicular circulation.
- g. Parking compounds, access drive, main entrances, and exits which are open to the public shall be lighted to a minimum average of two (2) foot-candles at an elevation of three (3) feet above the surface. All lighting shall be so arranged as to reflect the light away from adjoining premises and public rights-of-way. Photometric plans and sufficient details will need to be provided to demonstrate compliance with this requirement.
- h. Required parking spaces shall be exclusive of interior drives or maneuvering areas.
- i. Interior drives shall be clearly marked by adequate painting, marking, curbing and signs so that operators of vehicles intending to patronize such parking areas shall not impede traffic as a result of any confusion as to location of entrances and exits and manner of reaching them.

- j. Parking compounds of over twenty (20) vehicles shall be divided by permanent raised curbing and/or planting strips so that access lanes are clearly defined, and so that moving traffic will be confined to designated access lanes.
- k. Outdoor parking or service areas for uses open to the public, and the approaches there to, shall be paved to Township specifications, and shall be graded, properly drained and maintained in a good condition.
- l. Any parking for five (5) or more vehicles on a lot which abuts a residential district(s) or a lot used for residential purposes, whether single-family or multi-family, shall be screened from the adjacent property by an effective screen the entire length of the parking lot, according to the requirements of Section 609.
- m. Parking compounds shall be landscaped in accordance with Section 609.
- n. Parking spaces shall be clearly delineated by suitable markings. Short term visitors' parking spaces shall be differentiated from long-term employee spaces by suitable markings.
- o. Handicapped Parking. handicapped accessible parking shall be provided in accordance with the requirements of the Americans with Disability Act, or any applicable State or Federal Law of Regulation as may be amended from time to time. Minimum parking spaces shall be provided in accordance with the following Table:

Table 5

TOTAL PARKING IN LOT	REQUIRED MINIMUM NUMBER OF ACCESSIBLE SPACES
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20 plus 1 for each 100 over 1000

- (1) Said handicapped spaces shall be most accessible and approximate to the building or buildings which the parking spaces shall serve.
- (2) Each space or group of handicapped spaces shall be identified with a clearly visible sign displaying the international symbol of access.
- (3) Each handicapped space shall be one hundred thirty-two (132) inches wide with a sixty (60) inch access aisle to allow room for persons in wheelchairs or on braces or crutches to get in and out of either side of an automobile onto level, paved surface suitable for wheeling and walking.
- (4) Where possible, such handicapped spaces shall be located so that persons in wheelchairs or using braces or crutches.
- (5) In the case of multi-family residential uses, including townhouse developments, the number of required handicapped spaces shall be in addition to the parking spaces required by the zoning ordinance.

At a minimum there shall also be compliance with the Americans With Disabilities Act (PLEA), enacted by the Federal Government, July 1990, as amended, the Federal Register, volume 56, number 144, Rules and Regulations, as amended or any Applicable State or Federal Law or Regulation, as may be amended from time to time.

- p. Parking compounds shall be paved to the specifications outlined in 602 T.8.
2. The following additional parking criteria shall apply to uses in the LI District:
- a. No on-street parking is allowed.
 - b. No parking shall be permitted in front of the building, with the following exceptions:
 - (1) No more than ten (10) percent of the total required spaces or ten (10) spaces, whichever is less, shall be located in front of the building.

- (2) Parking area shall not extend past the width of the front wall of the building.
 - (3) Parking area shall be limited to one (1) row of spaces.
 - (4) Parking spaces shall be limited for use by handicapped and non-employee parking.
 - c. No parking shall be permitted within any building setback.
 - d. All parking and loading areas shall be paved in accordance with Township specifications.
 - e. All parking areas shall be located a minimum of thirty (30) feet from any buildings.
- B. Sidewalks. Sidewalks shall be provided in accordance with the following specifications.

- 1. Sidewalks shall be provided along the entire length of any lot fronting on a Principal Arterial or Minor Arterial in the FR, AG or AT zoning districts. Sidewalks shall be provided along the entire length of a lot fronting on any street in all other zoning districts.

Additionally, sidewalks shall be required in the following circumstances. This would include the requirements that sidewalks shall be provided along the entire length of lots fronting on any streets.

