# JEFFERSON COUNTY SUBDIVISION REGULATIONS

**APRIL 12, 2004** 

# JEFFERSON COUNTY SUBDIVISION REGULATIONS

# Prepared by the

# JEFFERSON COUNTY REGIONAL PLANNING COMMISSION

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# Assisted by the

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#### ARTICLE I

#### PURPOSE, AUTHORITY, AND JURISDICTION

#### A. <u>Purpose</u>

Land subdivision is the first step in the process of community development. Once land has been cut up into streets, lots and blocks, and publicly recorded, the correction of defects is costly and difficult. Subdivided land sooner or later becomes a public responsibility in that roads and streets must be maintained and various public services customary to urban areas must be provided. The welfare of the entire community is thereby affected in many important respects. Therefore, it is the interest of the public, the developer, and the future property owners that subdivisions be conceived, designed, and developed in accordance with sound rules and proper minimum standards.

## B. Authority

These subdivision regulations are adopted under authority granted by Sections 13-3-401 through 13-3-411 of the <u>Tennessee Code Annotated</u>. The planning commission has fulfilled the requirements set forth in this act as prerequisite to the adoption of such regulations. A certified copy of the Major Road Plan for the Jefferson County Planning Region is on file in the office of the Register of Deeds in Jefferson County, Tennessee.

#### C. Jurisdiction

These regulations shall govern all subdivision of land within the planning region of Jefferson County, Tennessee now or hereafter established, and within these regulations, the term "subdivision" means the division of a tract or parcel of land into two or more lots, sites or other divisions, requiring new street or utility construction, for the purpose whether immediate or future, of sale or building development, and includes resubdivision and, when appropriate to the context, relates to the process of subdividing or to the land or area subdivided, provided, however, that "subdivision" does not include a division of any tract or parcel of land into two or more tracts or parcels when such parts or parcels are five (5) acres or larger in size and do not require street or utility construction. Any owner of land within this area wishing to subdivide land shall submit to the planning commission a plat of the subdivision according to the procedures outlined in Article II. The plat shall conform to the minimum requirements set forth in Article III. All improvements shall be installed as required by Article IV of these standards.

## ARTICLE II

## PROCEDURE FOR PLAT APPROVAL

A. General

1. The procedure for review and approval of a subdivision plat consists of two (2) separate steps. The initial step is the preparation and submission to the planning commission of a preliminary plat of the proposed subdivision. The second step is the preparation and submission to the regional planning commission of a final plat together with required certificates. This final plat becomes the instrument to be recorded in the office of the Register of Deeds in Jefferson County when approved by the planning commission and duly signed by the commission's secretary.

The subdivider shall consult early and informally with the planning commission and its technical staff for advice and assistance before the preparation of the preliminary plat and its formal application for approval. This will enable the subdivider to become thoroughly familiar with these regulations, the Major Road Plan, and other official plans or public improvements which might affect the area. Such informal review should prevent unnecessary and costly revisions.

- 2. Any owner of land lying within the area of jurisdiction of the planning commission who wishes to divide such land into two (2) or more lots, sites, or divisions, for the purpose, whether immediate or future, of sale or building development, and includes resubdivision and, when appropriate to the context, relates to the process of subdividing or to the land or area subdivided, shall submit a plat of such proposed subdivision to the regional planning commission for approval and shall obtain such approval prior to the filing of the subdivision plat for record. Any such plat of subdivision shall conform to the minimum standards of design for the subdivision of land as set forth in Article III of these regulations and shall be presented in the manner specified in the following sections of this Article. No plat of a subdivision of land within the area of planning jurisdiction shall be filed or recorded by the Register of Deeds without the approval of the regional planning commission as specified herein.
- 3. In order to secure review and approval by the planning commission of a proposed subdivision, the prospective subdivider shall, prior to the making of any street improvements or installations of utilities, submit to the planning commission a preliminary sketch plat as provided in Section B of this Article. On approval of said preliminary sketch plat, the subdivder may proceed with the preparation of the final plat and other documents required in Section C of this Article and the improvements set forth in Article IV.

## B. Preliminary Sketch Plat

- 1. At least ten (10) working days prior to the meeting at which it is to be considered, the subdivider shall submit to the planning commission six (6) copies of a preliminary plat of the proposed subdivision drawn to a scale of not less than one (1) inch equals one hundred (100) feet and a signed and completed checklist (Appendix I). A preliminary plat shall not be acceptable for submission unless it meets all the required standards of design and unless it contains all the required information or a written request for a variance from each specific deviation from the requirements with reasons therefor.
- 2. The preliminary sketch plat which shall meet the minimum standards of design as set forth in Article III and the general requirements for the construction of public improvements as set forth in Article IV shall give the following information insofar as possible.

- a. The proposed subdivision's name and location, the name(s) and address(es) of the owner or owners, and the name of the designer of the plat who shall be a surveyor licensed for the State of Tennessee.
- b. Date, approximate north point, and graphic scale.
- c. The locations and dimensions of existing and platted property lines, existing streets, buildings, water courses, railroads, sewers, bridges, driveways, culverts, drain pipes, water mains, and any public utility easements lines, or detention basins.
- d. The present zoning classification of the land to be subdivided and adjoining land, and the names of adjoining property owners or subdivisions.
- e. Plans of proposed utility layouts (sewers, water, gas, fire hydrants, and electricity) showing feasible connections to the existing or any proposed utility systems. When such connections are not practicable, any proposed individual water supply and/or sewage disposal system must be approved by the appropriate health authorities.
- f. Proposed street names and the locations and dimensions of proposed streets, alleys, easements, parks, and other open spaces, reservations, lot lines, and drainage facilities.
- g. Contour lines at vertical intervals of not more than five (5) feet except when specifically not required by the planning commission. Such request must be made prior to the submission of a preliminary sketch plat. Where roads and/or utilities are to be provided, contour lines shall be engineering grade (field survey or aerial photography) at two (2) foot intervals.
- h. Road profiles shall be provided showing natural and finished grades of all proposed streets. The profiles shall be at a horizontal scale of 1" = 100'and a vertical scale of 1" = 10'.
- i. Proposed storm water facilities shall be designed in accordance with Article IV, Section D and shall be shown on the preliminary plat.
- j. The acreage of the land to be subdivided.
- k. Location sketch map showing relationship of subdivision site to area.
- l. If any portion of the land being subdivided is subject to flood as defined in Article III, Section F, the area subject to flood shall be shown.
- 3. A subdivider may omit the submission of a preliminary plat, submitting only a final plat if all the following conditions are met:
  - a. The proposed subdivision does not contain more than four (4) lots.
  - b. All public improvements as set forth in Article IV are already installed or because of the nature of the development deemed not necessary by the regional planning commission. Any construction, installation, or improvement of any public improvements shall require submission of a preliminary plat as prescribed by Section B of Article II.
  - c. The subdivider has consulted informally with the planning commission and/or planning staff for advice and assistance before preparation of a final plat and its formal application for approval.

- 4. Within sixty (60) days after submission of a preliminary sketch plat, the planning commission will review it and indicate its approval, disapproval, or approval subject to modifications. If a plat is disapproved, reasons for such disapproval will be stated in writing. If approved subject to modifications, the nature of the required modifications will be indicated.
- 5. One (1) copy of the preliminary sketch plat shall be retained in the planning commission files, one (1) copy shall be retained by the planning commission staff, one (1) copy shall be returned to the subdivider at the time of approval or disapproval with any notations as to required changes, if any.
- 6. The approval of the preliminary plat by the regional planning commission will not constitute acceptance of the final plat and will not be indicated on the preliminary sketch plat.
- 7. The approval of the preliminary plat shall lapse unless a final plat based thereon is submitted within twelve (12) months from the date of such approval unless an extension of time is applied for and granted by the regional planning commission.

