A. GENERAL. Proposed street improvements within the County shall conform to the pattern established in the Major Street Plan as adopted by Clay County.

Street improvements shall be designed to conform to applicable codes, regulations, ordinances, and the provisions set forth in these criteria as established by the Clay County Highway Department/PWD. Plans for said improvements shall be submitted to the County Engineer for approval and shall include all information as may be required or described hereinafter.

B. FUNCTIONAL CLASSIFICATION OF STREETS. The classification of streets shall be generally defined as follows:

1. Local Streets. A street designed to provide access to abutting property from collector and arterial streets.

2. Collector/Commercial Streets. Streets, which, in addition to serving abutting properties, intercept local streets, connect with community facilities and carry neighborhood traffic to the arterial street systems. Commercial streets serve areas predominately zoned for commercial or industrial uses.

3. Arterial Streets. A street or road of considerable continuity which serves or is intended to serve as a principal trafficway between separated areas or districts and which is the main means of access to the collector street system, highways or expressways.

Typical cross-sections of these classifications are shown on Design Aids No. 1 and No. 2.

C. STREET DESIGN STANDARDS.

| | Major Arterial | Minor Arterial | *Major Collector | Local Rural/Low | Local Urban (Res) | Local Comm/Ind |
|---|---|---|---|---|---|---|
| Minimum Right-of-Way Width (Ft) | 120 | 100 | 60 | 60 | 50 | 70 |
| Pavement Width | 44+ | 32+ | 32+ | 24 | 24 | 32 |
| Degree of Curvature | 12.5 | 12.5 | 23 | 28 | 28 | 23 |
| Curb Radii | 30 | 30 | 25 | 25 | 25 | 30 |
| Number of Lanes | 2-4 | 2-4 | 2-3 | 2-3 | 2 | 2-3 |
| Pavement Section | (2) | (2) | (3) | (3) | (4) | (3) |
| | | | | | | |

| | Major Arterial | Minor Arterial | *Major Collector | Local Rural/Low | Local Urban (Res) | Local Comm/Ind |
|---|---|---|---|---|---|---|
| Minimum Pavement Depth (Asphalatic Concrete) inches | 12 | 12 | 10 | 8 | 8 | 10 |
| Design Volume (VPD) Range | 24,000 to 36,000 | 12,000 to 24,000 | 1,500 to 12,000 | 1,500 and under | 1,500 and under | 1,500 and under |
| **Design Speed (MPH) | 50 | 35 | 30-35 | 25-30 | 25 | 25-35 |
| Maximum Grade | 6% | 6% | 6% | 6% | 8% | 6% |
| Minimum Grade | .5% | .5% | .5% | .5% | .5% | .5% |
| Curb Return Radius | 50' | 50' | 30' | 25' | 25' | 25' |
| Minimum Radii Horizontal Curve | 510' | 510' | 380' | 200' | 200' | 200' |
| Minimum K Crest Vertical Curve | 110-150 | 60-80 | 40-50 | 30 | 30 | 30 |
| Minimum K Sag Vertical Curve | 90-110 | 60-70 | 50 | 30 | 30 | 30 |
| Minimum Private Curb Cut Spacing (feet) | 350 | 1 per property | 1 per property | 1 per property | 1 per property | 1 per property |
| Minimum Distance from Intersection R.O.W. to curb cut (feet) | 250 | 200 | 150 | 25 | 25 | 25 |
| ***Sidewalk Width (feet) | 5 | 5 | 4 | 4 | 4 | 5 |
| Parking Permitted | No | No | No | No | No | NO |
| Storm Sewers | Yes | Yes | Yes | Yes | Yes | Yes |
| Curb & Gutter | CG-1 | CG-1 | CG-1 OR CG-2 | CG-2 | CG-2 | CG-1 |

* Also applicable to commercial streets.

** Design Speed criteria for horizontal and vertical alignment should meet the requirements of the current edition of "A Policy on Geometric design of Highways and Streets, AASHTO".