- a. To continue existing sidewalk systems to the terminus of a service area or block.
 - b. To provide access to vehicular parking compounds.
 - c. To provide access to and/or within a non- residential (except farm) facility and multi-family residential uses. Sidewalks which are provided as part of such non-residential facilities shall be designed and constructed to service the projected pedestrian needs. Where unusual or particular conditions prevail with respect to prospective traffic and/or safety of pedestrians, the Township Supervisors shall require specific standards of improvement.
- 2. Sidewalks shall be designed and constructed in accordance with the following standards:
 - a. Sidewalks which are provided as part of a residential subdivision plan shall be located along the side(s) of the street upon which lots front. These sidewalks shall be constructed in accordance with the

specifications included in the Appendices and shall be located within the street right-of-way.

- b. Sidewalks which are provided as part of a residential land development plan shall be located along the existing street frontage of the tract, along both sides of proposed streets and/or access drives through the project, and adjacent to vehicular parking compounds. These sidewalk locations may be varied if, in the judgment of the Township Supervisors, the proposed alternate system meets the projected need for pedestrian circulation. Sidewalks located adjacent to public streets shall be constructed in accordance with the specifications included in the Appendices and shall be located within the street right-of-way line. Sidewalks located adjacent to driveways, access drives, and parking compounds shall be located on at least one (1) side and may be constructed of any material acceptable to the developer. Such sidewalks need not be located at any prescribed setback; however, the sidewalk area must be physically divided from the driveway or parking areas. (e.g. curb, grass strip).
- c. Pedestrian easements, which may be required by the Township Supervisors to facilitate pedestrian circulation or to give access to community facilities, shall have a minimum right-of-way width of six (6) feet and a walkway width of four (4) feet. This walkway shall be improved to the standards assigned by the authority which accepts the easements.

- 3. Each plan will contain a note to the effect of the following:

“Developer shall be responsible for and bear the sole cost of the installation of all curbs and sidewalks, shown on this Plan. Sidewalks shall, be constructed in accordance with all requirements of this Ordinance and Other provisions. The owner of each lot shall be responsible for the care and maintenance of the curbing and sidewalk along the full frontage of each lot. Curbs and sidewalks shall be kept in a continuous and constant state of repair and shall be generally maintained in a good and safe condition, with a smooth surface, only minor cracks, no bulging, and free of obstructions, ice and snow. The Township of Clay shall be considered as a third party beneficiary of this note and shall. have the full right, but no duty, to enforce the terms hereof.”

- C. Curbs. Curbs shall be provided in accordance with the following specifications: (See Appendices)

- 1. Curbs shall be provided on all new streets.

2. Curbs shall be provided where sidewalk is required or provided.
3. Where curbing is required, vertical curbs shall be used on all State Highways, subject to Pennsylvania Department of Transportation approval. Vertical Curbing shall be required on all Township Streets with the classification of Collector Street or higher. Slant Curbs may be used upon Township approval.
4. All curbs shall be constructed in accordance with the respective specifications contained in the Appendices.

D. Interior Circulation and Fire/Emergency Access.

1. Interior drives shall be designed to prevent blockage of vehicles entering or leaving the site, and shall be clearly marked by signs, curbing or lines. Drives may be one-way or two-way. Areas designated for loading and unloading, refuse collection, fuel, delivery and other service vehicles shall be separated and arranged so as to prevent blocking or interfering with access ways, the use of automobile parking facilities or pedestrian ways, and shall have adequate turn-around surface so egress to the street is in a forward direction.
2. No structure in industrial use shall be located more than one hundred fifty (150) feet from a duly dedicated, improved and accessible fire lane easement as defined herein nor more than six hundred (600) feet from a duly dedicated, accessible and improved public or private street.
3. Fire lane easements shall have minimum unobstructed right-of-way width of forty (40) feet, and there shall be constructed within this right-of-way an all weather and well drained surfaced cartway with a minimum width of twenty (20) feet. The extension of fire lane easements shall begin from one or more existing and improved public streets.
4. Fire lane easements which curve, turn or change direction shall have a minimum radius of fifty-five (55) feet of pavement. Fire lane easements containing reverse curves shall have a minimum centerline tangent length of fifty (50) feet between curves.
5. Dead-end fire lane easements shall be terminated with an unobstructed vehicular turnaround of cul-de-sac with a right-of-way radius of forty-five (45) feet and shall have a minimum surfaced radius of thirty-five (35) feet. Dead-end fire lane easements shall have a maximum length of five hundred (500) feet. The location of the fire lane easements shall conform to plans for extension of street sanitary sewers, water mains, storm sewers, and other drainage facilities and public utilities as contained in