# C. Final Plat

- 1. The final plat shall conform substantially to the preliminary sketch plat as approved, and, if desired by the subdivider, it may constitute only that portion of the approved preliminary sketch plat that is proposed to be recorded and developed at the time, provided however, that such portion conforms to all requirements of these regulations. A final plat shall not be acceptable for submission unless it contains all of the required information or a written request for a variance from each specific deviation from the requirements.
- 2. To allow sufficient time for review and processing by the regional planning commission and staff, the subdivider shall submit six (6) copies of the final plat, a signed and completed checklist (Appendix II), and any other plans required by the commission, at least ten (10) working days prior to the meeting at which the plat is to be considered. The plat shall be drawn to a scale of one (1) inch equals one hundred (100) feet on sheets no larger than 24" x 30" in size. When more than one (1) sheet is required, an index sheet of the same size shall be filed showing the entire subdivision with the streets lettered in alphabetical order as a key. When the plat has been approved by the regional planning commission, one (1) copy shall be returned to the subdivider with the approval of the regional planning commission certified thereon for filing with the Register of Deeds office as the official plat of record. One (1) copy shall be retained in the records of the regional planning commission, one (1) copy shall be retained by the planning staff, and one (1) copy shall be provided any utilities department or utility district, as applicable.
- 3. The planning commission shall approve or disapprove the final plat within sixty (60) days after its submission. If the plat is disapproved, the grounds for disapproval shall be stated in the records of the regional planning commission.
- 4. Approval of the final plat by the regional planning commission shall not constitute the acceptance by the public of the dedication of any street or other public way or ground.
- 5. The final plat shall show:
  - a. Date, title, name, location of subdivision, graphic scale, and north point.
  - b. All street and alley rights-of-way, building setback lines, lots numbered in numerical order, reservations for easements, and any areas to be dedicated for public use.
  - c. Sufficient data to determine and readily reproduce on the ground the locations, bearings, and length of every right-of-way, lot line, easement, boundary line, block line and

building line, whether curved or straight, and including true north point. This shall include the radius, central angle, and tangent distance for the centerline of curved streets and curved property lines that are not the boundary of curved streets.

- d. All dimensions to one hundredth (100th) of a foot and angles to the nearest minute.
- e. Square footage or acreage of each lot including property above and below the 1002 contour for property along Douglas Lake.
- f. Locations and descriptions of all monuments.
- g. The names and locations of adjoining subdivisions and streets and the locations and ownership of adjoining unsubdivided properties.
- h. Location sketch map showing site in relation to area.
- i. If any portion of the land being subdivided is subject to flood, as defined in Article III, Section F, the limit of such flood shall be shown.
- 6. The following certificates shall be presented with the final plat, as appropriate:
  - a. Certificate of Ownership and Dedication stating that applicant is the land owner and dedicates streets, rights-of-way, and any sites for public use.
  - b. Certificate of Accuracy by the surveyor stating to the accuracy of the survey and plat and placement of monuments.
  - c. Certification of Approval of Water Systems stating that the water supply system meets requirements of the Tennessee Department of Environment and Conservation or the local health department.
  - d. Certification of Approval of Subsurface Sewage Disposal that all lots are approved by the Tennessee Department of Environment and Conservation or the local health department or Certification of Approval of Sewerage System that the sewage disposal system is approved by the Tennessee Department of Environment and Conservation or the local health department.
  - e. Certification of Storm Water Facilities stating that post-development storm water release is equal to, or less than, pre-development storm water release.
  - f.. Certification of Approval of Streets stating that all streets and appurtenances have been installed in accordance with established standards.
  - g. Certification of Approval of Street Names that all street names in proposed subdivisions do not conflict with other street names in the county.
  - h. Certification of Approval of Electric Lines stating that all electric lines have been installed in an acceptable manner.
  - i. Certificate of Approval for Recording by planning commission.

# SUBDIVISION CERTIFICATION FORMS

# 1. CERTIFICATION OF OWNERSHIP AND DEDICATION

	Owner	Date
	Owner	Date
Jefferso	•	true and correct survey to the accuracy required by that monuments have been placed as shown hereon, to the
		_
	Surveyor	Date
3.	Surveyor  CERTIFICATION OF APPROVAL OF WAT	
Departm assurance	CERTIFICATION OF APPROVAL OF WAT:  y that the water system installed, or proposed for inment of Environment and Conservation, and is her	ER SYSTEMS  Installation, fully meets the requirements of the Tennesse eby approved as shown or that a letter of credit or oth d to the Jefferson County Regional Planning Commission

# 4. CERTIFICATION OF APPROVAL OF SEWERAGE SYSTEM

Tennes	ssee Department of Environment and Conservation, a	osed for installation, fully meets the requirements of the and is hereby approved as or that a letter of credit or other to the Jefferson County Regional Planning Commission of default.
	Utility District Representative	Date
5.	CERTIFICATION OF APPROVAL OF SUBS	URFACE SEWAGE DISPOSAL
	fy that all lots in this subdivision are approved for containing a minimum of two (2) bedrooms.	subsurface sewage disposal systems (ssds) suitable for
	Jefferson County Health Department	Date
storm amoun	water runoff will not exceed pre-development runoff	nd constructed so that the amount of post-development amounts or that a letter of credit or other assurance in the son County Regional Planning Commission to ensure
	Registered Engineer	Date
7.	CERTIFICATION OF APPROVAL OF STRE	ETS
establi	shed by the Jefferson County Regional Planning Co	r proposed for installation, fully meet the specifications mmission or that a letter of credit or other assurance has pletion of all required improvements in case of default.
	Jefferson County Road Superintendent	Date

8.	CERTIFICATION OF APPROVAL OF STREET NAMES		
I certi	y that all street names are in compliance with E-911 and do not conflict with other street names in the county.		
	E911 Director	Date	
9.	CERTIFICATION OF APPROVAL OF ELECT	TRIC LINES	
compa	fy that electric lines have been installed in an acceptal any, or a letter of credit or other assurance has been procession in the amount of \$ to assure comp		
	Utility System Manager	Date	
10.	CERTIFICATE OF APPROVAL FOR RECOI	RDING	
except have b	tion of such variances, if any, which are noted in the r	odivision requirements for the planning region, with the minutes of the planning commission. All improvements to assure completion. This plat is approved for recording	
	Secretary, JCRPC	Date	

#### ARTICLE III

#### GENERAL REQUIREMENTS AND MINIMUM STANDARDS OF DESIGN

#### A. Streets

#### 1. Conformity to the Major Road Plan

The location and width of all streets and roads shall conform to the official major road plan adopted by the Regional Planning Commission.

#### 2. Relation to Adjoining Street System

The proposed street system shall extend existing streets or projects. They shall be extended at a width no less than the required minimum width as set forth in this Article or the width of the existing street or road whichever is greater.

#### 3. Access Streets to Subdivision Boundaries

Sufficient access streets or rights-of-way to adjoining properties shall, in the discretion of the planning commission, be provided in subdivisions to permit harmonious development to the area.

#### 4. Street Elevation

No street shall be approved unless it is one (1) foot above the base flood elevation as defined in Section F of this Article. The regional planning commission shall require profiles and elevations of streets for areas subject to flood in accordance with these and any other applicable county regulations. Fill may be used for streets provided such fill does not increase flood heights. Drainage openings shall be designed as to not restrict the flow of water and unduly increase flood heights. Where such fill and drainage openings are proposed, the planning commission shall consult with the county road engineer as to the adequacy of the proposed design. In addition, the street pattern shall be designed so that in time of flood each lot shall be readily accessible to emergency vehicles.

