OFFICIAL

BRADLEY COUNTY, TENNESSEE

SUBDIVISION REGULATIONS

PREPARED FOR THE

BRADLEY COUNTY REGIONAL PLANNING COMMISSION

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PREPARED BY THE
BRADLEY COUNTY PLANNING OFFICE

(These regulations are considered complete and in force at the time of adoption and are subject to change from time to time. It shall be the responsibility of the owner or developer to check for any amendments which may have occurred in any Article or Section prior to any development occurring.)

BENTLY THOMAS
DIRECTOR OF PLANNING AND INSPECTIONS

As Amended Through April 17, 2025

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F O R E W O R D

The basic and fundamental principles followed by the Bradley County Regional Planning Commission in its adoption of subdivision regulations were written over 50 years ago by the Tennessee Legislature in Chapter 45, Public Acts of 1935. (These laws are now contained in Sections 13-3-401 through 13-3-411 of the **Tennessee Code Annotated.**)

A further and fuller look at this legislative "birth certificate" of Subdivision Regulations discloses that planning commissions are authorized and directed by said Act to adopt such regulations as will accomplish the following objectives:

1. The harmonious development of the county and its environs;

2. The coordination of roads within subdivisions and with other existing or planned roads, and with the plan of the county;

3. The provision of adequate open spaces for traffic, recreation, light and air; and

4. The distribution of population and traffic in a manner which will create conditions favorable to health, safety, convenience, and prosperity.

The said Act also authorizes municipal and regional planning commissions to prescribe requirements as to the extent and manner in which roads shall be graded and improved, and water, sewer and other utility mains, piping and connections of other facilities shall be installed as a condition precedent to the approval by the commission of any subdivision plat.

Subdivision regulations, realistic in their provisions and designed to benefit all concerned (the developer, the builder, the homeowner, and the taxpayer), will work no hardship on anyone and will be an important factor in promoting the growth and prosperity of the entire area. Such regulations are needed in order to assure that Bradley County and its environs will become a more prosperous and more attractive area. New industry will have greater inducements to locate here, and prospective homeowners will have a wider and better choice of desirable home sites.

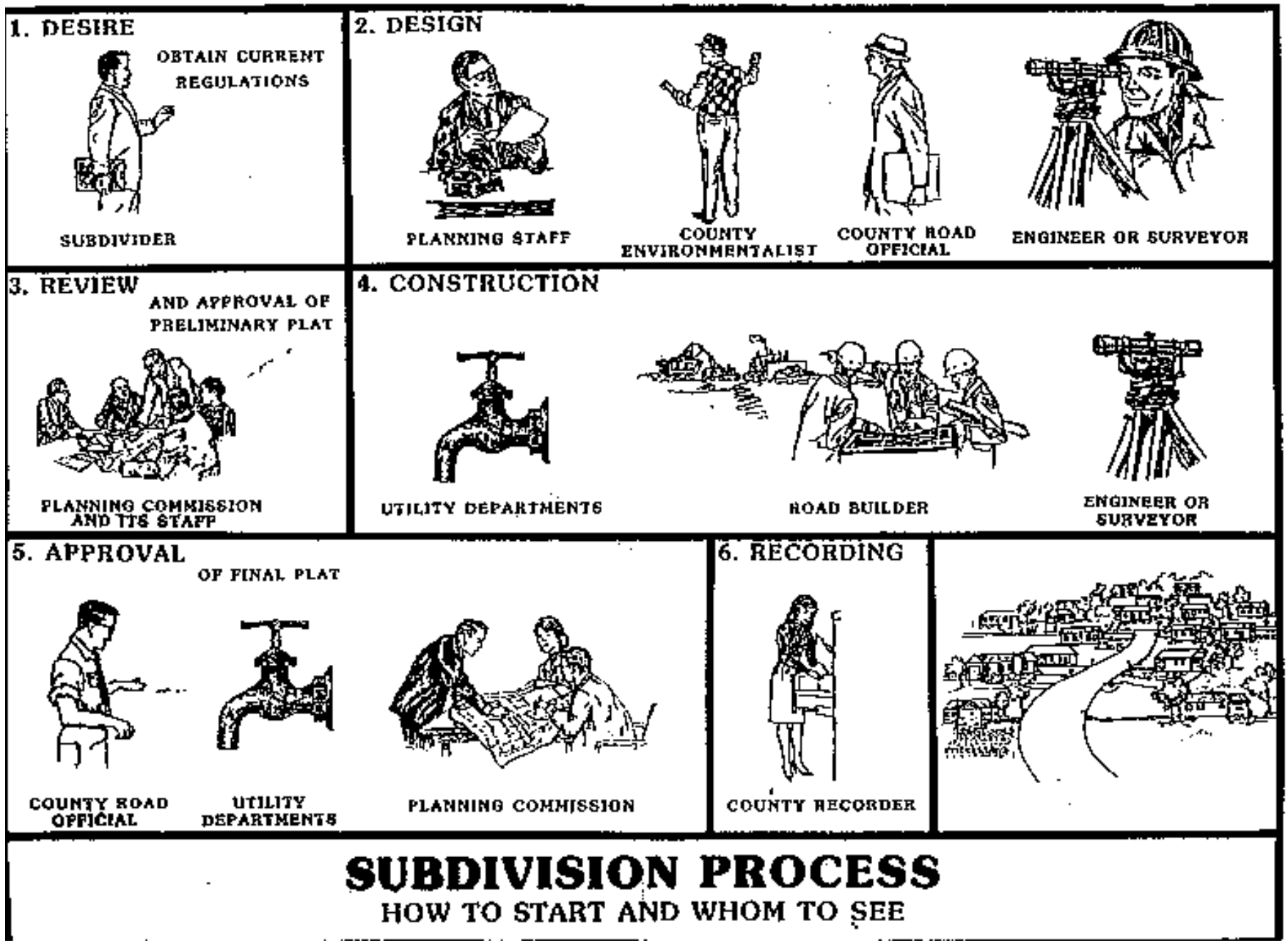
In the adoption and administration of Subdivision Regulations for the Bradley County Planning Region, the Bradley County Regional Planning Commission has sought and will seek to do that which is for the greatest good of the greatest number of citizens. It does not propose to make elaborate plans just for the sake of planning, neither does it propose to burden the developer of new residential areas and the builder of new houses with unreasonably costly or unnecessary requirements. It does propose to carry out the instructions which the State Legislature gave it by law and to prescribe and require that reasonable and proper minimum standards be met in the creation and development of any new subdivisions within the area over which the law gives it jurisdiction.

ARTICLE 1

PREAMBLE, ENACTMENT CLAUSE, AND SHORT TITLE

IN PURSUANCE OF AUTHORITY SET FORTH IN SECTION 13-3-401 THROUGH 13-3-411, **TENNESSEE CODE ANNOTATED**, AND FOR THE PURPOSE OF PROMOTING THE HEALTH, SAFETY, MORALS, CONVENIENCE, ORDER, PROSPERITY, AND GENERAL WELFARE OF THE COUNTY; TO ENCOURAGE ECONOMICALLY SOUND AND STABLE LAND DEVELOPMENT; TO ASSURE THE PROVISION OF REQUIRED ROADS, UTILITIES, AND OTHER FACILITIES AND SERVICES TO LAND DEVELOPMENTS; TO ASSURE THE ADEQUATE PROVISION OF SAFE AND CONVENIENT TRAFFIC ACCESS AND CIRCULATION, BOTH VEHICULAR AND PEDESTRIAN, IN LAND DEVELOPMENT; TO ASSURE THE PROVISION OF NEEDED PUBLIC OPEN SPACES AND BUILDING SITES IN LAND DEVELOPMENTS THROUGH THE DEDICATION OR RESERVATION OF LAND FOR RECREATIONAL, EDUCATIONAL AND OTHER PUBLIC PURPOSES; AND TO ASSURE THAT LAND IS DEVELOPED IN CONFORMITY WITH THE COMPREHENSIVE PLAN OF BRADLEY COUNTY, THE REGIONAL PLANNING COMMISSION OF BRADLEY COUNTY, TENNESSEE, DOES ADOPT AND ENACT THE FOLLOWING ARTICLES AND SECTIONS.

THIS DOCUMENT SHALL BE KNOWN AND MAY BE CITED AS ***THE "BRADLEY COUNTY, TENNESSEE, SUBDIVISION REGULATIONS."***


1. DESIRE
OBTAIN CURRENT REGULATIONS
SUBDIVIDER
2. DESIGN
PLANNING STAFF
COUNTY ENVIRONMENTALIST
COUNTY ROAD OFFICIAL
ENGINEER OR SURVEYOR
3. REVIEW
AND APPROVAL OF PRELIMINARY PLAT
PLANNING COMMISSION AND ITS STAFF
4. CONSTRUCTION
UTILITY DEPARTMENTS
ROAD BUILDER
ENGINEER OR SURVEYOR
5. APPROVAL
OF FINAL PLAT
COUNTY ROAD OFFICIAL
UTILITY DEPARTMENTS
PLANNING COMMISSION
6. RECORDING
COUNTY RECORDER
SUBDIVISION PROCESS
HOW TO START AND WHOM TO SEE

ARTICLE 2

DEFINITIONS OF CERTAIN TERMS USED HEREIN

Except as specifically defined herein, all words used in these regulations have their customary dictionary definitions where not inconsistent with the context. For the purpose of these regulations, certain words or terms are defined as follows:

The term "shall" is mandatory and means "must." The word "may" is permissive. When not inconsistent with the context, words used in the singular include the plural and those used in the plural include the singular. Words used in the present tense include future.

The words "ordinance" and "regulations" are used interchangeably. The word "person" includes a firm, association, corporation, organization, partnership, trust, company, and an unincorporated association of persons such as a club, as well as an individual. The words "used" or "occupied" as applied to any land or building shall be construed to include the words "intended, arranged, or designed to be used or occupied".

NOTE: The extent of definitions contained in the various standards varies. The definitions included here are those deemed essential to avoid misunderstanding due to different usages of terms. Some regulations define other words such as "Corner Lot," etc. However, these usually are generally understood and their meaning is clear when used in the context.

Access. The right to cross between public and private property, thereby permitting pedestrians and vehicles to enter and leave property.

Alley. A minor right-of-way, 30 feet or less in width, dedicated to the public use, which affords a secondary means of vehicular access to the back or side of properties otherwise abutting a street, and which may be used for public utility purposes.

Alternative Or Decentralized Sewer System. A wastewater system which collects, treats and disposes of wastewater in general proximity to where the wastewater is being generated. (added 7/11/2006)

Bond. Any form of security (including a cash bond, surety bond, undated letter-of-credit, cashiers check, or certified check) in an amount and form satisfactory to the planning commission for the amount of the estimated construction cost guaranteeing the completion of physical improvements according to plans and specifications within the time prescribed by the subdivider's agreement with the BCRPC.

Building. Any structure used or intended for supporting or sheltering any use or occupancy.

Deed Restrictions. A private covenant among the residents of a subdivision or development limiting uses or setting conditions within the subdivision or development.

Developer. Any individual, Subdivider, firm, association, syndicate, partnership, corporation, trust, or any other legal entity commencing proceedings under these regulations to effect a subdivision of land hereunder for himself or for another (see "Subdivider").

Easement. The right given by a property owner to another party (either public or private) for a specific limited use of a designated part of his property.

Easement, Drainage. A perpetual, unobstructed easement across property reserved to carry surface water drainage along specified routes to natural watercourses. Drainage easements shall not be filled or built upon in any way that will impede the flow of surface water.

Easement, Utility. An easement for the installation, operation, inspection, maintenance, repair, or replacement of public utility lines, cables, poles, ditches, pipes, manholes, etc. and the appurtenances belonging thereto.

Easement, Vehicular. The right granted by the owner of land to another party by deed or prescription, to allow vehicular access across one parcel of land to another.

Flag Lot. An interior lot located to the rear of another lot but with a narrow portion of the lot extending to the road. The narrow portion of the lot that extends to the road shall be suitable for ingress and egress, and shall be included in the calculation of the minimum lot area.

Flood. A temporary rise or overflow of a body of water onto adjacent lands not normally covered by water.

Other FLOOD-RELATED TERMS are defined as follows: (Also see the Bradley County FloodPlain Zoning Resolution)

Channel. A natural or artificial watercourse with definite bed and banks to confine and conduct continuously or periodically flowing water. The top of the banks form the dividing lines between the channel and the floodplain.

Floodplain. The relatively flat area or lowlands adjoining a watercourse or other body of water which has been or may be covered by water.

Floodway. The channel of the watercourse and those portions of the adjoining flood plain which are reasonably required to provide for the passage of flow from the regulatory flood (the 100-year Flood). This area must be left unobstructed in order to preserve the flood-carrying capacity of the stream and its flood plain without appreciably increasing the height of the floodwaters.

Floodway Fringe. That part of the flood plain located between the floodway and the designated outline of the 100-year Flood which would be covered by flood waters of the 100-year Flood. Uses are permitted if they are protected by fill, flood-proofed, or otherwise protected.

Regulatory Flood. A large flood selected for regulatory purposes and a basis for floodplain management. In Bradley County, as in most places, the 100-year Flood is the regulatory flood or base flood and there are no flood restrictions outside its limit. The 100-year Flood statistically has a one-percent chance of occurring each year.

Frontage. The side of a lot abutting on a road or a street, only one side of a corner lot shall be regarded as frontage.

1. Frontage is the width of a lot as measured at the front yard setback line.

2. For a flag lot, frontage is measured at the narrowest width of the lot, excluding the stem of the lot extending to a road.

Grade (slope). The slope of a road, or the ground, specified by the percentage that the horizontal distance is to the vertical rise which occurs within the horizontal distance.

Health Department. The director of the county or district health department having jurisdiction over the county health, or his duly authorized representative, usually a county environmentalist who works for the Tennessee Department of Environment and Conservation.

Improvements, Subdivision. Road pavement or resurfacing, curbs, gutters, sidewalks, water lines, sewer lines, storm drains, street lights, flood control and drainage facilities, utility lines, landscaping, and other related facilities normally associated with the development of raw land into building sites and which may be required by subdivision regulations.

Lot. A portion or parcel of land separated from other portions or parcels by description as on a subdivision plat or record of survey map or as described by metes and bounds, and intended for transfer of ownership or for building development. For the purpose of these regulations, the term does not include any portion of a dedicated right-of-way.

Lot, Non-residential. A lot intended to be used for purposes other than residential structures and their accessory uses; such as for commercial or industrial development.

Lot of Record. A designated tract of land as shown on a plat or other document recorded in the County Register's Office or the County Assessor of Property's Office.

LOT DIMENSIONS are defined as follows:

> **Lot Area.** The total area of a lot calculated from surveyed boundaries or other reliable means. The lot area of a flag lot shall include its access strip.
>
> **Lot Width.** The width of the lot measured along a straight line between side lot lines (generally parallel to the road) and measured at the building setback line as indicated on the plat.
>
> **Lot Depth.** The average distance from the front lot line measured perpendicularly to the rear lot line.

Mobile Home. A factory-manufactured structure or housing unit at least eight feet in width and 40 feet in length, which is not self-propelled, but which is built as a single unit and is transportable. It is built on a permanent single chassis and is designed to be used with or without a permanent foundation when connected to the required utilities. It does not include recreational vehicles or travel trailers.

Monuments. Permanent concrete or iron markers used to establish definitely all lines or the plat of a subdivision, including all lot corners, boundary lines, corners, and points of change in road alignment.