*** Both sides of roadway.

D. OFF-CENTER STREET INTERSECTIONS. Off-center street intersections shall be separated by a minimum centerline to centerline distance of one hundred and fifty (150) feet.

E. INTERSECTION VERTICAL ALIGNMENT. In all cases where a higher functional street intersects with a lower functional street, normal street crown shall be maintained on the higher functional street. Where streets of equal function intersect, street grades shall coincide in the center of the intersection with reduced rideability for both streets, or a warping of the cross slope for both streets. (Design Aid No. 5)

F. MINIMUM ANGLE OF INTERSECTION. It is desirable for all intersections to meet at approximately a ninety (90) degree angle. Skewed intersections should be avoided, and in no case should the angle be less than sixty (60) degrees.

G. MAXIMUM GRADIENT. The maximum gradient for streets as noted in Section C may be exceeded only upon written approval of the County Engineer. Such approval will only be granted in unusual cases where grades within the acceptable limits cannot be obtained.

H. GRADING GRADIENTS. The finished grade within the limits of the right-of-way shall slope from one-quarter (1/4) inch vertical to one (1) foot horizontal minimum, to one-half (½) inch vertical to one (1) foot horizontal maximum measured above the back of the curb. The grading gradients may be varied only upon written approval of the County Engineer.

I. TANGENT LENGTH. The minimum tangent length between reverse curves shall be fifty (50) feet for local streets and one hundred (100) feet for collector/commercial and arterial streets, except that no tangent will be required for radii longer than five hundred (500) feet.

J. CONNECTIONS TO EXISTING PAVEMENTS. Where a new street is to connect to an existing street, all deteriorated or cracked asphalt within five (5) feet of the connection point shall be removed to a point where sound material is found. If full-depth pavement removal is required the subgrade will be recompacted to 95 percent of standard density.

K. STORM DRAINAGE. All storm drainage works constructed in connection with street improvements shall be designed in accordance with the Clay County Highway Department/PWD Design Criteria for Storm Sewers and Appurtenances.

L. CUL-DE-SACS. At locations where streets are to be terminated and a vehicular connection between adjacent streets is not required a cul-de-sac may be permitted. Such cul-de-sac shall be constructed with a minimum radius of fifty (50) feet and 100'in diameter to the back of the curb.

M. TEMPORARY TURN-AROUNDS. At locations where streets are to be temporarily terminated which will be extended at a later date, and said street extends beyond the intersection of an adjacent street more than one (1) lot, a temporary cul-de-sac shall be constructed with a minimum radius of fifty (50) feet. The temporary cul-de-sac shall be constructed of asphaltic concrete with a minimum depth of six (6) inches. Curb and gutter will not be required. The cul-de-sac shall be constructed within the limits of a permanent construction easement.

N. MONUMENT BOXES. Monument boxes conforming to the Standard Drawings shall be installed at all quarter section corners and any other monuments involved in the street construction.

O. OTHER DESIGN CRITERIA. All other street design elements not contained within this criteria shall be in accordance with the most current edition of "A Policy on Geometric Design of Highways and Streets" authored by the American Association of State Highway and Transportation Officials (AASHTO) or other applicable AASHTO design guides.

P. DRIVEWAY ELEVATIONS. Driveways shall attain top of curb elevation within the right-of-way. Driveway grades within right-of-way shall be 8 percent maximum until curb height is reached. Break over grades for crest drives shall be 8 percent maximum and sag drives shall be 12 percent maximum. Driveway elevation shall not be more than six (6) inches above or below the normal shoulder elevation at the right-of-way line, to allow for a smooth sidewalk profile.

Q. SIGNAGE. Street name and regulatory traffic signs conforming to the Standard Drawings shall be furnished and installed at the appropriate locations in connection with the street improvement. All regulatory signage shall be in conformance with MUTCD requirements and shall be approved by the County Engineer.