# 5. <u>Street Rights-of-Way Widths</u>

The minimum width of rights-of-way, measured from lot line to lot line, shall be as shown on the major road plan, or if not shown on such plan, shall be not less than as follows:

## a. Arterial Streets or Highways

80 feet or as required.

Such streets are used primarily for fast or heavy traffic and are located on the major road plan for the planning region.

b. Major Collector Streets

60 feet

## c. Minor Collector Streets

50 feet

Collector streets are those which carry traffic from minor streets to the major system of arterial streets and highways and include the principal entrance streets of a residential development and streets for major circulation within such a development.

#### d. Minor Residential Streets

50 feet

Minor streets are those which are used primarily for access to the abutting residential properties and designed to discourage their use by through traffic.

e. Cul-de-sac Streets

50 feet

Cul-de-sacs are permanent dead-end streets designed so that they cannot be extended in the future.

f. Dead-end Streets

Not allowed

Dead-end streets are similar to cul-de-sacs except that they provide no turnaround circle at their closed end and are not permitted as streets in any proposed subdivision. Stub streets planned for future continuation are not considered to be dead-end streets.

g. Marginal Access Streets

50 feet

Marginal access streets are minor streets that are parallel and adjacent to arterial streets and highways and which provide access to abutting properties and protection from through traffic.

h. Alleys 20 feet

Alleys are minor public ways used primarily for service access to the back or side of properties otherwise abutting on a street.

In cases where topography or other physical conditions make a street of the required minimum width impracticable, the regional planning commission may modify the above requirements. Through proposed neighborhood or local business areas, the street rights-of-way width shall be increased ten (10) feet on each side to provide for movement of vehicles into and out of necessary off-street parking areas without interference to traffic. The planning commission may reduce the rights-of-way width for these streets to forty (40) feet provided the following conditions exist:

i. Marginal access & loop streets

not to exceed 1,200' or 24 unit/lot

# 6. Additional Width on Existing Streets

Subdivisions that adjoin existing streets shall dedicate additional right-of-way to meet the above minimum street width requirements.

- a. The entire right-of-way shall be provided where any part of the subdivision is on both sides of the existing street.
- b. When a subdivision is located on only one side of an existing street, one-half (1/2) of the required right-of-way, measured from the centerline of the existing roadway, shall be provided.

#### 7. Restriction of Access

Where a subdivision abuts or contains an existing or proposed major street, the planning commission may require marginal access streets, reverse frontage with screen planting contained in a non-access reservation along the rear property line, or such other treatment as may be needed for adequate protection of residential properties to afford separation of through and local traffic.

# 8. <u>Street Grades</u>

#### a. Arterial Maximum Grade

The maximum grade on arterial streets shall not exceed seven (7) percent.

#### b. Major Collector Maximum Grade

The maximum grade on major collector streets shall not exceed eight (8) percent.

#### Minor Collectors and Local Streets

The maximum grade on local and minor collector streets shall not exceed twelve (12) percent. However, when special topographic or other conditions justify, the planning commission may increase the maximum allowable grade on local streets to fifteen (15) percent.

# 9. Horizontal Curves

Where a deflection angle of more than ten (10) degrees in the alignment of a street occurs, a curve of reasonably long radius shall be introduced. For arterial and major collector streets, the centerline radius of curvature shall be not less than three hundred (300) feet; on other streets, not less than one hundred (100) feet.

#### 10. Vertical Curves

Every change in grade shall be connected by vertical curve constructed so as to afford a minimum sight distance of two hundred (200) feet, said distance being measured from the driver's eyes, which are assumed to be four and one-half (4-1/2) feet above the pavement surface, to an object four (4) inches high on the pavement. Profiles of all roads showing natural and finished grades drawn to a scale of not less than one (1) inch equals one hundred (100) feet horizontal, and one (1) inch equals ten (10) feet vertical, shall be required.

# 11. Tangents

A tangent of at least one hundred (100) feet in length shall be introduced between reverse curves on arterial and major and minor collector streets.

# 12. <u>Intersections</u>

Street intersections shall be as nearly at right angles as is possible, and no intersection shall be at an angle of less than sixty (60) degrees.

Property line radii at street intersections shall not be less than twenty (20) feet, and where the angle of street intersection is less than seventy-five (75) degrees, a greater curb radius may be required. Wherever necessary to permit the construction of a curb having a desirable radius without curtailing the sidewalk at a street corner to less than normal width, the property line at such street corner shall be rounded or otherwise set back sufficiently to permit such construction.

# 13. Street Jogs

Street jogs with center line offsets of less than one hundred twenty-five (125) feet shall not be allowed.

## 14. <u>Cul-de-sac Streets</u>

a. Minor terminal streets or courts designed to have one end permanently closed shall be no more than one thousand (1,000) feet long unless necessitated by topography, as measured along the centerline from the entrance street right-of-way to the center of the turnaround. Such streets shall be provided at the closed end with a turnaround having an outside roadway diameter of at least eighty (80) feet and a street right-of-way diameter of at least one hundred (100) feet. However, the planning commission may approve an alternate design such as a T or Y turnaround where the dead end street is less than five hundred

(500) feet in length and where such a turnaround would be warranted by topography (design standards are contained in Appendix III).

b. Where, in the opinion of the planning commission, it is desirable to provide for street access to adjoining property, proposed streets shall be extended by dedication to the boundary of such property. Such dead-end streets shall be provided with a temporary turnaround having a roadway diameter of at least eighty (80) feet.

#### 15. Permanent Easements and Reserve Strips

Except as allowed below, every lot in subdivided property shall have frontage on a public street. There shall be no reserve strips controlling access to streets, except where the control of such strips is definitely placed with the county under conditions approved by the planning commission.

Permanent easements may be permitted. All permanent easements involving or serving more than two (2) lots shall adjoin a public street for fifty (50) feet and be at least fifty (50) feet in width throughout. They must also be designed and constructed to the standards established in Article IV, Development Prerequisite to Final Approval as required for streets being dedicated for public acceptance. All improvements shall conform to standards for minor residential streets as specified for the planning region. Building permits shall be issued for properties fronting on permanent easements provided said easement is constructed to standards specified above, and further provided the easement is shown on a plat approved by the regional planning commission.

Permanent easements involving or serving no more than two (2) lots shall be allowed provided they adjoin a public street for twenty-five (25) feet and are at least twenty-five (25) feet in width throughout their length.

# 16. Street Names

Proposed streets which are obviously in alignment with others already existing and named shall bear the names of existing streets. In no case shall the name for proposed streets duplicate existing street names, irrespective of the use of suffix such as street, avenue, boulevard, drive, way, place, or court. The regional planning commission can assist the subdivider in avoiding duplication. Each street name shall be approved by the Jefferson County E-911 Coordinator and such approval shall be shown on the plat.

# 17. Alleys

Alleys shall be provided to the rear of all lots used for business purposes, and shall not be provided in residential blocks except where the subdivider produces evidence satisfactory to the planning commission of the need for alleys.

# B. Blocks

# 1. Length

Blocks shall not be less than four hundred (400) feet in length nor more than twelve hundred (1,200) feet in length, except as the planning commission considers necessary to secure efficient use of land or desired features of street pattern. In blocks over eight hundred (800) feet in length, the planning commission may require one (1) or more public crosswalks of not less than ten (10) feet in width to extend entirely across the block at locations deemed necessary.

# 2. Width

Blocks shall be wide enough to allow two (2) rows of lots, except where reverse frontage on major streets and roads is provided or where prevented by topographical conditions or size of the

property, in which case the regional planning commission will approve a single row of lots of minimum depth.

#### C. Lots

# 1. <u>Adequate Building Sites</u>

Each lot shall contain a building site not subject to flood as defined in Section F of this Article and outside the limits of any existing easement or building setback lines required in subsection 4 of this Section. Land within a floodway, as defined in Section F of this Article, shall not be platted for building purposes. Said land may be counted as part of the lot in computing lot sizes. Property below the 1002 contour on Douglas Lake shall not be included when calculating the total lot size.