Non-residential Subdivision. A subdivision whose intended use is other than residential such as commercial or industrial to include shopping centers or malls. Such subdivisions shall comply with the applicable provisions of these regulations.

Offer of Dedication. The act of granting land or roads to an entity, such as the government, association, person, etc. The offer of dedication shall not constitute the acceptance of such land or roads by the local government, association or person.

Owner. Any person, group of persons, firm or firms, corporation or corporations, or any other legal entity having legal title to or sufficient proprietary interest in the land sought to be subdivided under these regulations.

Planning Commission. The Bradley County Regional Planning Commission (BCRPC) which is the official planning commission for Bradley County.

Planning Region. The land within the Bradley County Planning Region. More specifically, all land in Bradley County which is outside of incorporated municipalities and their planning regions, if any.

Planning Staff. The planners and/or inspectors in the Bradley County Office of Planning.

Plat. The scale drawing or map of a subdivision including plat, plan, plot, or replot.

> **Preliminary Plat.** A subdivision plat showing the proposed lot arrangement and with the provisions contained in Article 5. It is generally submitted to the BCRPC for approval prior to the preparation of the final plat.
>
> **Final Plat.** A subdivision plat prepared in accordance with the provisions contained in Article 7. The final plat is designed to be placed on record with the County Register after approval by the planning commission.

Public Sewer System. Any system designed and constructed for purpose of sanitary sewerage disposal that is operated by a governmental entity which has a legally enforceable obligation to provide the perpetual repair, maintenance and operation of the system. Repair, maintenance and operation of such systems shall be governed by the governmental entity furnishing the service, subject to all rules and regulations of the State of Tennessee. (added 7/11/2006)

Resubdivision. A change in a map of an approved or recorded subdivision plat if such change affects any road layout on such map, or area reserved thereon for public use, or any lot line; even if all the lots are over five (5) acres; or if it affects any map or plan legally recorded prior to the adoption of any regulations controlling subdivisions.

Right-Of-Way (R.O.W). A strip of land occupied or intended to be occupied by a road, crosswalk, railroad, road, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer main, or for another special use. The usage of the term "right-of-way" for land platting purposes shall mean that every right-of-way hereafter established and shown on a final plat is to be separate and distinct from the lots or parcels adjoining such right-of-way and not included within the dimensions or areas of such lots or parcels. Right-of-way intended for roads, crosswalks, water mains, sanitary sewers, storm sewers, storm drains, or any other use involving maintenance by a public agency shall be dedicated to public use by the maker of the plat on which such right-of-way is established. Such rights-of-way shall not become a governmental responsibility until accepted, however.

Road. Any right-of-way designed for vehicular movement. "Road" includes the full width of the right-of-way between property lines as well as the traveled portion thereof. "Road" includes "street", "highway", or any other designation of a right-of-way designed for vehicular movement.

For the purpose of these regulations, ROADS are divided into the following categories:

1. **Interstate.** The highway designated as such on the Bradley County, Tennessee, Major Road Map.

2. **Arterial.** A road designated as such on the Bradley County, Tennessee Major Road Map. Arterials are the principal traffic carriers.

3. **Collector**. A road which primarily carries traffic from local roads to arterials. Collector roads include those designated as such on the county's Major Road Map. Some large subdivisions may require a collector road.

4. **Local Road.** A minor road or street primarily for providing access to residential, commercial, or other abutting property.

5. **Marginal Access Road.** a minor road parallel and adjacent to an arterial road which offers access to abutting properties and is used to limit access points on an arterial.

6. **Cul-de-sac**. a local road with only one outlet, sometimes called a "dead-end" road. A cul-de-sac is measured from its ingress to the dead-end.

7. **Crescent or Loop Road.** A local road which has its only ingress and egress at two points on the same local or collector road.

8. **Private Road.** A privately maintained road constructed on a recorded permanent easement and built according to the standards set forth in these regulations based on the number of lots the private road accesses. Generally "private roads" will also be classified as type 4, 5, 6, or 7 above.

Roadway. The actual road surface which is utilized to transport motor vehicles including necessary road shoulders and drainage facilities including ditches and curbing and guttering.

Road Paving Material Class. "Class" refers to the type and cleanliness of the paving material.

Road Paving Material Grade. "Grade" refers to the size of the aggregate in the paving material.

Sanitary Sewer System. A municipal or community sewage collection, treatment, and disposal system of a type approved by the Health Department.

Setback Line. A line established by the Subdivision Regulations, generally parallel with and measured from the lot lines, delineating the minimum allowable distance between the property line and a building on a lot within which no building or other structure shall be placed except as otherwise provided. For this description building means the perimeter of the building, excluding open steps, cornices, and terraces, but including porches, decks, and attached carports.

Sight Triangle. A triangular shaped portion of land established at road intersections in which nothing is erected, placed, planted or allowed to grow in such a manner as to limit or obstruct the sight distance of motorists entering or leaving the intersection. The triangle shall be the three-sided area formed by measuring back twenty-five (25) feet from the intersection of the two pavement edges along each pavement edge.

Subdivider. Any person who (1) having an interest in land causes it directly or indirectly to be divided into a subdivision or who (2) directly or indirectly sells, leases, or develops, or offers to sell, lease, or develop, or advertises for sale, lease, or development any interest, lot, parcel site, unit, or plat in a subdivision, or who (3) engages directly or through an agent in the business of selling, leasing, developing, or offering for sale, lease, or development a subdivision or any interest, lot parcel site, unit, or plat in a subdivision, and who (4) is directly or indirectly controlled by or under direct or indirect common control with any of the foregoing. (See also Applicant and Developer.)

Subdivision. The term "subdivision" means the division of a tract or parcel of land into two or more lots, sites, or other divisions for the purpose whether immediate or future, of sale or building development and includes re-subdivision.

"Subdivision" includes the two types of development or division listed below:

1. All such divisions where one or more of the resulting tracts is less than five acres in size.

2. All such divisions where a new road or public utility installation (water, sewer or electricity) is required, regardless of the size of any or all of the parcels.

The following type of "division" is not subdivision:

1. Divisions where the resulting tracts are all five (5) acres or more, all have frontage on an existing publicly-maintained road and where no extension of public water, sewer or electricity lines are required.

2. Minor testamentary division of property for the purpose of settlement of an estate is not a subdivision for the purpose of these regulations, except that lots of record must meet the design requirements of these regulations.

Subdivision Regulations. The 1997 "Bradley County, Tennessee, Subdivision Regulations" in its entirety and future amendments, thereto.

Townhouse. ***(See Article 8.)***

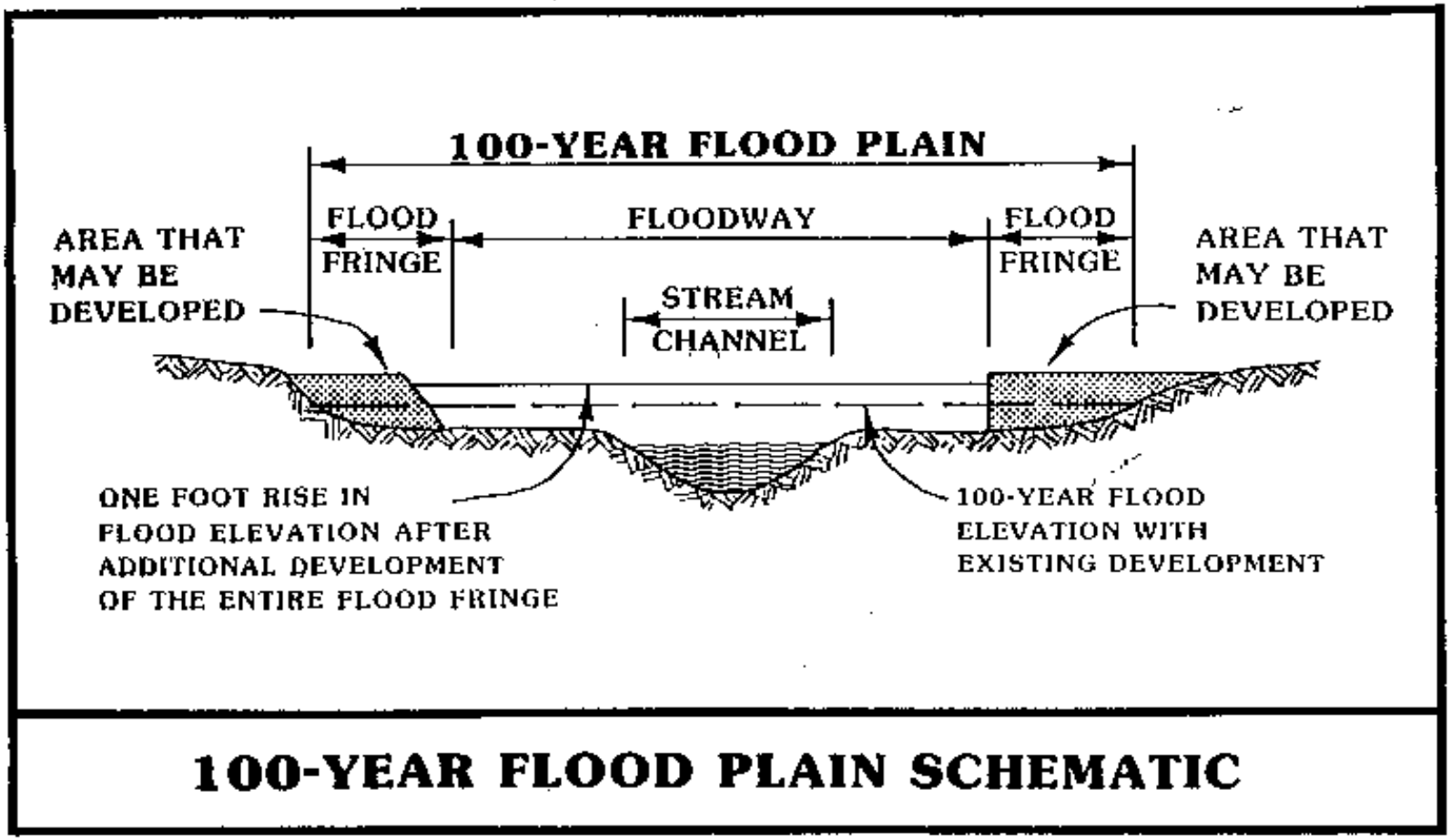
Utility, Public. A public utility is a business, organization, or government entity which is regularly supplying the public with some commodity or service to include, but not be limited to, such commodities or services as natural gas, electricity, water, telephone, sewage collection, cable television, etc., which requires the extension of lines, poles, cables, wires, pipes, etc. to individual buildings and which is being regulated for the public convenience and necessity by Federal, State, or Local Government.

Variance. A variance is a modification of the strict terms of the relevant regulations where such modification will not be contrary to the public interest and where, owing to conditions peculiar to the property and not the result of the action of the applicant, a literal enforcement of the regulations would result in unnecessary and undue hardship.

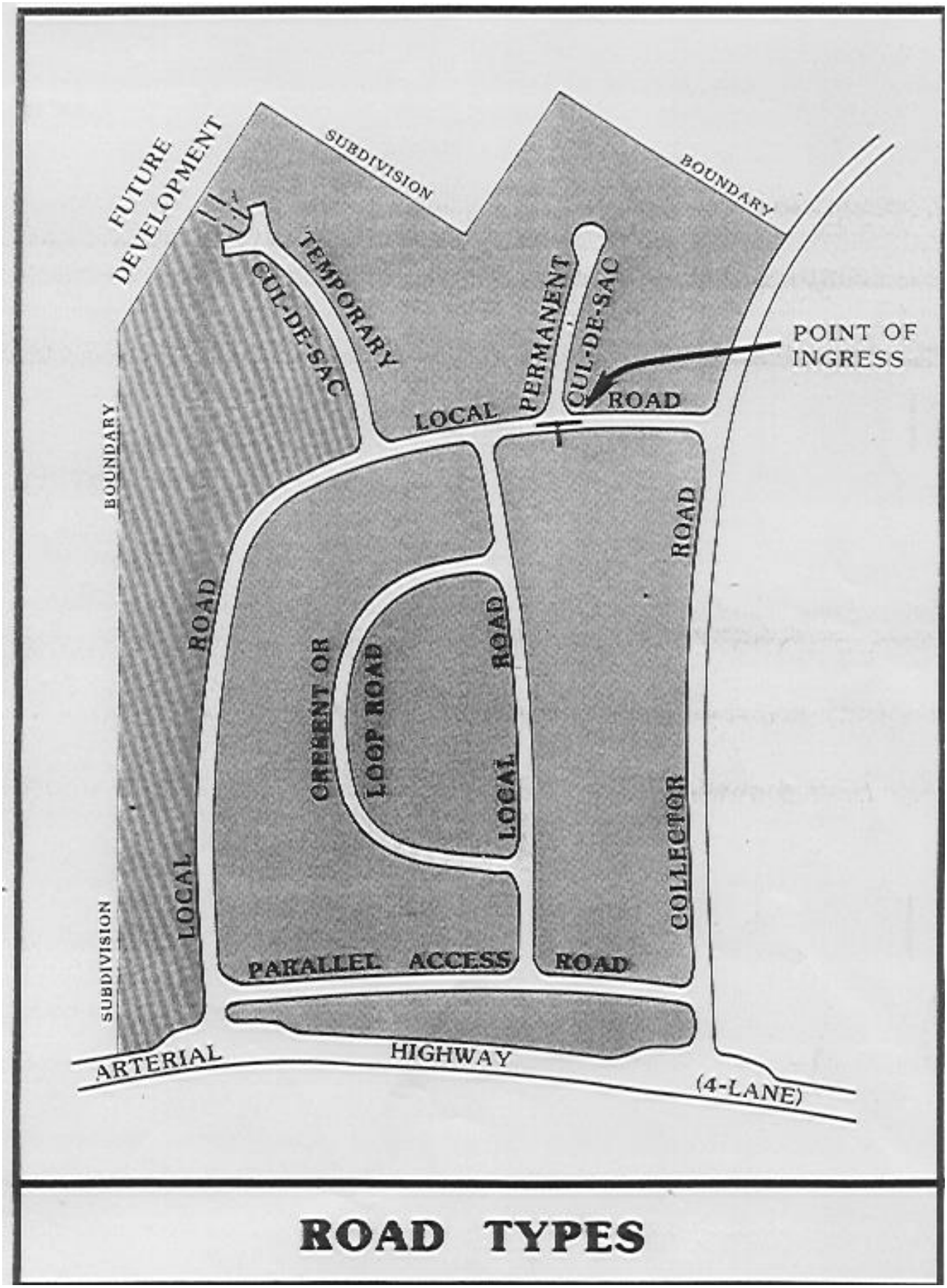
Yard, Front. The open space unoccupied by buildings between the road or street right-of-way line and the principal building.

Yard, Rear. The space unoccupied except by an allowed accessory use, extending from the rear of the principal building to the rear lot line, the full width of the lot.