this and other ordinances of the Township and shall provide adequate access to buildings by firemen or other emergency services.

6. Emergency Access Requirements. All subdivisions or land developments containing twenty (20) or more dwelling units, or non-residential buildings containing fifteen thousand (15,000) or greater square feet of gross floor area shall be provided with at least two (2) separate and distinct means of access from existing public streets.
 - a. Access may be provided through the location of two (2) or more public or private streets, each of which intersects with an existing public street. Such public or private streets shall meet all the requirements of this Ordinance concerning design and construction.
 - b. Access for a land development may be provided through two (2) or more access drives into the land development, each of which intersects with an existing public street. Such access drives shall be separated by a distance of at least one hundred fifty (150) feet and shall comply with all requirements of this Ordinance.
 - c. If the applicant is unable to provide access to the subdivision or land development through two (2) or more public or private streets, each of which intersect with an existing public street or two (2) or more access drives which intersect with one or more existing public streets, an emergency access shall be provided.
 - (1) The emergency access shall be improved so that emergency vehicles may safely transverse it and shall be indicated on the plans.
 - (2) The emergency access shall be acceptable to the providers of emergency services within the Township. Applicants proposing to provide emergency access shall submit evidence of such approval.
 - (3) The emergency access may be located so that access to the subdivision or land development is gained from a public street at a location unsuitable for regular access with an existing public street.
 - (4) The emergency access may be located so that access is gained from an adjacent tract. For example, a subdivision or land development adjoining a parking lot of another use may provide emergency access through a point with a break chain. Applicants with plans indicating emergency access

through an adjoining private tract shall provide evidence that the adjoining property owner has consented to such emergency access location.

E. Loading and Unloading.

In connection with any building or structure which erected or substantially altered and which requires the receipt or distribution of materials or merchandise by trucks or similar vehicles, there shall be provided a sufficient number of paved off-street loading and unloading berths not less than the minimum requirements specified in this section.

1. Location.

All required loading areas shall be located on the same lot as the use to be served, and no portion of the vehicle shall project into any traffic lane. No permitted or required loading area shall be located within thirty-five (35) feet of a property line. Loading facilities shall be located either on the side or rear of the building and shall be properly screened.

2. Size.

A required off-street loading area shall be at least fifteen (15) feet in width by at least seventy (70) feet in length, exclusive of the aisle and maneuvering space, and shall have a vertical clearance of at least sixteen (16) feet.

3. Access.

Each required off-street loading area shall be designed with appropriate means of vehicular access to an interior drive in a manner which will least interfere with traffic movements. Such access shall have paved surfaces to provide safe and convenient access during all seasons.

4. Surfacing.

All outside off-street loading areas shall be improved according to the standards of this Ordinance.

5. Repair and Service - Industrial Districts.

No storage of any kind, nor motor vehicle repair work of any kind, except emergency work, shall be permitted within any required loading area in an industrial district.

6. Space Allowed.

Space allocated to any required off-street loading berth shall not be used to satisfy the space requirements of any off-street parking facilities or portions thereof. Required off-street parking spaces shall, not be used for loading and unloading purposes except during hours when business operations are suspended.