# 2. <u>Arrangement</u>

Insofar as practical, side lot lines shall be at right angles to straight street lines or radial to curved street lines. Except for lots on an approved permanent easement, each lot must have fifty (50) feet of usable street frontage on a public street. All lots shall be at least fifty (50) feet in width between the front property line and the building setback line.

#### 3. Minimum size

The size, shape and orientation of lots shall be such as the planning commission deems appropriate for the type of development and use contemplated. Where public water and sanitary sewer systems are reasonably accessible, the subdivider shall connect with such sewer and provide a connection to each lot. Where a public sewer is not accessible, an alternate method of sewage disposal may be used, upon approval by the regional planning commission subject to the lot size requirements where water is not available.

- a. All lots created in any subdivision, other than those not intended for development, shall be suitable for dwellings with at least two (2) bedrooms and conform to the following lot size and lot width requirements and the requirements established in the zoning resolution:
  - i. Lots served by both public water and public sanitary sewer shall not be less than ten thousand (10,000) square feet in area and not less than seventy-five (75) feet in width at the building setback line.
  - ii. Lots served by public water but <u>not</u> served by a public sanitary sewer system shall not be less than twenty thousand (20,000) square feet in area and not less than one hundred (100) feet in width at the building setback line. The planning commission may require a larger lot size upon the recommendation of the Tennessee Department of Environment and Conservation or the local health department.
  - iii. Lots <u>not</u> served by a public water supply and <u>not</u> served by a public sanitary sewer system shall not be less than forty thousand (40,000) square feet in area and not less than one hundred fifty (150) feet wide at the building setback line.
- b. The minimum size of lots to be served by a private source of water supply shall be determined by the planning commission after investigations of soil conditions, proposed sewerage system and depth of ground water. The assistance of the Tennessee Department of Environment and Conservation, the local health department, or the Soil Conservation Service shall be sought in determining the appropriate size. Minimum frontage shall be not less than two hundred (200) feet at the setback line.

c. Size of properties reserved or laid out for commercial or industrial purposes shall be adequate to provide for the off-street service and parking facilities required by the type of use and development contemplated. Platting of individual lots should be avoided in favor of an overall design of the land to be used for such purposes.

# 4. <u>Building Setback Lines</u>

- a. The minimum depth of building setback lines from the street right-of-way line shall not be less than thirty (30) feet from new minor residential streets and minor collector streets, cul-de-sac streets, and marginal access streets; forty (40) feet for major collector streets and fifty (50) feet for arterial streets and highways unless a greater distance is deemed to be necessary by the regional planning commission for the protection of the contemplated development on the property.
- b. The developer is responsible for verifying the details of an existing easement with the party to whom the easement has been granted or transferred prior to developing the initial version of the subdivision. In the case of electric transmission lines where easement widths are not definitely established, there shall be a minimum building setback line from the center of the transmission line as follows:

Voltage of Line	Minimum Building Setback
46 KV	37-1/2 feet
69 KV	50 feet
161 KV and over	75 feet

# 5. Corner Lots

Corner lots shall have extra width sufficient to permit the additional side yard requirements of the building setback lines outlined above.

# D. Public Use and Service Areas

Due consideration shall be given to the allocation of areas suitably located and of adequate size for playgrounds and parks for local or neighborhood use as well as public service areas.

#### 1. Public Open Spaces

Where a school, neighborhood park, r recreation area, or public access to water frontage, shown on an official map or in a plan made and adopted by the planning commission, is located in whole or in part in the applicant's subdivision, the planning commission may require the dedication or reservation of such open space within the subdivision up to and including a total of ten (10) percent of the gross area or water frontage of the plat, for park, school, or recreation purposes.

# 2. Easements for Utilities

Except where alleys are permitted for the purpose, the planning commission may require easements not exceeding twelve (12) feet in width for poles, wires, conduits, storm and sanitary sewers, gas, water mains or other utility lines along rear lot lines or side lot lines if, in the opinion of the planning commission, such action is desirable or necessary. Easements of the same or greater width may be required along the lines of or across lots, where necessary for the extension of existing or planned utilities.

# 3. <u>Easements for Drainage</u>

Where a subdivision or lot is traversed by a watercourse, drainageway, channel, or stream, there shall be provided a storm water or drainage easement for the purpose of widening, deepening, relocating, improving, or protecting such drainage easement. Additionally, the planning commission may require easements along lot lines.

# 4. <u>Community Assets</u>

In all subdivisions due regard shall be shown for natural features, such as large trees, watercourses, historical spots, and similar community assets which, if preserved, will add attractiveness and value to the property.

# E. Suitability of the Land

Land that the regional planning commission has found to be unsuitable for subdivision due to flooding, bad drainage, steep slopes, rock formation, poor or dangerous street access, or other features likely to be harmful to the safety, health, and general welfare of the future residents, shall not be subdivided unless adequate methods approved by the planning commission are formulated by the developer for meeting the problems created by the subdivision of such land.

## F. Property Subject to Flooding

Land subject to flooding and land deemed to be topographically unsuitable shall not be platted for residential occupancy or for any other uses that may increase flood hazard, endanger health, life, or property, or aggravate erosion. Such land within the platted area shall be set aside for such uses as shall not be endangered by periodic or occasional inundation or shall not produce unsatisfactory living conditions.

All subdivision of property proposing construction of public utilities and facilities such as water supply or sanitary sewage systems, shall be designed to minimize or eliminate infiltration of flood waters into the system or discharges of the system into flood waters. Subdivisions shall be designed so that adequate drainage is provided in order to reduce exposure of flood hazards. Base flood elevation data shall be provided for subdivision proposals which are greater than the lesser of fifty (50) lots or five (5) acres.

Fill may not be used to raise lands in areas subject to flood unless the fill proposed does not restrict the flow of water and unduly increase flood heights.

The most recent requirements adopted by the local government pertaining to development in the floodplain, which comply with minimum requirements under the National Flood Insurance Program, shall be adhered to as part of the subdivision regulations.

# G. Large Tracts or Parcels

When land is subdivided into larger parcels than ordinary building lots, such parcels shall be arranged to allow for the opening of streets in the future and for logical further resubdivision.

#### H. Variances

Variances may be granted provided the following conditions are met:

- 1. Where the subdivider can show that strict adherence to these regulations would cause unnecessary hardship; and
- 2. Where the regional planning commission decides that there are topographical or other conditions peculiar to the site, and a departure from these regulations will not destroy their intent. Any variance thus authorized shall be stated in writing in the minutes of the planning commission with the reasoning on which the departure is justified set forth.

# I. <u>Group Housing Developments</u>

Group housing developments shall be designed and developed in accordance with these regulations and the zoning resolution. Although the developer will be allowed to deviate from the lot area requirements for the individual lots on which residential structures are located, the complex itself must meet the overall minimum lot density requirements. This may be accomplished through the provision of open spaces, opentype recreational areas, and consolidated parking areas.

# J. Zoning or Other Regulations

No final plat of land within the force and effect of an existing zoning resolution will be approved unless it conforms to such resolution.

Whenever there is a discrepancy between minimum standards or dimensions noted herein and those contained in zoning regulations, building code, or other official regulations, the highest and most stringent standards shall prevail.

#### ARTICLE IV

#### DEVELOPMENT PREREQUISITE TO FINAL APPROVAL

A perfectly prepared and recorded subdivision plat means little to a prospective lot buyer until the actual physical transformation of raw acreage into lots suitable for building purposes and human habitation can be seen. Improvements by the subdivider spare the community from a potential tax liability. The following tangible improvements are required before final plat approval in order to assure the physical reality of a subdivision which approval and recordation will legally establish.