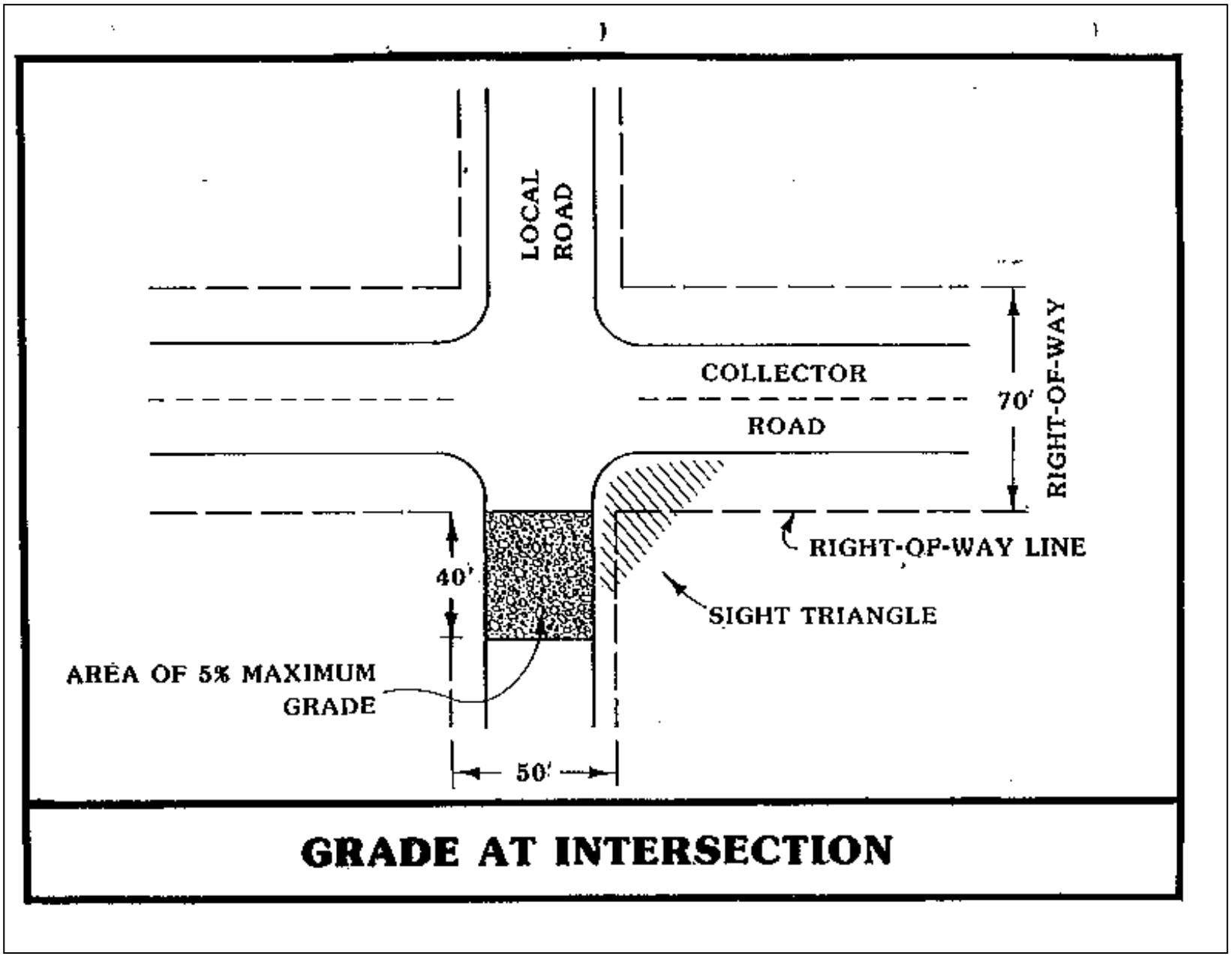
Yard, Side. The space, unoccupied except as herein provided, measured between side lot line and the nearest point of the principal building and between the front yard and the rear yard.



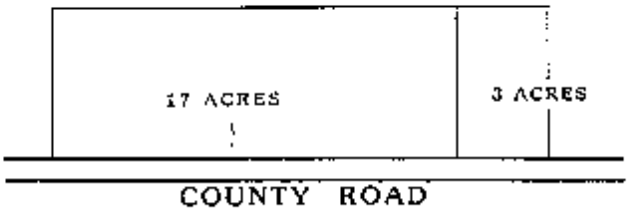
100-YEAR FLOOD PLAIN SCHEMATIC


FUTURE DEVELOPMENT
SUBDIVISION
BOUNDARY
TEMPORARY
CUL-DE-SAC
PERMANENT
CUL-DE-SAC
POINT OF INGRESS
BOUNDARY
LOCAL
ROAD
ROAD
ORBENT OR
LOOP ROAD
ROAD
LOCAL
ROAD
COLLECTOR
LOCAL
SUBDIVISION
PARALLEL ACCESS ROAD
ARTERIAL
HIGHWAY
(4-LANE)

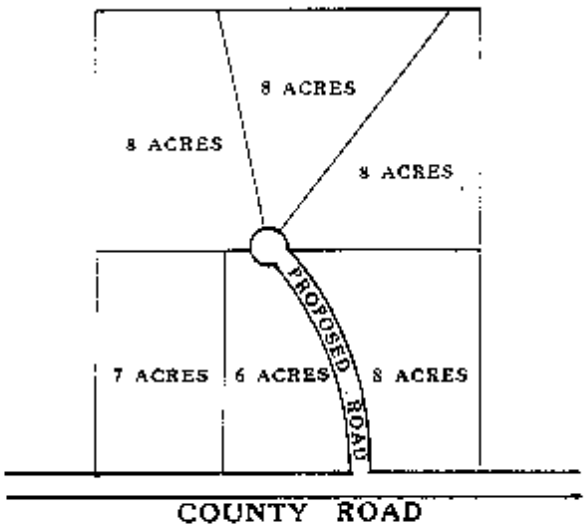
ROAD TYPES



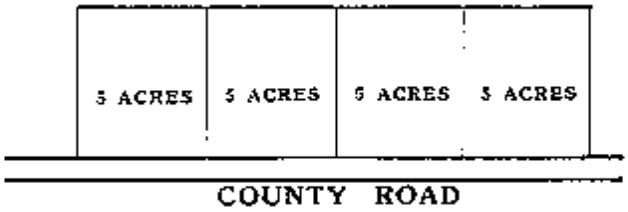
GRADE AT INTERSECTION



THIS IS A SUBDIVISION BECAUSE ONE LOT IS LESS THAN FIVE (5) ACRES.

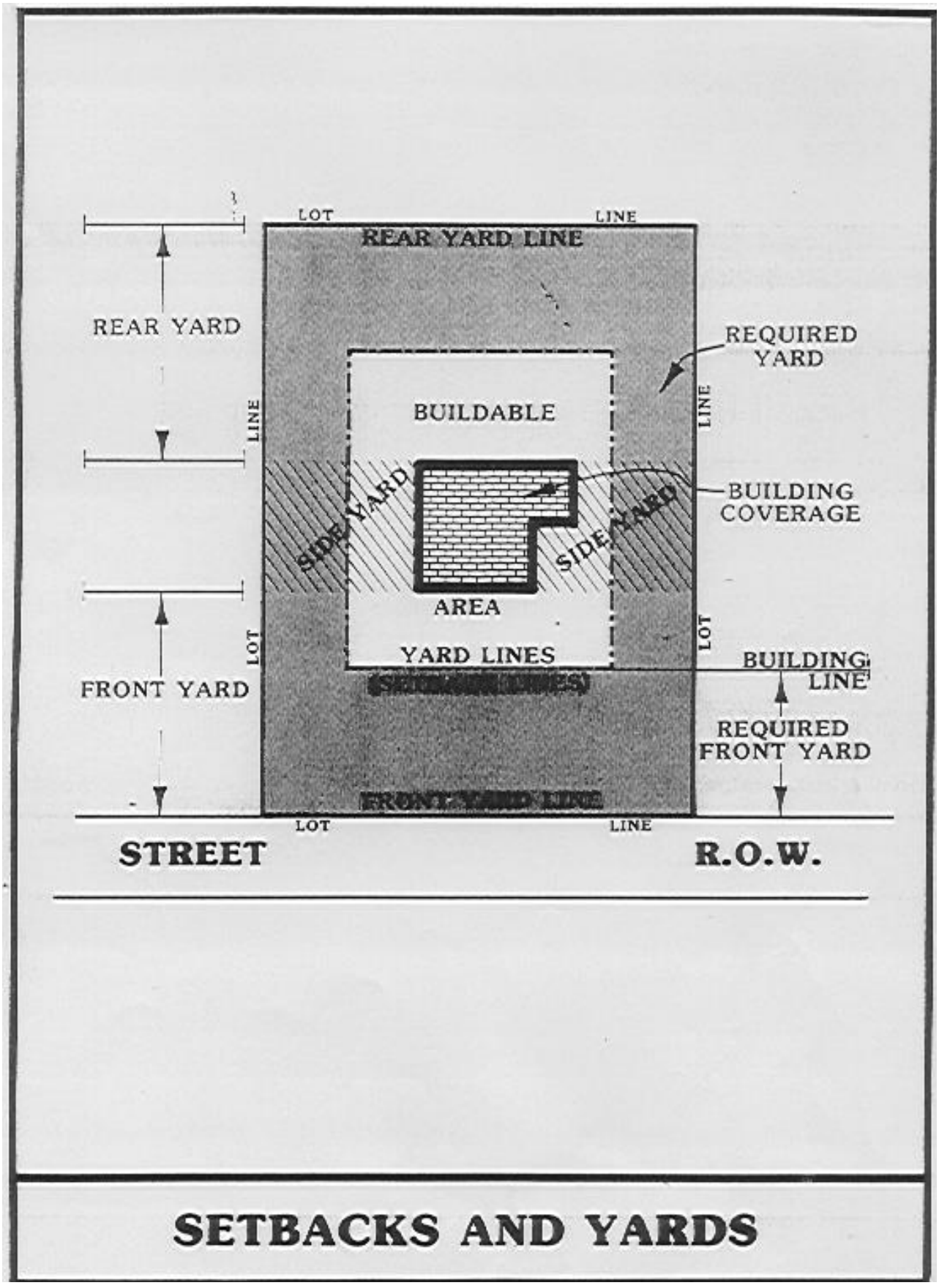


THIS IS A SUBDIVISION BECAUSE A NEW ROAD IS NEEDED FOR ACCESS.



THIS IS NOT A SUBDIVISON BECAUSE ALL LOTS ARE FIVE (5) ACRES AND NO NEW ROADS OR PUBLIC UTILITIES ARE REQUIRED

WHAT IS A SUBDIVISION ?



SETBACKS AND YARDS

ARTICLE 3

DESIGN REQUIREMENTS FOR SUBDIVISIONS

Section 3.01. Suitability of the Land. The planning commission shall not approve the subdivision of the land if, from adequate investigations conducted by all public agencies concerned, it has been determined that in the best interest of the public the site is not suitable for platting and development purposes of the kind proposed.

Land which is subject to flooding by the 100-year Flood, shall not be platted for residential occupancy or building sites unless such land is shown to be outside of the floodway of the river or stream causing the flooding. Fill may not be used to raise land within the floodway. However, fill may be used outside of the floodway providing that the following requirements are satisfied and further providing that any fill shall extend twenty-five (25) feet beyond the limits of any structure erected thereon.

Each lot in a subdivision shall contain a flood-free building site outside of the limits of any existing easement or the building setback lines as required by these regulations. The finished floor elevation for a concrete slab on grade type of structure or the bottom of the floor joist for a crawl space type of structure shall have a minimum elevation of one (1) foot above the defined elevation for a flood of 100-year frequency (the 100-year Flood), or three (3) feet above adjacent grade in an undefined Zone A (see flood zone resolution).

Since Bradley County is participating in the National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA), the authority for establishing the elevations of the 100-year Flood shall be FEMA and their contractors. In the event the subdivision is not in an area for which a study has been done, a comprehensive flood study will be required by a professional engineer licensed to practice in Tennessee.

Section 3.02. Name of Subdivision. The name of the subdivision must have the approval of the planning commission. The name shall not duplicate or closely approximate the name of an existing subdivision.

Section 3.03. Access to Subdivision. Access to every subdivision shall be provided over a public road maintained by a governmental unit; however, the planning commission may approve a private road from a subdivision to a public street or road which meets the standards in the appendix.

Section 3.04. Minor Subdivisions. The only distinctions between major and minor subdivisions recognized in these regulations are the following:

A. In order to be considered a minor subdivision, the tract or parcel of land to be subdivided shall have the required access to publicly-maintained road and that there are no changes to or required in existing streets, no new streets or access easements; no excavation, grading or physical development is needed and the property is adequately provided for by existing community facilities so no extensions of water, sewer or gas lines are required.

B. A two (2) lot subdivision may be approved by staff provided it meets the criteria shown above for a minor subdivision and the request for approval is as required in Section 7.08.

C. The planning commission may waive the preliminary plat for a minor subdivision provided:

1. The plat does not exceed five (5) lots,
2. The site contains no unusual or extreme topographic features.

D. The Planning Commission may approve both the preliminary and final plat at the same meeting provided all platting requirements are met and:

1. The subdivision does not involve new road construction or additional utility installations.

2. The subdivision includes only a new private road or waterline extension and the subdivision has six (6) or less lots.

E. Lots which are less than five (5) acres shall be surveyed and platted. Any lot, part of said subdivision, over five (5) acres, may be shown as a sketch on the plat.

Two-lot plats may be submitted on paper of a type acceptable to the County Register. Sheet size shall be a minimum of 11" x 17" from the trim lines plus a two (2) inch binding edge along the left side. The County Register requires a 2”x3” square in the upper right corner for recording purposes.

Section 3.05. Large-scale Development. The requirements of these regulations may be further modified in the case of large-scale community or neighborhood units, such as office complexes, industrial parks, housing projects, mobile home parks, or shopping centers which are not subdivided into customary lots, blocks and roads. Plans for all such developments along with all TDEC required permits shall be presented to the planning commission for review and approval prior to the commencement of construction and shall include the following information:

1. The actual shape, location, and dimensions of the lot to be built upon.

2. The shape, size, and location of all buildings or other structures to be erected, altered, or moved and of buildings or other structures already on the lot and the elevation of the building site.

3. The existing and intended use of all such buildings or other structures, upon it, including the number of units the building is intended to accommodate.

4. The size and location of all yards and open areas required by these regulations.

5. The dimension and location of all public water and sewer lines from which the property is to be served.

6. The location and approximate dimension of all points of access to a public street or road.

7. Such other information concerning the lot or adjoining lots as may be essential for determining whether the provisions of this regulations are being observed.

The following information shall be included in the site plan:

1. General Location Sketch Map at a scale not smaller than 1" = 2,000' showing:

a. The approximate boundaries of the site.

b. External (public access streets or roads in relation to the site).

c. Surrounding development (i.e., general residential, commercial, and industrial areas) within the general vicinity of the site.

d. Any public water and sewer systems in relation to site.