F. Non-Motorized Vehicle Parking Facilities.

Non-motorized vehicle parking facilities shall be provided in accordance with the following regulations when non-motorized vehicle use could occur:

1. Bicycle Parking Facilities.

Bicycle parking facilities for non-residential land uses shall be provided in accordance with the following regulations:

- a. Each bicycle space shall be equipped with a device to which a bicycle frame and one (1) wheel can be attached using a chain or cable. There shall be adequate separation between adjacent devices to allow bicycles to be attached or removed without moving other bicycles. The devices shall also be suitable for use by bicycles not equipped with kickstands, and the appearance of the device shall be generally consistent with nearby design features.
- b. Bicycle parking spaces shall be convenient to the structure for which they are provided. They shall be visible from at least one (1) entrance to the structure.
- c. For every 50 vehicular spaces required, 3 bicycle parking spaces shall be provided, not to exceed a total of 9 required bicycle parking spaces.

2. Horse and Buggy Parking.

Horse and buggy parking facilities for non-residential land uses may be provided in accordance with the following regulations:

- a. Each horse and buggy parking area shall be equipped with a device to which the horse can be hitched. A hitching rail is acceptable.
- b. Adequate signage shall be provided to direct horse and buggy circulation.

- c. At least one horse and buggy parking facility should include a covered shelter/shed protected from the north and west (winter) winds.
- d. Horse and buggy parking areas shall be located as to minimize conflicts with motorized vehicles.

SECTION 604 BLOCKS AND LOTS

- A. The configuration of blocks and lots shall be based upon the lot area requirements, the salient natural features, the existing manmade features, and the proposed type of structure. Lot configurations should provide for flexibility in building locations, while providing safe vehicular and pedestrian circulation. Lots with areas that are two or more times the minimum requirements shall, wherever feasible, be designed with configurations which allow for additional subdivision.
- B. Residential Blocks. All blocks in a residential subdivision shall have a maximum length of one thousand, six hundred (1,600) feet.
- C. Non-Residential Blocks. Blocks in non-residential areas may vary from the requirement of Section 604 B. when required by the nature of the use, and if approved by the Board of Supervisors. Adequate provisions shall be made for off-street parking, loading areas, and traffic circulation.
- D. Lot and Parcel Configuration.
 - 1. Whenever practical, side lot lines shall be radial to street lines.
 - 2. In order to avoid jurisdictional problems, lot lines shall, wherever feasible, follow municipal boundaries rather than cross them. Where a lot is divided by a municipal boundary, the minimum standards of both municipalities shall apply.
 - 3. All lots shall contain an average depth not less than one (1) nor more than three (3) times their width.
 - 4. Double frontage lots are prohibited except where provided as reverse frontage lots. Reverse frontage lots are only permitted when a reduction of driveway intersections along a street with a high volume of vehicular movements is desired. All reverse frontage lots shall include an identification of the frontage for use as a road access.
 - 5. All residential reverse frontage lots shall have a rear yard in accordance with the Zoning Ordinance, measured at the shortest distance from the proposed dwelling unit to the street right-of-way and shall, within each rear

yard and immediately adjacent to the street right-of-way, have a planted buffer easement of at least ten (10) feet in width, across which there shall be no vehicular access. (See Section 609 A., Buffer Planting).

6. All remnants of land (areas remaining after subdivision) shall conform to the lot area and configuration requirements.
 7. Following subdivision, conveyances shall only be of land to the edge of the right-of-way of proposed streets unless the Developer wishes to deed to some other point in the right-of-way, in which case the Deed shall in all events contain a specific reservation to the Township of the land to be dedicated. In the event of such a reservation, the phraseology and form thereof shall be approved in advance by the Township Solicitor.
 8. All lots shall front on a public or approved private street and maintain the required minimum lot width at the building setback line. All lots, with the exception of flag lots, shall maintain a minimum of two-thirds (2/3) for the entire depth of the lot the required minimum lot width.
- E. Lot Size and/or Intensity. Lot areas shall be provided in accordance with the regulations set forth in the zoning ordinance of Clay Township which regulations are incorporated herein.
- F. Flag Lots. Flag lots shall not be created when lots can be designed to provide full frontage along a street. The Board at its sole discretion may approve the plotting of a limited number of flag lots when:
1. The flag lot is being created to serve one home site in the back of an existing tract of land where there is no potential of direct street access to the proposed lot.
 2. The flag lot is the result of the division of agricultural land to create an additional building site on the least suitable portion of the property for continued agricultural use.
 3. No more than two (2) contiguous flag lots shall be permitted.
 4. The "flagpole" or access portion of the flag lot shall maintain a minimum width of twenty-five (25) feet and shall not change direction more than once. The area of the flagpole shall not be included with the area of the "flag" or the body of the lot in satisfying Township zoning standards for minimum lot size.
 5. The Board may attach any reasonable conditions to the creation of flag lots as it finds necessary or desirable to provide for the orderly development of land and street systems.