#### A. Required Improvements

Every subdivision developer shall be required to grade and improve streets and alleys, and to install curbs, monuments, sewers, storm water inlets and water mains, in accordance with specifications established by the regional planning commission. The adopted requirements, whether in local regulations or in the following standards, shall govern.

#### **B.** Monuments or Corner Markers

1. All corners in all subdivisions shall be marked with iron rods not less than three-fourths (3/4) inch in diameter and twenty-four (24) inches long and driven so as to be flush with the finished grade. Exceptions may be allowed where corners are permanently underwater provided said corners are appropriately noted on the plat.

# C. Grading

All streets, roads, and alleys shall be graded by the subdividers so that pavements and sidewalks can be constructed to the required cross-section. Deviation from the above due to special topographical conditions will be allowed only with special approval of the planning commission. Where streets are constructed under or adjacent to existing electric transmission lines, the nearest edge of the pavement shall be a minimum of fifteen (15) feet from any transmission line structure and all grading for the street shall be done in a manner which will not disturb the structure or result in erosion endangering the structure. In the case of electric transmission lines, the clearance from the pavement to the nearest conductor shall meet the requirements of the National Electrical Safety Code.

- 1. Preparation: Before grading is started, the entire right-of-way area shall be cleared of all stumps, roots, brush, objectionable materials, and all trees not intended for preservation.
- 2. Cuts: In the case of cuts and fills, the entire right-of-way width to a cross section of twenty percent (20%) grade from the edge of pavement when underground electric distribution lines are to be installed. All tree stumps, boulders and other obstructions shall be removed to a depth of two (2) feet below the subgrade. Rock, when encountered, shall be scarified to a depth of twelve (12) inches below subgrade. All topsoil shall be removed a minimum of two (2) feet below the subgrade and back filled with suitable material. No grading shall be done when ground is frozen or muddy unless mud is removed and disposed of outside of streets.
- 3. Fill: All suitable material from roadway cuts may be used in the construction of fills, approaches, or at other places as needed. Excess materials including organic materials, soft clays, etc., shall be removed from the development site. The fill shall be spread in layers not to exceed twelve (12) inches loose and compacted by a sheep's foot roller with a minimum compaction of ninety-five percent (95%). The filling of utility trenches and other places not accessible to a roller shall be mechanically tamped, and where water is used to assist compaction the water content shall not exceed the optimum of moisture.

- 4. Inspections: During the construction of any subdivision roads in the area of planning jurisdiction, the developer and/or his contractor shall be required to keep the road superintendent advised as to the progress being made. Such roads shall meet or exceed the standards required by these subdivision regulations adopted by Jefferson County. In addition, the following inspections and/or approvals by the Jefferson County Road Engineer shall be required:
  - a. After clearing and stripping.
  - b. Approval of the drainage plan.
  - c. After grading and drainage are completed.
  - d. After the stone base is in place.
  - e. During and after application of all asphaltic materials.

The developer or his representative will be responsible for notifying the road superintendent for each inspection. When the plat is submitted to the planning commission for final approval, the road superintendent shall make a final inspection. His findings and recommendations as to approval of the roads shall be reported in writing to the planning commission. In lieu of completed road improvements with a request for final approval of the plat, the planning commission shall ask the advice of the road superintendent in regard to the amount of the bond, certified check, or other means of surety that shall be acceptable to ensure completion of the roads and associated facilities. The surety shall not be released by the planning commission until the recommendations of the road superintendent have been obtained as to the acceptability of the roads and associated facilities upon completion of construction.

# D. Storm Water Control

An adequate drainage system, including necessary open ditches, pipes, culverts, intersectional drains, drop inlets, bridges, etc., shall be provided for the proper drainage of all surface water. Cross drains shall be provided to accommodate all natural water flow, and shall be of sufficient length to permit full width roadway and the required slopes. Cross drains shall be built on straight line and grade and shall be laid on a firm base, but not on rock. Pipes shall be laid with the spigot end pointing in the direction of the flow and with the ends fitted and matched to provide tight joints and a smooth, uniform invert. They shall be placed at a sufficient depth below the roadbed to avoid dangerous pressure of impact, and in no case shall the top of the pipe be less than one (1) foot below the roadbed.

The following standards shall apply:

## 1. Definitions

**Ten-year frequency flood.** A flood with a ten percent (10%) chance of being equaled or exceeded in any given year.

**Detention Basin:** A permanent basin constructed to protect downstream facilities by providing temporary storage of peak discharges from surface water runoff on a developed site and releasing the stored water at controlled rates not to exceed pre-development discharges under specified storm frequencies.

**Pre-development Discharge.** The present or natural peak storm water discharge from a site generally before significant development occurs and within a specified storm duration and frequency.

**Post-development Discharge.** The present or natural peak storm water discharge from a fully developed site within a specified storm duration and frequency.

*Watercourse.* Any natural or artificial stream, river, creek, channel, ditch, canal, conduit, culvert, drain, waterway, gully, ravine, street, roadway, or wash in which water flows in a definite direction or course, either continuously or intermittently, and which has a definite channel, bed or banks, and shall include any area adjacent thereto subject to inundation by reason of overflow of surface water.

County Engineer. Shall refer to the appointed county engineer.

#### 2. Watercourse Protection.

Watercourses shall be maintained in order to carry storm water from adjacent properties or public rights-of-way. The filling of any watercourse is prohibited unless the property owner/developer can successfully demonstrate that an alternative approach will meet the intent of this section. The county engineer shall approve any alternative plan and the filling of any existing watercourse not within a designated floodplain.

# 3. <u>Drainage System Design Criteria</u>.

The following criteria shall be followed in the design and installation of storm water drainage systems:

- a. The installation of drainage pipe is required for all driveways that connect into a county road. This requirement, and specifications herein noted, is applicable on any roadway section which does not have curbing.
- b. Driveway side drains shall be a minimum of sixteen (16) gauge for corrugated metal pipe (CMP), or class III concrete for pipe diameters to eighteen (18) inches. For pipe twenty-four (24) inches in diameter or larger, the CMP shall be fourteen (14) gauge or class III concrete. Pipe shall extend beyond the edges of the driveway and shall terminate with a concrete flared headwall (see Appendices VII and VIII). No pipe shall be installed which is less than fifteen (15) inches in diameter. For single family driveway permits, the county engineer shall determine the need for or minimum size pipe for installation. The engineer shall also have the authority to approve an alternative headwall design which is suitable for the site.
- c. Catch basins shall be integrated into any new roadway construction where curbing will be installed. Catch basins shall be TDOT 12-32 (standard drawing D-CB-12-32) modified to accept the frame and grate as shown on standard drawing D-CBB-12A or other designs of comparable quality as approved by the county. Total casting weight shall be a minimum of 730 lbs. per catch basin. Castings shall be aligned using normal gutter elevations which shall be adjusted to allow for a two (2) foot sump at face of curb.
- d. Enclosed storm drains which collect and convey drainage on, across, and through public rights-of-way shall comply with standards for driveway side drains. Pipe shall extend beyond the right-of-way and shall terminate with a flared concrete headwall (see Appendices VII and VIII). Rip rap/quarry or field stone four (4) inch to eight (8) inch (shall be placed a minimum of six (6) feet beyond the headwall and laid over erosion control matting material equal to Erosion Control Fabric 955 by Synthetic Industries Inc.
- e. Standards for enclosed systems: The minimum design criteria used for calculating the size of enclosed drainage systems shall be based on a ten (10) year flood frequency, twenty-four (24) hour duration storm. For major system designs, the county engineer and development engineer shall determine other appropriate criteria which is consistent with the intent of this section

f. All hydrologic and hydraulic computations utilized in the design of storm water appurtenances and detention facilities must be prepared by a registered engineer proficient in the field of hydrology and hydraulics and licensed in the State of Tennessee. An acceptable method for calculating runoff and detention facilities is outlined in "Urban Hydrology For Watersheds", 2nd. Edition, U.S. Soil Conservation Service, Technical Release #55.