2. Site plan drawn at a scale no more than 1" = 50' showing:

a. The proposed title of the project, name of owner or owners of the land, the name of the engineer, architect, designer, developer, and planners.

b. The north point, scale and date.

c. Existing zoning, zoning boundaries and proposed zoning where applicable.

d. The actual shape, location, and dimensions of the lot.

e. The shape, size, and location of all buildings or other structures already on the lot.

f. The existing and intended use of the lot and of such structures upon it, including; for residential activities, the number of dwelling units the buildings are intended to accommodate.

g. Topographic features both existing and proposed, with contours at a vertical, interval no greater than five (5) feet.

h. Location of all driveways and entrances.

i. Location of all accessory off-street parking areas to include a plan showing design and layout of such parking facilities where five (5) or more accessory off-street parking spaces are to be provided. (Dimensions shall be shown.)

j. Location of all accessory off-street loading berths.

k. Location of open space.

l. Proposed ground coverage, floor area, and building heights.

m. Position of fences and walls to be utilized for screening (materials specified).

n. Position of screen planting (type of planting specified).

o. Proposed means of storm water drainage, including all drainage ways and facilities; a separate drainage plan may be required.

p. Location of all easements and rights-of-way.

q. Location of areas subject to flooding.

r. Location and size of all utilities including all fire hydrants.

s. Location, type, and size of proposed signs.

t. Where appropriate, location with respect to each other and to lot lines, number of floors, floor area and approximately height of all proposed buildings and structures; locations should be drawn to scale, but full dimensioning is not required.

u. Where appropriate, tabulations of number of acres in project, density, dwelling units by sizes and types, and other data required to determine compliance with this resolution.

v. A site that does not unduly interfere with through traffic. (Each industrial subdivision or area should utilize a single collector for all heavy traffic between the area and the general system of streets and roads. Minor industrial roads and individual industrial parcels shall be oriented at right angles with the collector and with adjacent railroads.)

w. An integrated parking area.

x. A buffer against any adverse effects on any present or future adjacent residences.

y. Roads in commercial and industrial developments may need to meet greater design standards as determined by the Bradley County Road Superintendent.

z. Lots for commercial and industrial purposes shall be adequate in size to provide service areas and off-street parking suitable for the type of use and development contemplated. Final plats of individual lots should be avoided unless an overall preliminary design of the land for commercial or industrial use has been approved.

3. The Planning Commission as the Reviewing Body May:

a. Approve the plan as submitted to the Planning Office and Road Department.

b. Disapprove the plan.

c. Approve the plan with conditions or recommendations for alterations.

4. If no "actual construction" has begun in the development within two (2) years from the date of approval of the site plan, said approval of the site plan shall lapse and be of no further effect.

Section 3.06. Lot Requirements. To provide minimum standards of space, light, air, access, and sanitation, the following lot size criteria are required:

Area- See the Bradley County Zoning Resolution

B. **Width-** See the Bradley County Zoning Resolution
Lots which are pie- or fan-shaped, the planning commission shall require a greater front setback to obtain the required width at the front setback line.

C. **Depth -** Excessive lot depth in relation to lot width should be avoided and may not exceed a 5:1 ratio. All lots shall be of sufficient depth to meet front and rear setbacks in addition to providing a sufficient building site and meeting any further depth requirements of the health department.

D. **Setbacks –** See the Bradley County Zoning Resolution

Section 3.07. Lot Access. Each lot shall have direct access to a publicly maintained road as specified in Section 9.05.

Section 3.08. Double or Reverse Frontage Lots. Double frontage lots should be avoided, except where essential to separate residential development from traffic arteries or to overcome specific disadvantages of topography and orientation. All double frontage lots shall meet the front setback from both streets.

Section 3.09. Flag Lots. A "Flag Lot" is a lot which, except for a narrow private access lane, does not front on or abut a publicly maintained road. These lots are used to provide a building site in the interior of a tract of land behind the lots which have full frontage on a publicly maintained road.

A. General Flag Lot Requirements:

1. The overall subdivision shall be designed so that the point where the access strip of the flag lot abuts the public road shall be safe for vehicular

ingress and egress as far as visibility and grade are concerned since, unlike the purchaser of a conventional lot, the owner of a flag lot will have no other choice as to driveway location. (The safety of this intersection is even more important if the flag lot is ever made into a subdivision housing a number of families.)

2. Within the portion of the flag lot which doesn't include the access strip, the various buildings' setbacks for front, side, and rear shall still apply and be measured from the boundaries of the portion excluding the access strip.

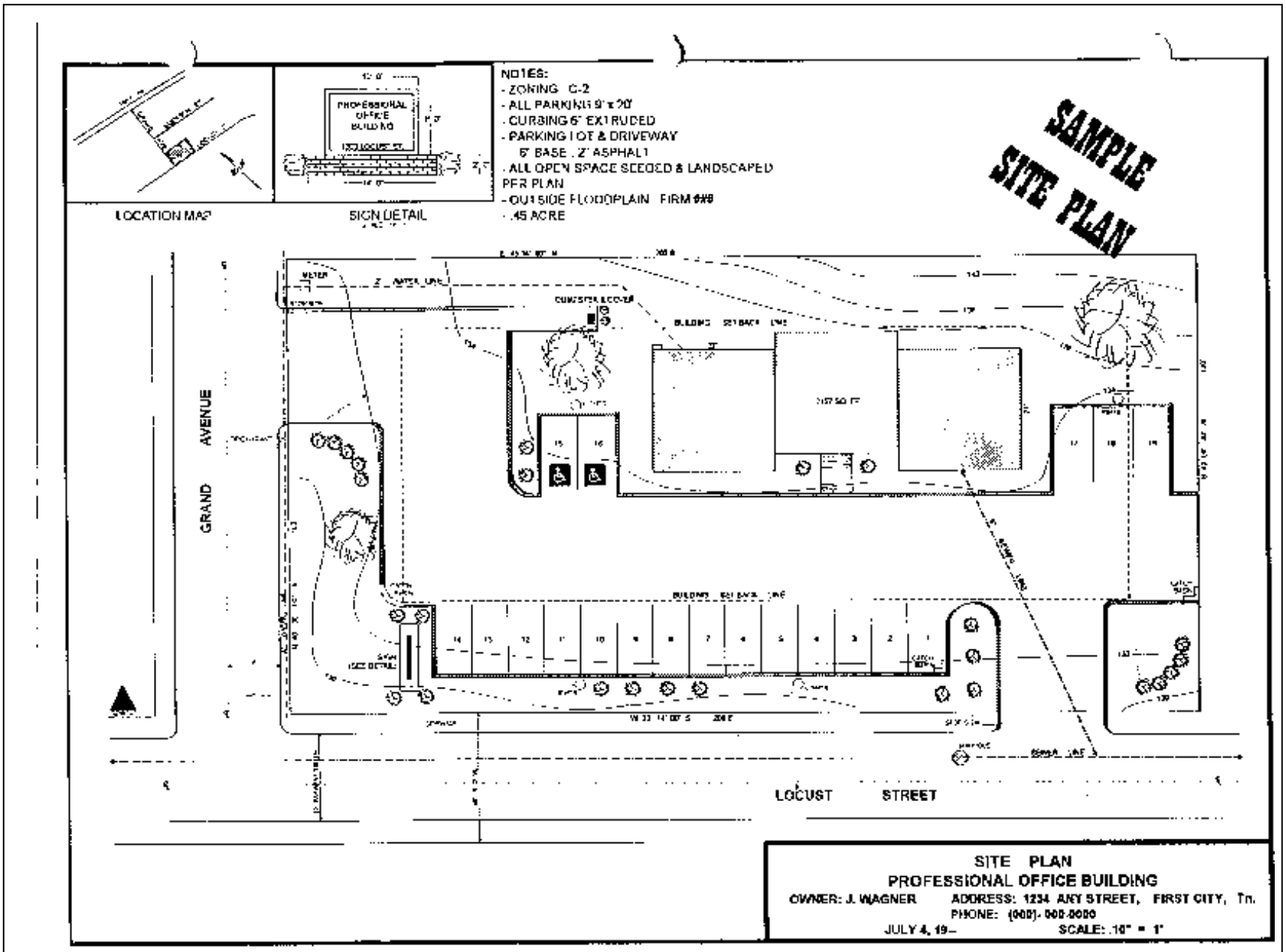
3. No more than two access strips shall be located side-by-side.

B. Sliding Scale of Access Width Requirements:

A sliding scale provides that larger flag lots have wider access strips. This will usually allow future subdivision development through re-subdivisions to occur. The Planning Commission may grant variances on flagstem width but will require a note on the plat saying that the lot cannot be further subdivided.

1. For flag lots of three (3) acres or less including the access strip, the access strip shall be a minimum of twenty (25) feet in width.

2. For flag lots of over three (3) acres including the access strip, the access strip shall be a minimum of fifty (50) feet in width.


LOCATION MAP
SIGN DETAIL
NOTES:
- ZONING C-2
- ALL PARKING 9' x 20'
- CURBING 6" EXTRUDED
- PARKING LOT & DRIVEWAY
6" BASE . 2" ASPHALT
- ALL OPEN SPACE SEEDED & LANDSCAPED PER PLAN
- OUTSIDE FLOODPLAIN FIRM #XX
- .45 ACRE
SAMPLE SITE PLAN
GRAND AVENUE
LOCUST STREET
SITE PLAN
PROFESSIONAL OFFICE BUILDING
OWNER: J. WAGNER
ADDRESS: 1234 ANY STREET, FIRST CITY, Tn.
PHONE: (000)- 000-0000
JULY 4, 19--
SCALE: .16" = 1'

TYPES OF LOTS

ARTICLE 4

DESIGN REQUIREMENTS FOR ROADS

Section 4.01. Conformance to Adopted Major Road Map. All roads and other features of the Major Road Plan of Bradley County, Tennessee, shall be platted by the Subdivider in the location and to the dimensions, if any, indicated on the Major Road Map adopted by the planning commission.

Section 4.02. Road Connections.

A. Where proposed roads intersect existing roads, the developer must make the connection at his expense and meet all road design requirements set forth in these regulations.

B. Sufficient access streets to adjoining properties shall be provided within subdivisions to permit harmonious development of the area.

Section 4.03. Flood Requirements for Roads and Drainage Systems. The planning commission shall require centerline profiles and elevations of roads in areas subject to flood, as defined in these regulations. Fill may be used for roads provided such fill does not unduly increase flood heights;any areas filled must be submitted to FEMA per the flood zone resolution. The minimum road elevation shall be no lower than two (2) feet below the elevation for a flood of 100-year frequency of occurrence. Drainage openings shall be designed so they do not restrict the flow of water and unduly increase flood heights.

Section 4.04. Road Names. The road names shall require the approval of the planning commission. Staff shall check proposed names against a master list to see that they are significantly different from existing names so that confusion will not arise when sending emergency 911 vehicles to addresses on those roads. Street numbers (address) will be assigned to every lot in a subdivision.

Section 4.05. Restriction of Access. When a tract fronts on an arterial highway, the planning commission may require such lots to be provided with frontage on a parallel, marginal access road or may require reverse frontage lots. Leaving a wide buffer of existing vegetation is recommended to lessen the effects of nearby heavy traffic.

Section 4.06. Reserve Strips. There shall be no reserve strips controlling access to roads.

Section 4.07 DELETED OCTOBER 2002.

Section 4.08. Drainage and Utility Easements. Easements shall only be provided along selected lot lines where deemed necessary by Cleveland Utilities or other applicable utility districts for utility lines and underground mains and cables. When the easements follow lot lines, the easement width can be divided between adjacent lots. Easements of the same or greater width shall be required across lots where necessary for the extension of existing or planned utilities.

Where a subdivision is traversed by a water course, drainage way, channel or stream, there shall be provided a storm water or drainage easement of adequate width. Adequate widths are determined as follows:

A. 20’ drainage and utility easements on lot lines abutting public roads.

B. 10’ drainage and utility easements on lot lines forming the outer boundaries of the subdivision.

Section 4.09. Road Right-of-Way Widths and Road Pavement Widths.

A. The right-of-way width shall be the distance across a road from property line to property line.

B. Road pavement widths are measured from inside of curb to inside of curb. These widths are considered the minimum necessary to accommodate modern traffic. All arterials and collectors are designed to be high-volume traffic movers. At no time should parking be allowed along arterials or collectors; however in the case of local roads, street parking is allowable where a width of 8 feet over and above the standard pavement width is provided for each parking lane.

C. Where 50 or more lots must be accessed by one subdivision street, that street shall be deemed a minor collector or higher. The minimum right-of-way for a minor collector is 50 feet, minimum pavement width shall be 24 feet wide inside the curbs. Collector or higher streets shall meet the standards of Section 6.06.C or higher as may be approved by the Road Superintendent.

TABLE OF REQUIRED MINIMUM ROAD RIGHTS-OF-WAY AND PAVEMENT WIDTHS IN FEET

ROAD TYPE[1]	VEHICLES PER DAY [2]	RIGHT-OF WAY (feet)	PAVEMENT (feet)
Major Arterial [3]	5,000 +	120	2-24 (2 lane divided hwy.) 60 (5 lane)
Minor Arterial	2 - 5,000	80	48 - 60
Major Collector	1 - 2,000	70	38 (3 lane)
Minor Collector	250 - 1,000	50	24
Local Roads [4]	250 (-)	50	22
Loop or Crescent Roads [5/6] Cul-de-Sacs **less** than 1,000 feet in length	250 (-)	40	20
Loop or Crescent Roads Cul-de-Sacs **greater** than 1,000 feet in length	250 (-)	50	22

Notes to Table:

1. See Bradley County "Major Road Map" for roads designated as arterials or collectors, provided, however, the Bradley County Regional Planning Commission may designate roads or segments of roads as arterials or collectors based on traffic counts or for new developments, potential traffic volume.

2. Vehicles per day will be from TDOT traffic counts, Bradley County traffic counts or for future development. For local streets in residential neighborhoods, use five vehicles per day per actual or potential dwelling unit.

3. A major arterial shall be either four lane divided or four lanes and a fifth center turning lane.

4. Local roads shall include marginal access roads and loop roads, which are one thousand (1,000) feet or more in length, or which connect two different roads.

5. DELETED OCTOBER 2002

6. Cul-de-sacs (permanent or temporary) shall be provided at the dead end with a turnaround area designed according to the illustrations in these regulations. A "T" or "Y" turn-around shall be allowed only if the BCRPC feels that the amount of traffic to be served will not warrant the more efficient circular turnaround. An island of vegetation may be permitted in cul-de-sac turnarounds provided provisions are made for its maintenance and provided the following dimensions are followed:

MAXIMUM RADIUS FOR PLANTED MEDIAN ISLAND	**18' (36' DIA.)**
MINIMUM PAVEMENT WIDTH SURROUNDING ISLAND	**22'**
MINIMUM WIDTH OF R.O.W. BEYOND EDGE OF PAVEMENT	**10'**
MINIMUM R.O.W. RADIUS (Pavement radius 40 feet or 80 feet diameter inside curbs)	**50' (100' DIA.)**
MINIMUM R.O.W RADIUS FOR ROADS LESS THAN 1,000 Feet (Pavement radius 30 feet or 60 feet diameter inside curbs)	**40' (80' DiA.)**

Section 4.10. Additional Width on Existing Roads. Subdivisions that adjoin existing roads shall dedicate additional right-of-way to meet the minimum road width requirements.

A. The entire right-of-way shall be dedicated where any part of the subdivision is on both sides of the existing road; and

B. Where the subdivision is located on only one side of an existing road, the amount of right-of-way to be dedicated is as follows:

1. If the land across the roadway from the proposed subdivision has not been subdivided or developed, the Subdivider is only required to dedicate one-half of the required right-of-way, measured from the centerline of the existing roadway.

2. If the land across the roadway has been subdivided or developed, the Subdivider is required to provide enough additional right-of-way on his side of the roadway to bring the total right-of-way to the required width. (In no case shall the right-of-way be less than fifty (50) feet.)