6. Flag lots shall not be permitted to be accessed from the bulb portion of a cul-de-sac.

SECTION 605 BUILDING SETBACK LINES AND BUILDING SEPARATIONS

All building setback lines and building separations shall be provided in accordance with the regulations set forth in the Zoning Ordinance of Clay Township which regulations are incorporated herein by reference thereto.

- A. A building setback line shall be provided along each street and private street. The area in front of the building setback line shall be preserved from structural development.
- B. The distance to the building setback shall conform to the Zoning Ordinance. Setback lines on private streets shall be the required setback as per the Zoning Ordinance plus one-half of the proposed cartway width.
- C. In the case of corner lots, the setback from each adjacent street shall apply.
- D. All building separations and height requirements shall conform to the Zoning Ordinance.
- E. On any lot abutting a railroad or a power line, no dwelling shall be placed within seventy-five (75) feet of any portion of the railroad right-of-way or power line.

SECTION 606 EASEMENTS

Easements for sanitary sewer facilities, storm water drainage facilities, public utilities, or pedestrian access shall meet the following standards:

- A. To the fullest extent possible, easements shall be adjacent to property lines.
- B. Nothing shall be placed, planted, set, or put within the area of an easement that would adversely affect the function of the easement or conflict with the easement agreement. This requirement shall be noted on the Final Plan and shall be included in all deeds for lots which contain an easement.
- C. Pedestrian easements shall have a minimum width of six (6) feet.
- D. Utility easements shall have a minimum width of twenty (20) feet, and all utility companies are encouraged to use common easements.
- E. The applicant shall reserve easements where storm water or surface water drainage facilities are existing or proposed, whether located within or beyond the

boundaries of the property. Easements shall have a minimum width of twenty (20) feet and shall be adequately designed to provide area of (a) the collection and discharge of water, (b) the maintenance, repair, and reconstruction of the drainage facilities, and (c) the passage of machinery for such work. The easements shall clearly identify who has the right-of-access and responsibility of maintenance.

Any Storm Water Management Facilities Easement Restrictions required by the Stormwater Management Code shall be shown on the plan.

- F. Where any petroleum or petroleum product, electric, or gas transmission line traverses a subdivision or land development, the applicant shall confer with the applicable transmission or distribution company to determine the minimum distance which shall be required between each structure and the centerline of such petroleum product transmission line. Additionally, the Township Supervisors will require, with Final Plan Application, a letter from the owner of the transmission line stating any conditions on the use of the tract and the right-of-way width, or copy of the recorded agreement which shall contain the above date.
- G. Where structures prohibit access for maintenance vehicles to rear yards, these shall be a common maintenance easement of twenty (20) feet of the lot across adjoining property lots to a public road.
- H. Additionally, any land, easement or right-of-way offered for dedication or any restriction to be placed upon the record shall be accompanied by:
 - 1. A title insurance policy issued by a title insurance company licensed to do business in the Commonwealth of Pennsylvania, with a minimum value equal to the value of such improvements or land or thirty thousand dollars (\$30,000.00), whichever is the greater, insuring that such improvements, restrictions, deed, lands, or declarations are free and clear of all liens and encumbrances, and shall, when recorded, constitute a valid and enforceable priority in accordance with their terms; or
 - 2. The opinion of legal counsel duly licensed in the Commonwealth of Pennsylvania, that such improvements, restrictions, deeds, declaration, etc. are free and clear of all liens and encumbrances and shall, when recorded, constitute the valid and enforceable priority in accordance with their terms.
 - 3. In the case of documents to be recorded effecting currently existing landowners or associations, the opinion of legal counsel duly licensed in the Commonwealth of Pennsylvania that such documents have been properly adopted and are enforceable in accordance with those terms.