#### 4. Storm Water Detention

Storm water detention may be required for any single family residential subdivision consisting of five (5) acres or ten (10) lots and where streets are proposed. The planning commission may waive these requirements if the applicant can demonstrate that compliance is unnecessary.

Standards: The development will be required to use generally accepted standards and procedures for calculating the release of storm water from the site <u>before</u> and <u>after</u> development, and institute control measures on site so that downstream peak discharges at post-development are generally reduced to pre-development conditions. The design criteria for the sizing of detention basins and drain pipes is based on a twenty-four (24) hour storm of a ten (10) year frequency under the pre-development conditions of the site (4.8 inches).

#### 5. Storm Water Plan

Storm water drainage and detention plans shall be integrated into the preliminary subdivision plat.

#### 6. Erosion Control

Effective erosion control measures shall be required during construction to eliminate sedimentation on public rights-of-way or watercourses. The use of straw bales or silt fencing is typically the most prevalent, however other suitable methods will be permitted.

# E. Road Design Standards

The design and construction standards for new streets are detailed below and found in Appendix IV and subsequent appendices.

# 1. <u>Pavement Base</u>

After preparation of the subgrade (minimum compaction of ninety-five percent (95%), the roadbed shall be surfaced with material required by local standards; but of not lower classification than crushed rock, stone or gravel. The size of the crushed rock or stone shall be that generally known as "crusher run stone" from two and one-half inches down including dust sufficient to bond stone together. Spreading of the stone shall be done uniformly over the area to be covered by means of appropriate spreading devices and shall not be dumped in piles. After spreading, the stone shall be rolled until thoroughly compacted and bonded together. The base shall be twenty-four (24) feet wide to allow for two (2) foot wide shoulders on both sides of pavement surface. The compacted thickness of the stone roadway shall be as follows for the area zoned:

a. Residential 5.0"b. Commercial 8.0"c. Industrial 10.0"

#### 2. Prime Coat

After a thoroughly compacted base has been established, a prime coat shall be applied as specified in Appendix V of these regulations.

#### 3. Binder

A binder course consisting of asphaltic concrete (307-B) shall be required for all roadways as follows:

a.	Residential	2.0"
b.	Commercial	3.0"
c.	Industrial	3.0"

# 4. Wearing Surface

The wearing surface shall meet specifications as provided in Appendix VI and the following thickness:

a.	Residential	1.5"
b.	Commercial	2.0"
c.	Industrial	2.0"

#### 5. Minimum Pavement Widths and Cross Section

Minimum pavement widths between curbs shall be as follows:

a.	Minor Residential Streets	20 feet
b.	Marginal Access Streets (1,200 feet or less in length or serving not more than twenty-four lots)	20 feet
c.	Cul-de-sac (1,000 feet or less in length and serving not more than fifteen lots)	20 feet
d.	Collector Streets (major and minor)	28 feet
e.	Commercial & Industrial roads	26 & 28 ft, respectively

# 6. <u>Curbs and Gutters</u>

The subdivider may provide permanent six-inch (6') concrete curbs with twenty-four (24) inch integral concrete gutters; standard rolled curb and gutters; or other construction approved by the planning commission (see Appendix V11). The commission may exempt the placement of curbing on cul-de-sacs, marginal access streets, and loop streets depending on the length of said streets and topography of the area.

# F. Sidewalks

Sidewalks, if constructed, shall be located not less than one (1) foot from the property line to prevent interference of encroachment by fencing, walls, hedges, or other planting or structures placed on the property line at a later date. In single-family residential areas, concrete sidewalks shall be four (4) feet wide and four (4) inches thick. In multi-family or group housing developments, sidewalks shall be five (5) feet wide and four (4) inches thick. In commercial areas, sidewalks shall be ten (10) feet wide and four (4) inches thick.

# G. <u>Installation of Utilities and Driveways</u>

After grading is completed and approved and before any base is applied, all of the underground works-water mains, gas mains, etc.--and all service connections shall be installed completely and approved throughout the length of the road and across the flat section. All driveways for houses to be built by the developer shall be cut and drained.

# H. Water Supply System

The provisions of a public water supply is deemed by the planning commission to be essential to the public welfare in the case of all development contemplating the growth of homes in close proximity to each other. Accordingly the provisions of a public water supply system will be required in all subdivisions containing lots of less than five (5) acres and/or lots of less than two hundred (200) feet in width at the building setback line. An exception may be granted in the case where a single small parcel is separated from a larger tract without the intention of further subdivision.

The water supply system shall be constructed to serve all lots shown on the subdivision plat with water for both domestic use and fire protection. Fire hydrants shall be installed at street intervals of one thousand (1,000) feet where sufficient size lines exist and where water pressure is satisfactory.

#### I. Sanitary Sewers

When located within a sewer service area, sanitary sewers shall be installed in such a manner as to serve adequately all lots with connection to the public system.

Where lots cannot be economically connected with a sewerage system, they must contain adequate area for the installation of approved septic tank and disposal fields and must be approved in writing by the county health officer.

#### J. Street Name Signs & Regulatory Warning Signs

Signs shall be installed by the developer and appear at all intersections in new residential subdivisions including intersections with county roads. Appropriate regulatory and warning signs shall be installed, as needed, and shall conform to Uniform Traffic Control Manual guidelines.

#### K. Requirements for Acceleration and Deacceleration Lanes

In order to provide for the safe and orderly movement of traffic on existing streets, the Jefferson County Regional Planning Commission may require a developer to construct such lanes for acceleration and deacceleration as may be appropriate. The commission's decision will be based on the existing road widths, average daily traffic and safety conditions of the area.

#### L. Electric Transmission Lines

The subdivider shall provide the necessary major electric distribution lines throughout the subdivision. The system shall be constructed to serve all lots shown on the subdivision plat through the responsible electric utility.

## M. <u>Guarantee in Lieu of Completed Improvements</u>

No final subdivision plat shall be approved by the planning commission or accepted for record by the county register of deeds until one of the following conditions has been met:

- 1. All required improvements have been constructed in a satisfactory manner and approved by the regional planning commission.
- 2. The regional planning commission has accepted a letter of credit, security or performance bond in an amount equal to the estimated cost of installation of the required improvements, whereby improvements may be made and utilities installed without cost to Jefferson County in the event of default of the subdivider. The conditions of such security or performance bond shall provide for the installation of the improvements covered by such bond within a period of not to exceed eighteen (18) months; provided however, that such period may be extended by the regional

planning commission with the consent of the parties thereto if the regional planning commission finds that the public interest will not be adversely affected by such extension. If the regional planning commission decides at any time during the bond's tenure that the extent of the building development that has taken place in the subdivision is not sufficient to warrant all the improvements covered by such performance bond, or that required improvements have been installed as provided in this section in sufficient amount to warrant reduction in the face amount of said bond, or that the character and the extent of such development require additional improvements for any or all such improvements, the face value of such performance bond shall thereupon be reduced or increased by an appropriate amount so that the new face amount will cover the cost in full of the amended list of improvements.

Performance bonds which are submitted in lieu of the installation of required improvements shall be in cash or with a surety approved by the regional planning commission. The regional planning commission, in its discretion, may waive the requirement of a surety.