C. In cases where rights-of-way in excess of fifty (50) feet are required, additional widths shall be reserved, and when used this right-of-way may be donated to the county or just compensation therefore shall be paid by the condemning authority.

D. In cases where the number of lots in a subdivision exceeds, or shall exceed twenty-five (25) (cumulative) the developer shall provide a deceleration lane plus taper or a left turn lane on the existing county road and shall dedicate additional right-of-way when needed to

meet deceleration lane or turn lane requirements. The Road Superintendent may require a deceleration lane or turn lane on subdivisions less than twenty-five (25) lots for sight distance, high traffic or other safety purposes. The deceleration lane shall be approximately one hundred (100) feet long at a minimum plus the taper fifty (50) feet long, the paved surface eleven (11) feet wide, provided there is sufficient frontage. This additional right-of-way and road shall be dedicated to and accepted by the County in the usual manner.

Section 4.11. Road Grades. Road grade in subdivisions should be no more than fifteen (15) percent where possible. Road grade can exceed fifteen (15) percent to up to eighteen (18) percent in areas that cannot be designed less than fifteen (15) percent grade for no more than four hundred (400) feet using a D mix utilizing granite for skid resistance. Under no circumstances shall a road grade be greater than eighteen (18) percent in any subdivision.

Section 4.12. Grades Approaching Intersections. Road grades approaching intersections shall not exceed five (5) percent for a distance not less than that shown on the following table, measured back from the right-of-way of the intersecting road:

When Roads less than Arterials or Collectors intersect with Arterials or Collectors (see illustration). ..... **40 Feet**

When Roads less than Arterials or Collectors intersect with other non-arterial or non-collectors. ..... **30 Feet**

Section 4.13. Vertical Curves. Every change in grade shall be connected by a vertical curve designed and constructed in accordance with the standards in the latest edition of the American Association of State Highway and Transportation Officials' Policy on Geometric Design of Highways and Streets. This book also provides guidelines for safely combining vertical and horizontal curves in the same road section.

Section 4.14. Road Profiles. Profiles of roads showing natural and finished grades drawn to a scale of not less than 1" = 100' horizontally and 1" = 10' vertically shall be required on all new roads proposed.

Section 4.15 Horizontal Curves. Where a deflection angle occurs in the horizontal alignment of a road, the road shall have a centerline radius of not less than the following:

A. Arterials ..... **300 Feet**

B. Collectors ..... **200 Feet**

C. Local Roads (including parallel, access roads, loops, and temporary cul-de-sacs ..... **100 Feet**

D. Permanent Cul-de-sacs ..... **100 Feet**

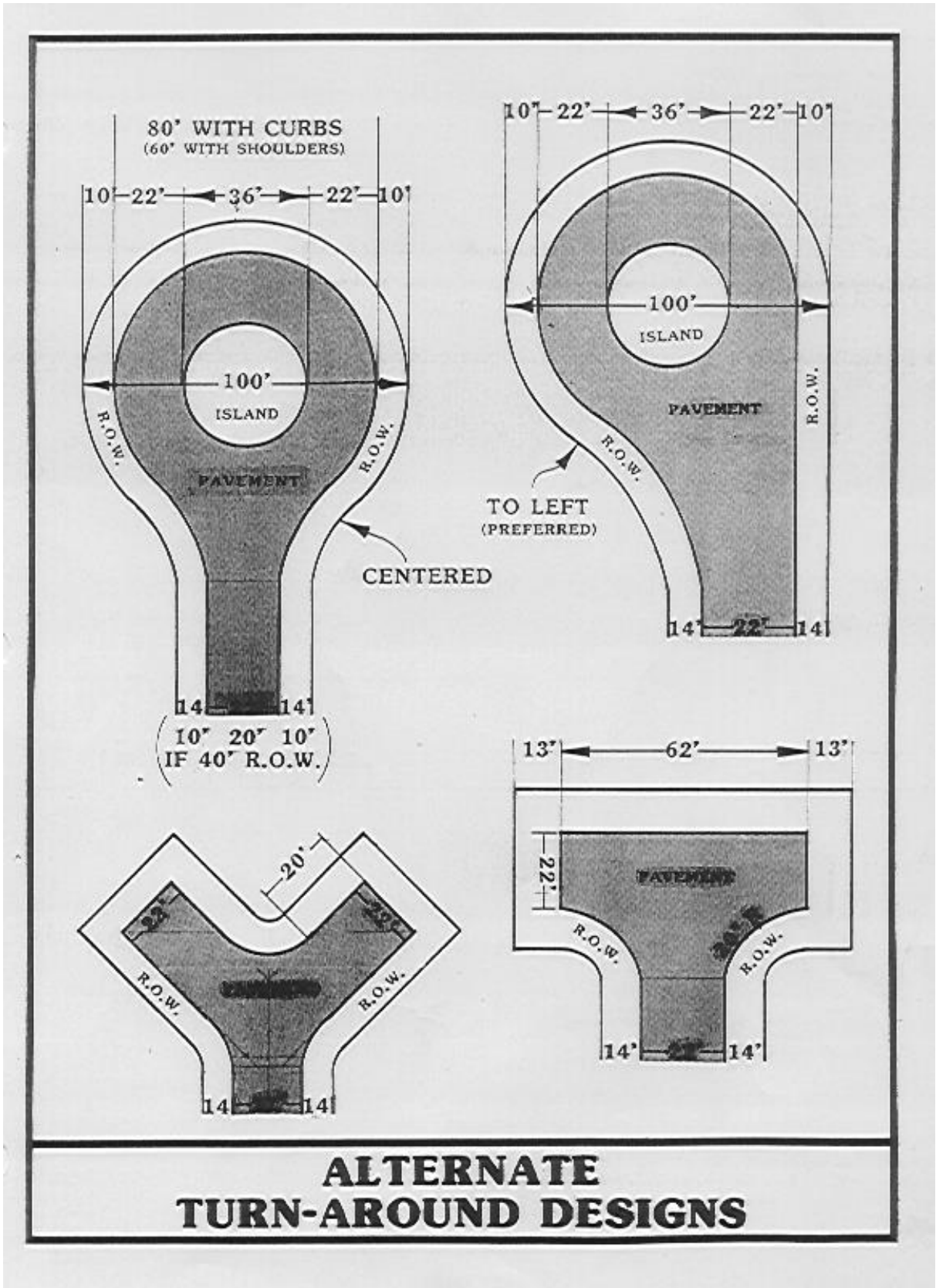
Section 4.16. Intersections. Road intersections shall be as nearly at right angles as possible, and no intersection shall form an angle of less than seventy-five (75) degrees. Sight distance shall meet or exceed the requirements as set in the AASHTO "A Policy on Geometric Design of Highways and Streets".

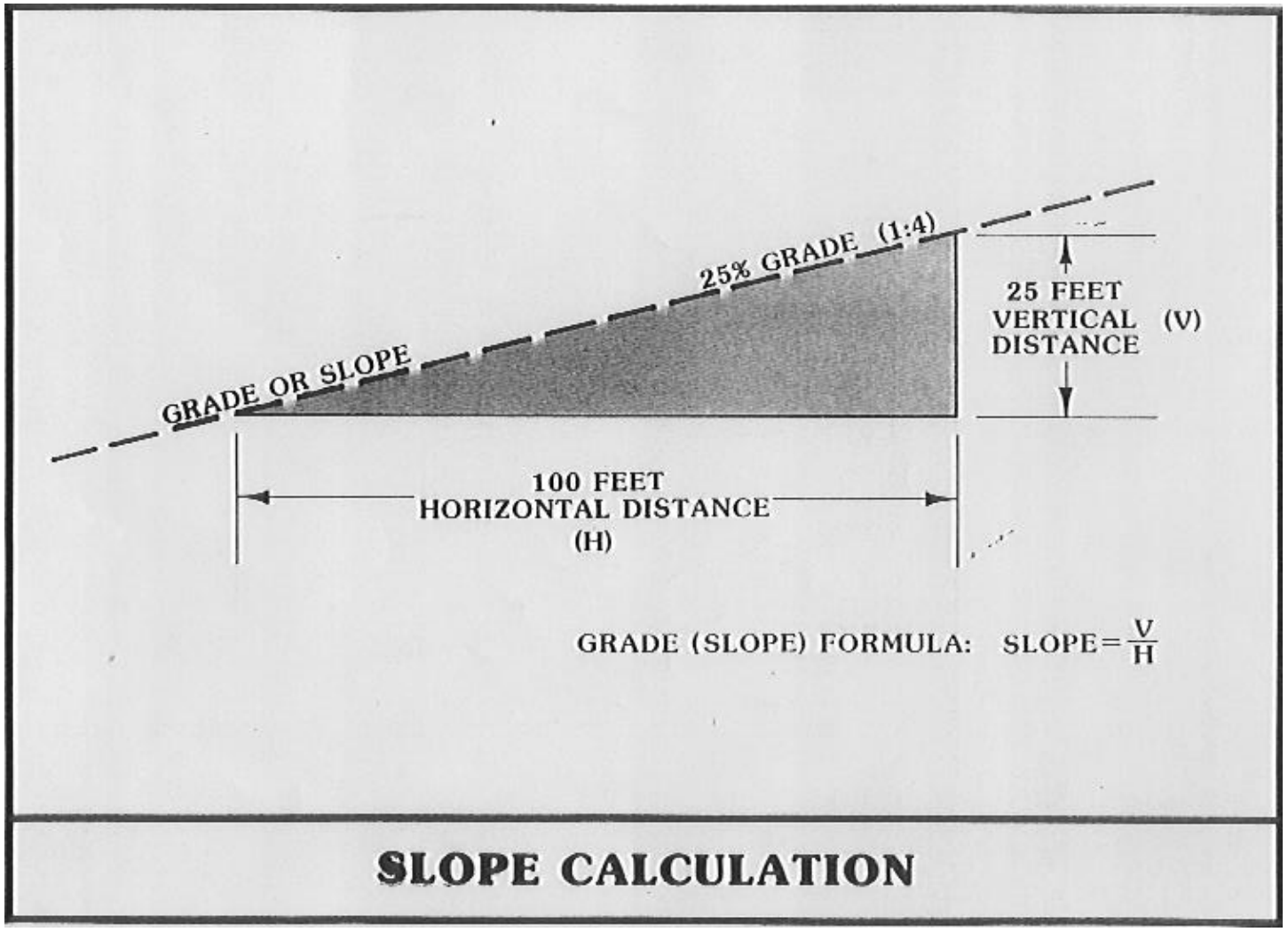
Curb radii at road intersections shall not be less than twenty (20) feet, and where the angle of a road intersection is less than seventy-five (75) degrees, the planning commission may require a greater curb radius. Whenever necessary to permit the construction of a curb having a desirable radius without curtailing

a future sidewalk at a road corner to less than normal width, the property line at such road corner shall be rounded or otherwise setback sufficiently to permit such construction.

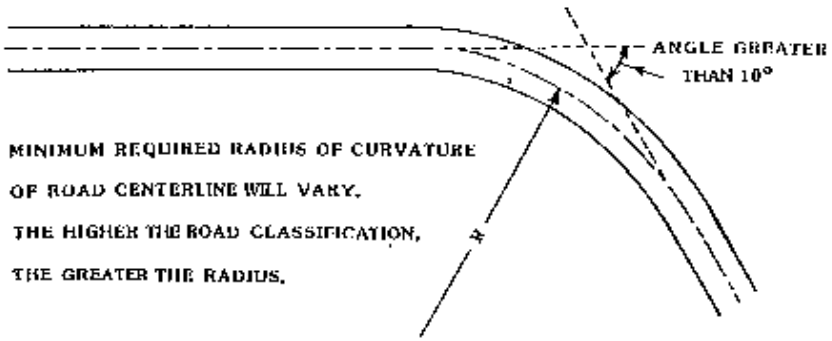
Section 4.17. Road Jogs. For improved traffic safety, road or street jogs with centerline offsets of less than one hundred fifty (150) feet shall not be allowed. The l50 foot separation shall also apply to jogs created between a new subdivision road and an existing road.

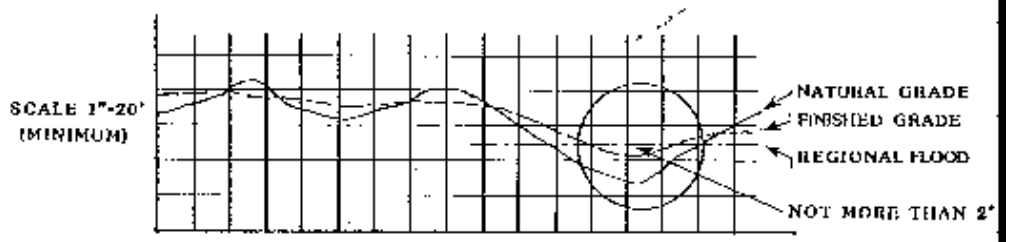
Section 4.18. Cul-De-Sac Road Grades. Cul-de-sac road grades shall be no more than eight (8) percent grade front to back. Cul-de-sac road grades shall be no more than four (4) percent side to side.


80' WITH CURBS
(60' WITH SHOULDERS)
10' 22' 36' 22' 10'
100'
ISLAND
PAVEMENT
R.O.W.
R.O.W.
CENTERED
14' 14'
10' 20' 10'
IF 40' R.O.W.
10' 22' 36' 22' 10'
100'
ISLAND
PAVEMENT
R.O.W.
R.O.W.
TO LEFT
(PREFERRED)
14' 22' 14'
20'
22'
22'
R.O.W.
R.O.W.
14' 14'
13' 62' 13'
22'
PAVEMENT
R.O.W.
R.O.W.
14' 14'
ALTERNATE
TURN-AROUND DESIGNS



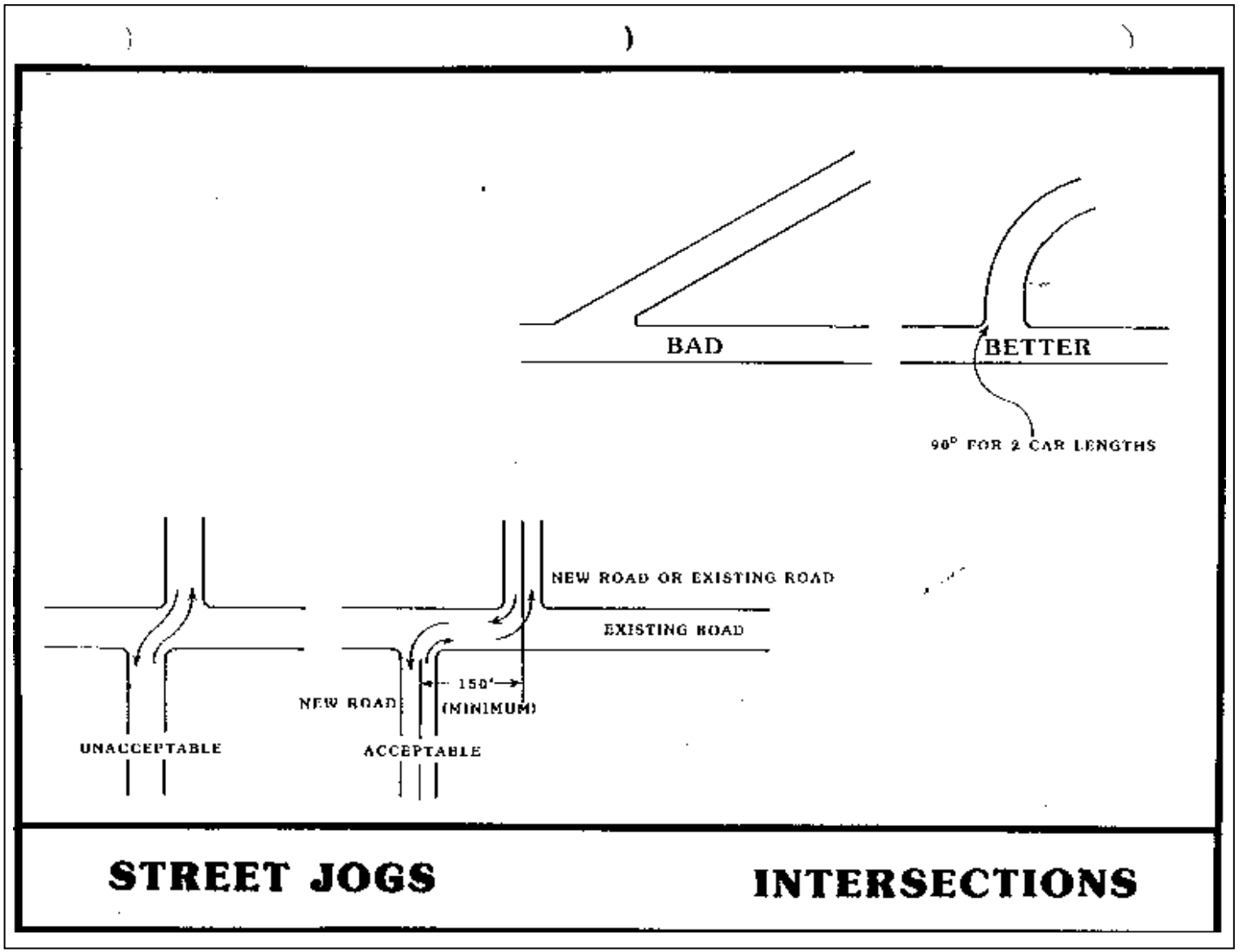
SLOPE CALCULATION





HORIZONTAL CURVE

STREET PROFILE


BAD
BETTER
90° FOR 2 CAR LENGTHS
NEW ROAD OR EXISTING ROAD
EXISTING ROAD
150'
(MINIMUM)
NEW ROAD
UNACCEPTABLE
ACCEPTABLE
STREET JOGS
INTERSECTIONS

ARTICLE 5

PRELIMINARY PLAT REQUIREMENTS

Section 5.01. Pre-application Review. Whenever a subdivision of a tract of land within the Bradley County Planning Region is proposed, the Subdivider is urged to consult early and informally with the planning commission staff. The Subdivider may submit sketch plans and data showing existing conditions within the site and in its vicinity and the proposed layout and development of the subdivision. No fee shall be charged for the pre-application review and no formal application shall be required.

> ***NOTES: (1) The purpose of the pre-application review is to afford the Subdivider an opportunity to avail himself of the advice and assistance of the planning commission staff in order to facilitate the subsequent preparation and approval of plats.***
>
> ***(2) The various plat reviews required by these regulations may be properly made by the planning commission staff, although copies of the plat will be sent to BCRPC members. It would be unnecessary for the entire planning commission membership to review a proposed land subdivision in detail except in cases of conflict or unusual and difficult problems. Approval or disapproval in every case must be by action of the commission. This note applies only to reviews.***

Section 5.02. Application for Preliminary Plat Approval and Staff Review. Following the optional pre-application review of a proposed subdivision, the Subdivider, or his agent, shall notify the Bradley County Planning and Inspections Office at least twenty-one (21) calendar days prior to the next regular meeting of the planning commission of what it is he wishes to have on the AGENDA. Then, three (3) copies of the preliminary plat shall be submitted not less than twenty-one (21) calendar days prior to the meeting. Three (3) copies of corrected plats shall be submitted seven (7) calendar days prior to the meeting.

The staff of the Planning and Inspections Office shall "log-in" the plat, assess the platting fee (see Section 5.03) and tell the developer the date of the meeting at which the plat will be considered. (The next regular meeting unless the plat is late.) If a meeting date is changed, staff shall notify each developer with a plat pending.

NOTE: See section 7.08 for procedure for approval of two-tract developments without new roads or public water or public sewerage.

After reviewing the plat, staff shall contact the developer or surveyor to note obvious deficiencies, which can be corrected before the meeting. The planner will review and return recommendations for any changes on the plat to the developer or surveyor. If the deficiencies are not corrected and if a reason is not given for the deficiencies not being corrected, the corrected preliminary plat submitted seven (7) days ahead of the next meeting will not be placed on the agenda for the next regular meeting. Staff shall also study the appropriate Bradley County Tax Maps to see the proposed subdivision in relation to surrounding developments, drainage, and road connections. Copies of the appropriate tax map or maps also shall be provided by staff for planning commission viewing. Staff shall give their recommendation regarding the plat to the BCRPC prior to or at the meeting.

Five (5) copies of the preliminary plat and other documents are needed to provide a review and/or record copy for concerned or affected county offices or utilities.

The 5 copies left with the Bradley County Planning and Inspections Office shall be for the members of the BCRPC, all applicable utilities, the Department of Environment & Conservation, the Planning and

Inspections Office, and the Bradley County Road Superintendent. The Planning Office will distribute these as needed.

If the developer intends to have the services of the local natural gas company and the local cable television company, copies of the plat should also be sent to these concerns.

After preliminary approval, the developer is required to contact the Planning Office to set up a time for a pre-construction conference to be held before any work begins. The pre-construction conference will include the developer, the contractor, the Planner, the Bradley County Road Department and all applicable utility companies.

Section 5.03. Platting Fee. To defray part of the expense of subdivision plat review and the required on-site inspections, the Bradley County Commission has adopted the following platting fee schedule based on the number of lots in the proposed subdivision. Since road construction requires more frequent inspection, a higher fee is assessed for lots fronting new roads. The fee shall be paid to the Bradley County Office of Planning and Inspections at the time the Preliminary Plat is submitted to staff for their review.

$2.50 for each proposed lot having access on an existing publicly maintained road.

$5.00 for each lot having access only on a proposed public or private subdivision road.

The minimum platting fee shall be $25.00 whenever the formula results in a lesser amount.

Example: ***If a proposed 20-lot subdivision had 8 lots fronting an existing county road and 12 lots fronting a proposed road, the total platting fee would be $80 and would defray the staff's cost of reviewing both the preliminary and final plats.***

8	**x**	**$2.50**	**=**	**$20.00**
12	**x**	**$5.00**	**=**	**$60.00**
TOTAL				**$80.00**

Section 5.04. Preliminary Plat Specifications.

5.04.01. Scale. The preliminary plat shall be clearly and legibly drawn at a scale not smaller than two hundred (200) feet to one inch.

5.04.02. Ground Elevations. Contour lines shall be drawn and labeled on the plat with a line of a maximum of five (5) feet change in elevation; elevations shown shall be based on Mean Sea Level (MSL). The method of obtaining the contour lines (field survey, aerial survey, U.S.G.S. Quad Sheet, etc.,) shall be stated on the preliminary plat. Contours shall not be shown on the final plat.

When the land to be subdivided is so flat that there is not a five foot contour line crossing the site, then the elevation of each corner of the site shall be shown on the plat to indicate the direction of drainage.

5.04.03. Information to be Provided on Preliminary Plat. The preliminary plat shall contain the following information:

a. Name of Subdivision which must be different from existing subdivisions in Bradley County and its municipalities,

b. Acreage of proposed subdivision for which preliminary approval is sought, given to nearest 1/10th acre,

c. Name, address, and phone number of owner, Subdivider (if different from owner), and surveyor,

d. North arrow, graphic (bar) scale, and date of drawing,

e. Vicinity map prepared from county tax maps and showing location of subdivision in relation to nearby county roads with road names indicated,

f. Boundary lines of the tract to be subdivided,

g. Existing roads with names, water courses with names, and culverts with size and type, on the tract or within two hundred (200) feet of the tract,

h. Proposed design including roads with proposed road names, lot lines with approximate dimensions, easements, land to be reserved or dedicated for public uses, and any land to be used for purposes other than residential use,

i. Lot numbers arranged consecutively regardless of the number of sections in the subdivision. (No block numbers shall be used),

j. All existing water and sewer lines within two hundred (200) feet of the subdivision shall be shown with line size and provider. (When connections to certain public utilities are not practical, any proposed individual water supply and/or sewage disposal system must be approved by the Tennessee Department of Environment and Conservation).

k. Minimum building setback lines, as provided for in the Bradley County Zoning Resolution, with a note indicating lots may require a greater setback to meet the minimum lot width standard as shown on the plat,

l. A road cross-section,

m. The limit of the 100-year flood and the boundary and elevation of the floodway, if any portion of the land being subdivided is subject to flood, the FIRM map and panel number ,as defined in these regulations, and,

n. Contour lines as required in Section 5.04.02.

o. Names of adjoining property owners and/or subdivisions for reference purposes.

p. Source of topographical lines/information.

q. Tax Map / Parcel Identification Number.

r. Notations concerning drainage and utility easements.

s. Current zoning of the property.

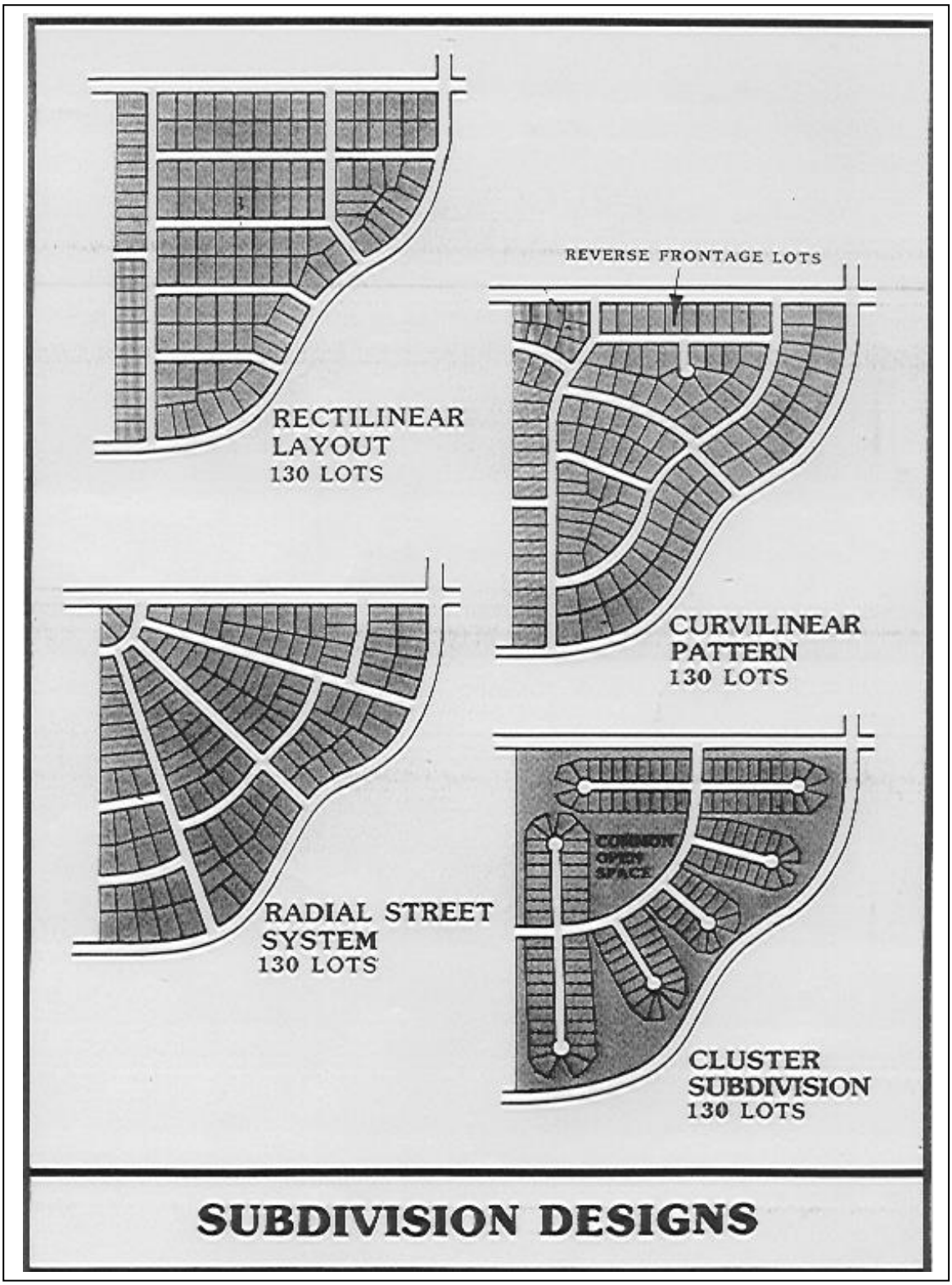
Section 5.05. Planning Commission Review of Preliminary Plat. The planning commission with staff assistance shall check the plat for conformance to these regulations and shall afford a hearing on the preliminary plat at one of their meetings. The planning commission may defer action on a plat or disapprove it if the developer is not present to explain questions that may arise.

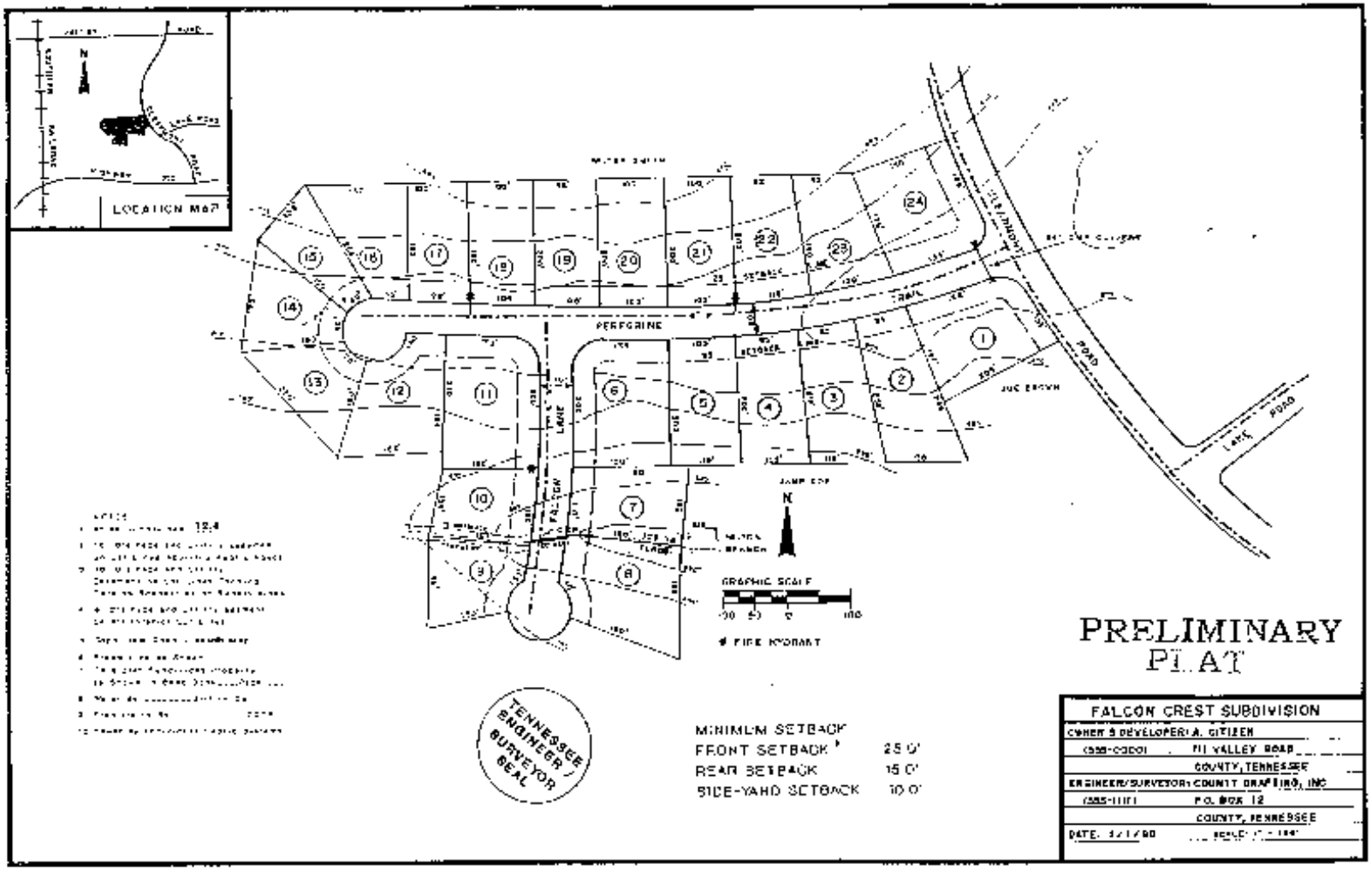
Thereafter, the planning commission shall give tentative approval or disapproval of the preliminary plat. A notation of the action shall be made in the official minutes of the meeting. Two (2) copies of a list containing the reasons for disapproval, if the preliminary plat is disapproved, shall be issued. One copy shall be returned to the Subdivider or his agent and one copy added to the records of the planning commission.