- 3. Any owner or agent of any land may sell, transfer, or agree to sell any lot or lots shown on a plat having received preliminary approval by the regional planning commission, provided the owner or agent posts an acceptable performance or security bond guaranteeing to the public the actual construction and installation of the necessary improvements within the specified time period.
  - Sale of subdivision by auction does not exempt the subdivider from posting acceptable security in lieu of completed improvements. However, in the case a parcel is sold as a whole, the security or performance bond will be immediately released by the regional planning commission.
- 4. A certified check in the full amount of the estimated cost of installing all required improvements has been posted with the regional planning commission.
- 5. An escrow account in the full amount of the estimated cost of installing required improvements has been established.

#### **ARTICLE V**

#### ENFORCEMENT AND PENALTIES FOR VIOLATIONS

#### A. General

The enforcement of these regulations and penalties for the unproved recordation or transfer of land are provided by state law in the authority granted by Public Acts of the State of Tennessee.

# B. Enforcement

- 1. No plat or plan of a subdivision of land into two (2) or more lots located within the area of planning jurisdiction shall be admitted to the land records of Jefferson County or received or recorded by the County Registrar until said plat or plan has received final approval in writing by the planning commission, as provided in Section 13-3-402, <u>Tennessee Code Annotated</u>.
- 2. No board, public officer, or authority shall light any street, or lay or authorize the laying of water mains or sewers, or the construction of other facilities or utilities in any street located within the area of planning jurisdiction unless such street shall have been accepted, opened or otherwise received the legal status of a public street prior to the adoption of these regulations, or unless such street corresponds in its location and lines to a street shown on a subdivision plat approved by the planning commission, as provided in Section 13-3-406, <u>Tennessee Code Annotated</u>.

#### C. Penalties

- 1. No county registrar shall receive, file, or record a plat of a subdivision within the planning region without the approval of the planning commission as required in Section 13-3-402, Tennessee Code Annotated, and any county registrar so doing shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by law.
- 2. Section 13-3-410, <u>Tennessee Code Annotated</u>, provides that whoever being the owner or agent of the owner of any land, transfers or sells or agrees to sell or negotiates to sell, such land by reference to or exhibition of or by other use of a plat of subdivision of such land without having submitted a plat of such subdivision to the planning commission and obtained its approval as required before such plat be recorded in the office of the appropriate county register, shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by the law; and the description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the transaction from such penalties. The county, through its county attorney or other official designated by the quarterly county court, may enjoin such transfer or sale or agreement by action for injunction.
- 3. Any building or structure erected or to be erected in violation of the subdivision regulations shall be deemed an unlawful building or structure, and the building commissioner or solicitor of the county or other official designated by the chief legislative body and/or the county attorney or other official designated by the quarterly county court may bring action to enjoin such erection or cause it to be vacated or removed as provided in Section 13-3-411, <u>Tennessee Code Annotated</u>.

# **ARTICLE VI**

# **ADOPTION AND EFFECTIVE DATE**

A. Before adoption of these subdivision regulation 4-303, <u>Tennessee Code Annotated</u> , was afford was announced in a local paper, being of generating the time and place for the hearing.	ded any interested person	or persons. Notice of such hearing
B. These rules and regulations and any amendme adoption and effective date.	ent thereto shall be in full	force and effect from and after their
Jefferson County Regional Planning Commission:		
Chairman	Adopted	Public Hearing

APPENDICES

# APPENDIX I

# PRELIMINARY PLAT CHECKLIST

Name of Subdivision:			
Location:		Civil Dist	Zoning Dist
Owner:	Address:		Tel
Surveyor:	Address:		Tel
<ul> <li>( ) Plat drawn to 1" = 100</li> <li>( ) Date, ( ) north point, &amp;</li> <li>( ) Locations &amp; dimension bridges, driveways, ct</li> <li>( ) Identification of zonint</li> <li>( ) Plans of proposed utilt</li> <li>( ) Proposed street names</li> <li>( ) Locations and dimens reservations, lot lines</li> <li>( ) Contour lines at five (</li> </ul>	f surveyor. submitted to building official	ets, buildings, water courses etc. asements, parks and other o	
•			Approved?
3)			Approved?
() This plat was approve	ed on		the following conditions:
( ) This plat was denied a	annroval on	for the fol	lowing reasons:

# APPENDIX II

# FINAL PLAT CHECKLIST

Location:		Civil Dist	Zoning Dist
Owner:	Address:		Tel
Surveyor:	Address:		Tel
Plat Checklist			
() Date, () title), ()	name, ( ) location, ( ) graphic scale, &	& ( ) north point.	
	esses of property owners.		
( ) Name & ( ) addre			
() Six (6) copies of p	olat submitted to building official	·	
	= 100' on sheets no larger than 24" x 3		
	vision and the acreage or square foota		1 . 1
	y rights-of-way, building setback line	es, reservations for easement	s, and any areas to be
dedicated to publ	ic use. readily reproduce on the ground the l	agations baggings and lange	th of avery street
right-of-way line,		ocations, bearings, and length	iii oi every sireet
	the nearest one hundreth (100 <sup>th</sup> ) of a f	foot and angles to the neares:	t minute
	scriptions of monuments.	toot and angles to the heares	i illiliate.
	ons of adjoining subdivisions and stre	eets and the locations and ow	mership of adjoining
unsubdivided pro		or and the recording this even	meromp or wajoning
() Location sketch n			
() Locations of areas	•		
	ership & dedication.		
() Certificate of acci	iracy.		
() Certificate of app	roval of water systems.		
() Certificate of app	roval of sewerage system.		
() Certification of su	ıbsurface sewage disposal.		
	orm water detention.		
() Certification of ex			
() Certification of st			
() Certification of st			
() Certification elect			
() Certificate of app	roval for recording.		
Variances Requested	<u>:</u>		
1)			Approved?
2)			Approved?
	roved on		

( ) This plat was denied approval on	for the following reasons:

# APPENDIX III

# T AND Y TURNAROUND SPECIFICATIONS

# APPENDIX IV

# TYPICAL ROADWAY SECTION WITH CURBING

#### APPENDIX V

## PRIME COAT REQUIREMENTS

1. After a thoroughly compacted and broomed base has been established, a prime coat shall be applied as follows:

Between April and November 15 at a temperature of 35 degrees or above, tar grade RT-2 or RT-1 inclusive, or MC-1 or MC-2, shall be applied at the rate of four-tenths (4/10) gallon per square yard of base surface. The stone chips graded from one-half (1/2) inch down to number eight (8) with no dust shall be applied at the rate of ten (10) to fifteen (15) pounds per square yard, rolled until thoroughly compacted and left to cure for such time as the road engineer may direct but not less than seven (7) days.

#### APPENDIX VI

## ONE COURSE ASPHALTIC CONCRETE WEARING SURFACE (PLANT MIXED)

#### A. Description:

This wearing surface shall consist of aggregate and bituminous material mixed in a central plant, constructed on the prepared base in accordance with these specifications and in conformity with the lines, grades, and typical cross sections as shown on the accepted drawings.