Tentative approval of a preliminary plat does not constitute approval of a final plat. It indicates only approval of the layout as a guide to the preparation of the final plat. Tentative approval shall expire and be null and void after a period of two years unless an extension of time is applied for by the Subdivider or his representative and approved by the planning commission.

If action or a preliminary plat is not taken by the planning commission within sixty (60) days of the date of submittal, the preliminary plat shall be considered approved and a certificate of approval shall be issued on demand. However, the applicant for approval may waive this requirement and consent to an extension of time.

Section 5.06. REMOVED October 2002.


REVERSE FRONTAGE LOTS
RECTILINEAR
LAYOUT
130 LOTS
CURVILINEAR
PATTERN
130 LOTS
RADIAL STREET
SYSTEM
130 LOTS
COMMON
OPEN
SPACE
CLUSTER
SUBDIVISION
130 LOTS
SUBDIVISION DESIGNS


LOCATION MAP
PEREGRINE
FALCON LANE
JUG BROWN
LAKE ROAD
GRAPHIC SCALE
FIRE HYDRANT
TENNESSEE ENGINEER / SURVEYOR SEAL
MINIMUM SETBACK
FRONT SETBACK 25.0'
REAR SETBACK 15.0'
SIDE-YARD SETBACK 10.0'
PRELIMINARY
PLAT
FALCON CREST SUBDIVISION
OWNER & DEVELOPER: A. CITIZEN
(555-0000) PLEASANT VALLEY ROAD
COUNTY, TENNESSEE
ENGINEER/SURVEYOR: COUNTY DRAFTING, INC
(555-1111) P.O. BOX 12
COUNTY, TENNESSEE
DATE: 3/1/80

ARTICLE 6

SITE IMPROVEMENTS REQUIRED BEFORE FINAL PLAT APPROVAL

Prior to the approval of a final subdivision plat, an agreement shall be reached between the Subdivider or his agent and the County Government with regard to the installation of all road improvements and utility construction called for in the subdivision plat. The Subdivider shall be required to have installed at his expense the following improvements, which are minimums and additional requirements may be required by the Road Superintendent to overcome problem areas:

NOTE: The Subdivider at his expense, may contract with a private firm to install the necessary improvements.

Section 6.01. Compliance with Regulations of Tennessee Department of Transportation. All construction of or relating to roads shall comply with or exceed the existing regulations of the Tennessee Department of Transportation (TDOT) for the type of road being constructed. This includes having a proper "crown" for the road.

Section 6.02. Monuments.

A. So that the lot lines in the subdivision can be located, a minimum of two (2) concrete monuments, four (4) inches in diameter (or four (4) inches square) and thirty (30) inches long, with a flat top, shall be set in each phase on the rear lot line. Bradley County will provide the surveyor with two (2) brass disks to be placed in the concrete monuments to identify properly the location.

Note: Concrete monuments shall be set with reference to recognized geological marks, or by other acceptable surveying techniques.

B. All other lot corners shall be marked with iron pipes not less than one-half (1/2) inch in diameter and eighteen (18) inches long and driven so as to be one (1) inch above the finished grade.

C. New monuments and iron pipes shall have a cap or tag of non-corrosive material with the surveyor's registration number or company name attached or stamped as required by current "Tennessee Land Surveyor Laws and Regulations."

Section 6.03. Road Grading.

Width and Location. All streets, roads, and alleys shall be graded by the Subdivider to the required cross section & road profile. All roads on the proposed development must be field staked and profiled. If cross slopes within the limits of the proposed road right-of-way exceed fifteen (15) percent, cross sections must be furnished on 50 foot stations (and any other pertinent areas) to a distance of 50 feet to each side of the centerline. Deviation from the above will be allowed only for difficult topographic conditions, with the special approval of the planning commission. Where roads are constructed under or adjacent to existing electric transmission lines, the nearest edge of the roadway surface shall be a minimum of fifteen (15) feet from any transmission line structure or guy wire, and all grading for the road shall be done in a manner which will not disturb the transmission line structure or result in erosion endangering the structure. In the case of electric transmission lines, the clearance from the road to the nearest conductor shall meet the requirements of the National Electric Safety Code.

All subdivisions with proposed new roads shall be tied to state grid coordinates and elevations in order to relate to the County G.I.S. system.

A. **Preparation.** Before grading is started a gravel construction entrance and erosion control features must be installed. In addition, the entire right-of-way area shall be first cleared of all stumps, roots, brush, and other objectionable materials and all vegetation not approved for preservation.

B. **Cuts.** All tree stumps, boulders and other obstructions shall be removed to a depth of two (2) feet, or greater if required by the Road Superintendent or his/her designee, to reach a firm substratum below sub-grade. Rock, when encountered, shall be removed to the sub-grade; all topsoil shall be removed except where deemed not feasible. This provision applies to the roadway width, not necessarily to the entire right-of-way width. The finished cut shall meet a compaction rate of **98** percent Standard Proctor.

C. **Fill.** All suitable material from roadway cuts may be used in the construction of fills, approaches or at other places as needed. Unsuitable materials, including organic materials, soft clays, etc., shall be removed from the roadway. The fill shall be spread in layers not to exceed eight (8) inches loose and compacted by a sheep's foot roller. The filling of utility trenches and other places, not accessible to a roller, shall be mechanically tamped. All fill must meet a compaction rate of **98** percent Standard Proctor.

Any trench cut across an existing or proposed roadbed right-of-way shall be backfilled with compacted crusher run or flowable fill in any area that will be under the pavement section and shall extend two (2) feet outside the edge of the base width and then thoroughly tamped. All utilities placed in the right-of-way shall be back-filled with compacted crusher run or flowable fill compacted level with the adjacent sub-grade.

D. **Slope Specifications.** Cut and fill slopes shall not be steeper than two units horizontal to one unit vertical and erosion control measures shall be used, as needed, to prevent washing. No slopes shall be steeper than 2:1 unless authorized by the Road Superintendent or his/her designee who shall require additional erosion control measures.

Any slope greater than 3:1 will require additional stabilization measures such as: sod, geotextile fabrics, riprap, etc. to the right of way limits. Slopes greater that 3:1 may require guardrail and end treatments as determined by the Road Superintendent or his/her designee.

E. **Compaction Tests.** Compaction tests by a certified laboratory shall be required for all roads unless in the opinion of the Road Superintendent or his/her designee the tests are unnecessary for compliance with soil stability requirements. A minimum of one density test for each 1000 cubic yards of material placed per layer shall be required. The Road Superintendent or his/her designee may specify other frequencies as appropriate to the job required. A copy of all test results shall be provided to the Bradley County Road Department and approved before additional work is continued. The Road Department will contract with the testing company and will invoice the Subdivider at actual cost of the testing. The final plat will not be signed, and bond will not be released, unless all invoices are paid in full.

F. **Survey Prior to Paving.** A survey shall be completed prior to paving after grading of roads. The survey shall be sent to the design engineer for review to ensure the road is being built to the design specifications. Once the design engineer has reviewed the survey a letter shall be sent to the Road Superintendent confirming the road is being built to design specifications. Once confirmation is made of receipt of this letter is made by the Road Superintendent, road construction can proceed.

G. **Mandatory Additional Preconstruction Meeting Prior to Paving.** The developer and their contractor will be required to have an additional preconstruction meeting with the Road Department and Planning Department after grading is finished and before any paving is done. This preconstruction meeting will be mandatory for road approvals. Road standards and inspection requirements will be discussed prior to paving to ensure quality of roads.

Section 6.04. Installation of Utilities. After grading is completed, inspected, and approved, and before any base is applied, all underground utilities and service connections shall be installed completely and approved throughout the subdivision.

Section 6.05. Pavement Standard Required for Each Road Type. The pavement required for various road types is stated below. In the case of collector roads, the pavement requirements shall be determined by the Road Superintendent.

A. Hot-mix (Class A) pavement or concrete is allowed for any type of subdivision road.

B. Gravel (Class C) surface is allowed only for private roads serving less than seven (7) lots (see Appendix).

Each of the preceding shall be constructed according to the specifications given in the following sections. All grading, utility installation and placement of base and asphalticic materials shall be done by a Contractor licensed in the State of Tennessee and insured as per state regulations unless the improvements are made by the registered land owner. All asphalt plants shall be State approved. All equipment and materials to be used on project must meet the specifications as specified in the latest edition of the Tennessee Department of Transportation's Standard Specifications for Road and Bridge Construction.

Section 6.06. Hot-Mix Pavement (Class "A" Road). Hot-mix roads (also known as "asphaltic concrete") shall be constructed to the following specifications:

A. Residential

1. Base: Mineral aggregate type "A", Grading "D" crushed stone base material shall be uniformly placed across the entire satisfactorily prepared road bed and roadway shoulders, if present, to a final compaction depth of not less than five (5) inches vertical. Developer/contractor shall furnish the source and Standard Proctor for the material used. All base material shall meet a compaction rate of 95 percent Standard Proctor and plus or minus two (2) percent on the optimum moisture content as determined by a certified testing laboratory. All testing must be completed with passing results before the binder course is placed.

2. Binder Course: After the crushed stone base material is fully set and bonded, bituminous material for prime coat shall be applied to the entire roadbed at a uniform rate of between 0.30 and 0.35 gallons per square yard horizontal measure. Bituminous plant mix base (Hot mix binder) Grading "B" mixture (TDOT spec 903.06) shall then be uniformly placed and compacted across the entire roadbed to a depth of not less than two (2) inches and a minimum density of two hundred and twenty (220) pounds per square yard. Developer/contractor shall furnish a copy of the mix design to be used prior to placement of the binder course. All testing must be completed with passing results before the surface course is placed.

3. Surface: Asphaltic concrete surface course (hot mix surfacing (Grade E) mixture (TDOT spec 903.11) shall then be uniformly placed and compacted across the entire roadbed to a depth not less than one (1) inches with a minimum density of 110 pounds per square yard. Developer/contractor shall furnish a copy of the mix design to be used prior to placement of the surface course.

4. Core drillings shall be made for hot-mix roads by the Bradley County Road Department after hot-mix application, and they shall be inspected against acceptable standards. Where the sample does not meet minimum standards, the developer shall also pay for all additional compaction tests or other lab tests to determine the pavement's character and strength. The average of all cores must have a compaction of at least ninety-two (92) percent with no core below ninety (90) percent compaction. The thickness of the layers of the core will also be measured.

B. Commercial: Construct as per requirements in Section 6.06 C., with the following exceptions:

1. Base: Eight (8") inches compacted mineral aggregate type "A, Grading "D" crushed stone base
2. Binder: Two and one-half (2 ½) inches compacted, hot mix binder, Grading "B" with a minimum density of 275 pounds per square yard.
3. Surface: One and one-half (1 ½) inches compacted hot-mix asphaltic concrete Type E with a minimum density of 165 Pounds per square yard.

C. Industrial or Heavy Commercial: Construct as per requirements in Section 6.06 C., with the following exceptions:

1. Base: Eight (8") inches compacted mineral aggregate type "A, Grading "D" crushed stone base
2. Binder: Three and one-half (3 ½) inches comapcted, hot mix binder, Grading "B" with a minimum density of 385 pounds per square yard.
3. Surface: One and one-half (1 ½) inches compacted hot-mix asphaltic concrete Type E with a minimum density of 165 pounds per square yard.

Weight tickets shall be made available for inspection/copying when the mix is delivered to the job-site. The developer is required to guarantee the material, products and workmanship relative to the asphalt roadway(s) as per following statement:

Subdivisions with Standard Test Results

_____, Developer, hereby guarantees the material, products and workmanship relative to the asphalt roadway(s) located within _____ Subdivision, to be free from defects for a period of one (1) year from the date that the asphalt topping is placed. Upon notification, Developer, shall promptly make all adjustments, repairs or replacements which arise out of defects of said roadway and become necessary during the guarantee period. The costs of all materials, parts, labor, supervision, and supplies required for replacement or repair of the roadway for correction of defects shall be paid by the developer. If within fourteen (14) days after Bradley County has notified developer of a defect, failure or abnormality in the roadway, and developer has not started to make the necessary repairs or adjustments, or if developer fails to complete the repairs or adjustments in a timely and satisfactory manner, it is understood and agreed that Bradley County is hereby authorized to make the repairs or adjustments or to order the work to be done by a third party, the costs of the work to be paid by developer.

Date: _____

Developer Authorized Signature: _____

Title: _____

Developer or Contractor License Number and Class (if applicable):

_____

Subdivisions with Marginally Substandard Test Results

_____, Developer/ contractor, hereby guarantees the material, products and workmanship relative to the asphalt roadway(s) located within _____ Subdivision, to be free from defects for a period of two (2) years from the date that the roads are accepted by the Bradley County Commission. Upon notification, Developer/ contractor shall promptly make all adjustments, repairs or replacements which arise out of defects of said roadway and become necessary during the guarantee period. The costs of all materials, parts, labor, supervision, and supplies required for replacement or repair of the roadway for correction of defects shall be paid by the developer. If within fourteen (14) days after Bradley County has notified developer of a defect, failure or abnormality in the roadway, and developer has not started to make the necessary repairs or adjustments, or if developer fails to complete the repairs or adjustments in a timely and satisfactory manner, it is understood and agreed that Bradley County is hereby authorized to make the repairs or adjustments or to order the work to be done by a third party, the costs of the work to be paid by developer.

Date: _____
Developer/ contractor Authorized Signature: _____
Title: _____
Developer or Contractor License Number and Class (if applicable):
_____

Section 6.07. Concrete Pavement (comparable to a Class "A" Road). Concrete roads must be constructed to the following specifications.