#### B. Materials:

- 1. Liquid asphalt for the tack coat shall be grade RC-2.
- 2. Asphalt cement to be used in the asphaltic concrete shall be uniform in character, free from water and shall not foam when heated to 350° F., and shall meet the following requirements for penetration:
  - a. Penetration at 77° F., 100 grams, 5 seconds 100 to 120
  - b. No mineral matter other than that naturally contained in the asphalt shall be present.
  - c. Aggregate shall consist of fine gravel and sand, disintegrated granite, or other similar granular materials. The portion of the material retained on a No. 4 sieve shall be known as coarse aggregate, and that portion passing a No. 4 sieve shall be known as filler.
  - d. The materials shall be graded and proportioned as follows:

Sieve Designation	Passing Square Mesh Sieve
1 inch	100
3/4 inch	85-100
No. 4	60- 95
No. 10	45-80
No. 200	5- 15
Asphalt by Weight	4 - 8

## C. <u>Construction Methods</u>:

- 1. Apply Tack Coat: Immediately before placing the bituminous mixture, the existing surface shall be cleaned of loose or deleterious material by sweeping with a power broom and hand broom. The surface shall be thoroughly dry before applying the tact coat. When the existing surface has been put in proper condition, a tack coat shall be applied to the surface at the rate of 0.1 gallon per square yard by a power distribution of approved type, having a pressure of not less than forty (40) pounds per square inch. The bituminous mixture shall be spread and finished immediately after the tack coat has been applied. The finished thickness shall not be less than two (2) inches and shall not weigh less than two hundred twenty (220) pounds per square yard per inch of compacted thickness.
- 2. <u>Spreading and Finishing</u>: Where cement, concrete, or masonry edging is not specified on the accepted plans, suitable side forms or wood or steel shall be firmly fastened in place and shall be true to line and grade as shown on the accepted plans. These forms shall remain in place until initial compaction has been obtained. The bituminous mixture shall be delivered on the job at a

temperature of not less than 250° F. Whenever practical, the mixture shall be spread by means of an approved mechanical self-powered paver, capable of spreading the mixture true to the line and grade and crown as shown on the accepted plans and cross sections. When the mixture is to be spread by hand, it shall be deposited outside the area on which it is to be spread. Immediately thereafter it shall be distributed into place by means of hot shovels and spread with hot rakes in a loose layer of uniform density and correct depth. Loads shall not be dumped and distributed any faster than they can be properly handled by the shovelers and rakers. The raking shall be carefully and skillfully done in such a manner that after the first passage of the roller over the raked mixture a minimum amount of back patching will be required.

Placing of the mixture shall be as continuous as possible, and the roller shall pass over the unprotected edge of the freshly laid mixture only when the laying of the course is to be discontinued for such length of time as to permit the mixture to become chilled.

Longitudinal and transverse joints shall be well-bonded and sealed. If necessary to obtain this result, the joints shall be cut back to the full depth of the previously laid course, painted with hot asphalt, and heated. Before placing the mixture against them, all contact surfaces of curbs, gutters, headers, manholes, etc., shall be painted with a thin uniform coating of hot asphalt cement or asphalt cement dissolved in naphtha.

After spreading, the mixture shall be thoroughly compacted by a three-wheel power driven roller, weighing not less than ten (10) tons, as soon after being spread as it will bear the roller without undue displacement.

Rolling shall start longitudinally at the sides and proceed toward the center width of the rear wheel. The pavement shall then be rolled diagonally in two directions with a tandem roller, weighing not less than ten (10) tons, the second diagonal rolling shall cross the lines of the first. Along curbs, headers, manholes, and similar structures and at all places not accessible to the roller, thorough compaction must be secured by means of hot tampers and at all contacts of this character the joints between these structures and the surface mixture must be effectively sealed.

3. <u>Seasonal Limits</u>: No asphalt material shall be laid when the temperature of the air is 50° F. and falling nor during unfavorable weather conditions.

## APPENDIX VII

# CEMENT, CONCRETE CURBING, AND SIDEWALKS

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Α.	Desc	rn	ntio	m
<b>△1.</b>	DUSU		$\sigma$	

This item shall consist of Portland cement concrete curbs, curbs and gutters, or sidewalks	s constructed on a prepared
subgrade in accordance with these specifications and either of the cross-sections shown.	The required width of the
base varies with the type of curbing selected:	

Illustration here

Type A. Base two (2) feet narrower than required pavement width.

Type B. Base two (2) feet narrower than required pavement width.

Type C. Base equal to required pavement width.

Type D. Base two (2) feet wider than required pavement width.

## B. <u>Materials</u>

- 1. <u>Aggregates</u>: Coarse aggregate shall consist of crushed gravel. It shall be clean, hard, tough, durable pieces free from injurious amounts of soft friable, thin, elongated or laminated pieces, soluble salts, organic or other deleterious matter.
- 2. Fine aggregate shall consist of either a natural sand or a stone sand composed of sound particles of approved stone. All sand shall be free of clay or other adherent coatings and injurious amounts of deleterious matter.
- 3. <u>Cement</u>: Standard Portland cement and high early strength Portland cement shall meet the requirements of current federal specifications SS-C-192 or equal.
- 4. Water: Water shall be free from oil, acids, alkali and vegetable matter and shall be clean.
- 5. <u>Gradation</u>: The aggregate when tested by means of laboratory sieves shall meet the following requirements:

# Percent by Weight Passing Square Mesh Sieve

Sieve Designation	Coarse Aggregate	Fine Aggregate
1-1/2 inch	100	
1 inch	95-100	
1/2 inch	35- 70	
3/8 inch		100
No. 4	0 -10	95-100
No. 16		45-80
No. 50		10- 30
No. 100		2- 10

6. <u>Proportions</u>: Concrete shall contain six (6) bags of cement per cubic yard and shall be proportioned in an approximate 1:2:4 mix as follows: Mix with each bag of cement 188 pounds of fine aggregate and 345 pounds of coarse aggregate, using six (6) gallons of water. Weight of aggregates is based on a specific gravity of 2.65. Compressive strength shall be 3,000 pounds per square inch at 28 days.

## C. Construction Methods

- 1. <u>Preparation of Subgrade</u>: All boulders, organic material, soft clay, spongy material, and any other objectionable material shall be removed and replaced with approved material. The subgrade shall be properly shaped, rolled and uniformly compacted to conform with the accepted cross-sections and grades.
- 2. <u>Forms for Concrete</u>: The forms for the concrete shall be of wood or metal, straight, free from warps or kinks and of sufficient strength. They shall be staked securely enough to resist the pressure of the concrete without spring. When ready for the concrete to be deposited they shall not vary from the approved line and grade and shall be kept so until the concrete has set. Where a face form for a curb is used it shall be so designed as to permit it to be securely fastened to the other forms.

- 3. <u>Placing and Finishing Concrete</u>: Just prior to placing the concrete, the subgrade (or base) shall be moistened, the concrete mixed to the proper consistency shall be placed in the forms and thoroughly tamped in place so that all honeycombs will be eliminated and sufficient mortar will be brought to the surface. After this the surface shall be brought to the smooth even finish by means of a wooden float. All faces adjacent to the forms shall be spaced so that after the forms are stripped the surface of the faces will be smooth, even and free of honeycomb. All edges shall be tool rounded. Slope sidewalks one quarter (1/4) inch per foot toward the pavement surface.
- 4. Expansion and Contraction Joints for Concrete: Half-inch (1/2) expansion joints shall be placed at intervals not exceeding sixty (60) feet. At intervals not greater than ten (10) feet nor less than five (5) feet the concrete curb shall be scored for a depth equal to one-third (1/3) the total depth of the concrete. Sidewalks shall be scored to a depth of one (1) inch every four (4) to six (6) feet and at all intersections with curbs or other structures.
- 5. <u>Curing Concrete</u>: When completed the concrete shall be kept moist for a period of not less than seven (7) days and longer, if necessary, and shall be protected from the elements in a satisfactory manner.
- 6. <u>Backfilling</u>: Backfill shall be of suitable selected material and shall be placed and tamped in layers of not over six (6) inches in depth until firm and solid. Backfilling shall follow immediately after the concrete forms have been removed, and shall be higher than and sloped toward the top of the curb to insure surface drainage on the paved surface of the roadway. Paved and "V" type ditches for drainage behind the curb will not be permitted. Slope sidewalk planting strips shall be placed one-quarter (1/4) inch per foot toward the pavement surface.

## D. <u>Seasonal Limits</u>

1. No concrete shall be poured on a frozen or thawing subgrade, or during unfavorable weather conditions, or when the temperature is 38° F. and falling.

# APPENDIX VIII

# CULVERT HEADWALL DETAIL