A. **Base.** A minimum base of three inches of compacted stone shall be placed over a sub-grade meeting the requirements of Section 6.03.

Concrete Mix Design. All concrete used shall develop four thousand (4,000) pounds per square inch compressive strength at twenty-eight (28) days, with a five (5) percent air-entrainment. The concrete supplier shall furnish copies of the design mix to the developer and it shall be approved by the Road Superintendent or his/her designee prior to any concrete being placed. The maximum allowable slump is four (4) inches. Samples of the concrete being used shall be taken and tested by a certified laboratory.

C. **Concrete Road Thickness.** The minimum thickness shall be five (5) inches, except as needed at formed and keyed construction joints. At least a #6 gage wire arranged in a 6" by 6" mesh grid or l/2" steel reinforcing rods shall be required. A fiber mesh may be used in lieu of the above reinforcing steel.

D. **Expansion/Contraction Joints.** Transverse contraction joints shall be sawed or hand-formed at intervals of no more than fifteen (15) feet. The depth of the contraction joint shall be one (1) inch or one-fourth (1/4) the depth of the slab. The maximum width of the joint shall be one-fourth (1/4) inch.

E. **Finish.** The concrete finish shall be a medium broom finish to a gritty final surface.

F. **Curing of Concrete.** Curing shall be that obtained with a uniform coverage of white membrane curing compound, or by seven (7) day coverage with white polyethylene or water proof paper. The completed pavement shall be closed to passenger car traffic for a minimum of three (3) days and to truck traffic for seven (7) days.

Section 6.08. REMOVED MARCH 2003.

Section 6.09. Extruded Curbs, Road Shoulders. Within Bradley County, the Subdivider shall provide one of the illustrated types of concrete or asphalt curbs on each side of the paved surface. Where extruded curbs are installed, backfill shall slope as shown in Typical Tangent Section, Type 2, and shall be higher than the curb to ensure drainage of surface water into the storm drainage system.

Curb cuts shall be installed with a lip one and a half (1.5) inches vertically above asphalt road surface.

Section 6.10. Required Inspections During Road Construction. While road construction is taking place, inspections shall be made by the Road Superintendent or his/her designee during or after each of the following steps as shown in the table below, and before a step or process is covered over by the next course or procedure. The Road Superintendent or his/her designee shall check the width, depth, and crown

of the road among other things. Weight tickets showing the type, class, and weight of gravel and surfacing material shall be furnished to the Road Superintendent or his/her representative.

Steps For:	Hot-Mix	Concrete	Gravel
***Rough Grade**	**X**	**X**	
***Finish Grade**	**X**	**X**	**X**
***Utility Installation**	**X**	**X**	**X**
***Finish Gravel**	**X**	**X**	**X**
***Binder**	**X**		
***Hot-Mix**	**X**		
***Concrete Installation**		**X**	
***Finished Concrete Surface**		**X**	

Section 6.11. Drainage Provisions and Erosion Control. The development of land usually necessitates some degree of grading, excavating, or the removal of topsoil, trees, and vegetation. Such major changes in the landscape usually produce adverse conditions to adjoining properties, public drainage facilities, and rights-of-way. Erosion and sedimentation become even more serious when changes in the landscape occur on moderately to steeply-sloped land.

A. **Detailed Erosion/Sedimentation Control and Drainage Plan Shall be Required**. On plats requiring approval by the BCRPC, the Bradley County Stormwater Coordinator shall require that a detailed erosion/sedimentation control plan and a detailed drainage plan with calculations be prepared and stamped by a registered professional engineer in the state of Tennessee, All areas in which detention ponds or detention structures are to be located shall have field shot topography of the area to be disturbed. Additionally, all existing culverts and/or drainage structures to be used in the storm drainage plan will be field located with elevations. The erosion/sedimentation control plan, drainage plan, and copies of all TDEC permits shall be submitted prior to the beginning construction. The Bradley County Stormwater Coordinator will issue a grading permit after review of the erosion/sedimentation control plan and drainage plan and after the required preconstruction meeting. **No construction shall begin prior to receipt of grading permit signed by the Stormwater Coordinator**. The developer shall use appropriate control measures to ensure that erosion, or adverse conditions caused by erosion or sedimentation, is eliminated or held to a minimum during the development of the subdivision and after its completion. As stated in the land disturbance permit, the developer has a duty to not create erosion or adverse conditions caused by erosion, sedimentation or increased run-off so as to result in a nuisance or undesirable condition to adjoining property owners, and conform to the regulations of TDEC's NPDES.

All subdivisions with storm drainage structures shall be tied to state grid coordinates and elevations in order to relate to the County G.I.S. system.

B. **Control Measures.** The following control measures should be used on all subdivisions for effective control of erosion and sedimentation. Control measures shall be installed, inspected, and approved by the Developers certified erosion control specialist before any land disturbance activity begins.

1. The development plan for the subdivision should be fitted to the topography and soils to reduce erosion.

2. The smallest practical area of land should be exposed at any one time during development and conform with the stormwater pollution prevention plan.

3. When land is exposed during development, the exposure should be kept to the shortest practical period of time. No disturbed lot area or road side area shall be left exposed (without some planted or seeded vegetation or other protective measures to minimize erosion until permanent cover is established) for longer than thirty (30) days. The developer shall be responsible for obtaining all state and local permits required for the project and providing documentation of such to this office.

4. Mulching or other temporary protective measures should be used to protect exposed areas during development.

5. Temporary furrows, terraces, sediment or debris basins should be installed to prevent washing and erosion during construction and during the time between road grading and road surfacing.

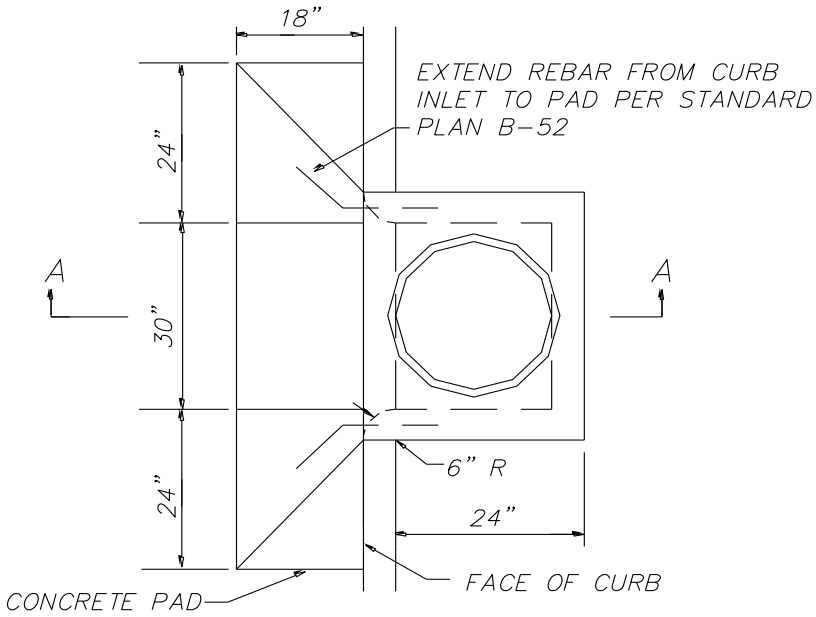
6. The permanent final vegetation and road pavement should be installed as soon as practical in the development after the land area is exposed.

NOTE: When peak runoffs are increased by development, detention/retention ponds or other special means will be required to hold flood waters from downstream properties until these waters can be released at a rate less than predevelopment rates to compensate for the concentrated flow. All detention/retention ponds will be property of the Developer or Home Owners Association and shall be noted as such on the plat. The Developer or Home Owners Association will be responsible for maintenance and repair.

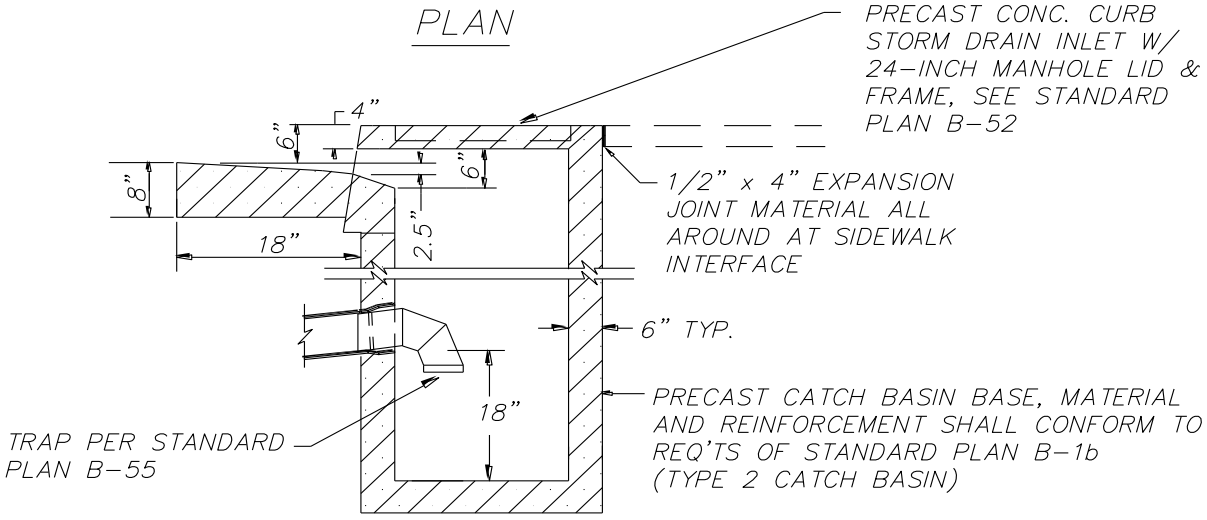
C. **Determination of Peak Runoffs.** For drainage areas up to 200 acres, the Rational Formula may be used for determining peak runoffs. Soil Conservation Service (SCS) methods may be used for watersheds up to 2,000 acres. For larger watersheds, flood frequency methods or Corps of Engineers' Method may be used. The Burki-Ziegler Formula or Talbot Formula shall not be used for any watershed.

D. **Storm Drainage Improvements.** An adequate drainage system, including necessary open ditches, pipes, culverts, catch basins with curb inlets (flat grates in, or adjacent to the roadway will not be permitted), (See detail), drop inlets, and bridges, etc. shall be provided for proper drainage of all surface water. Cross drains shall be of sufficient length to permit full roadway widths and the required shoulders and slopes. All storm drainage contained in pipes or culverts under roadway must have end walls, headwalls, or rip-rap with concrete apron walls. When open trenches or ditches are used, the measures used to prevent erosion must be approved by the Stormwater Coordinator and may include paving with concrete. All ditchlines with a grade greater than or equal to three (3) percent shall be sodded, lined with a geotextile fabric or other erosion control measures with the exception of those steeper than 2:1. All drainage ditches greater than or equal to 2:1 shall be paved with concrete or covered with a suitable erosion control cover including energy dissipaters. Spillways, eight (8) feet in length and four (4) feet wide, shall be constructed of concrete at all curb cuts. These spillways shall be backfilled and stabilized to prevent undermining of the spillways and the roadbed.

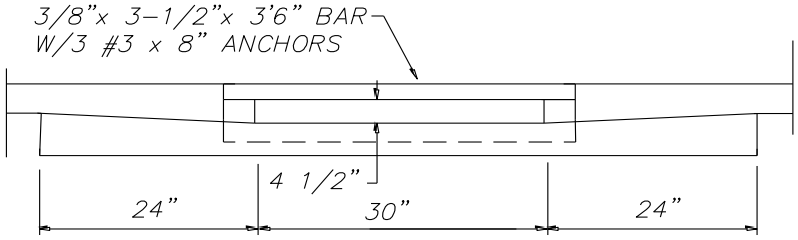
All storm drainage improvements should be shown on the plat prior to construction. Inlets and curb cuts shall be placed so that the water is removed from the paved area at distances less than or equal to 400'. Provide curb inlets, curb cuts, drainage tiles and other items as necessary to assure that no water crosses over any portion of the roadway. Provide cleanout/catch basins every 60' for extended lengths of drainage tile. If the registered engineer of the developer determines field conditions warrant changes in the location and sizes of the improvements and structures, these changes should be approved by the Road Superintendent or his/her designee prior to construction. A copy of all storm drainage plans and calculations shall be provided by an engineer registered in the State of Tennessee for the Bradley County Stormwater Staff and Road Department Staff to review. Review by Bradley County Staff is not a representation that the stormwater plan will function properly. The responsibility for the proper functioning of the stormwater plan is that of the developer and/or design engineer. The developer and/or design engineer remains responsible for any modifications or corrections.



PLAN



SECTION A



FRONT VIEW

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E. **Drainage Structures.** All drainage structures must be designed by a professional engineer licensed by the State of Tennessee. In keeping with FEMA requirements, drainage openings shall be designed so they do not restrict the flow of flood waters and unduly increase flood heights. Culverts shall therefore be designed for a 100-year flood frequency. Minimum culvert size shall be 15 inches. Maximum velocity in culvert shall be 15 ft/sec. Energy dissipaters shall be provided for the 50-year frequency at the outlet end of pipes and culverts. Stormwater detention shall be provided wherever needed to control downstream flooding. The design shall be such that damage will not occur to the roadway or adjacent properties during a 100yr flood event.

Cross drains (culverts) shall be built on a straight line and grade and shall be laid on a firm compacted base. In the event rock is encountered in the trench, the rock shall be removed four (4) inches below the grade and replaced with suitable material. Pipe shall be laid with the spigot end pointing in the direction of flow and with ends fitted and matched to provide tight joints and a smooth uniform invert. Cross drains 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. All cross drain and side drain culverts located in the right-of-way shall have a clean-out/catch-basin placed at intervals less than or equal to sixty feet (60') or as specified by the Road Superintendent or his/her designee, for maintenance purposes.

When necessary for proper flow, inlet and outlet ditches shall be provided at drainage structures and drainage easements shall be shown on side and rear lot lines. Where at all possible, main drainage ways shall be cut to the rear of lot lines and not carried down the roadway. This is to avoid having oversized side drains under driveways.

Pipe Systems and road inlets for public roads shall be designed for the 10 year frequency. Minimum pipe size shall be 15 inches. Inlets shall be spaced so that the spread in the road to collect the design flow shall not exceed 8 feet.

F. **As-Built Survey**

Upon completion of the storm drainage improvements and structures, the developer shall provide an "As-built" survey showing the location, size, type and invert elevation of the storm drainage structures, elevations of gutter line at the curb every 100' or at any break, any detention/retention areas, and a topographic survey of any fill placed in any portion of a flood zone. Bradley County will provide the surveyor with two (2) brass disks to be placed in two of the concrete monuments that are required in each subdivision. Said "As-built" survey must show the final design specifications and all data should be referenced both vertically and horizontally to the two monuments. The "As-built" shall be signed and stamped by an engineer registered in the State of Tennessee to certify that the improvements were installed according to the submitted drainage plan and calculations and then shall be submitted to the Planning Department and the Road Department for review by Stormwater Coordinator and Road Department designee. Said "As-built" survey shall be provided prior to a request for release of the Letter of Credit and/or performance bond or request for road acceptance. A final inspection by the Bradley County Planning Department and Road Department is required before any performance security or performance bond will be released or a recommendation is made for road acceptance. If the storm drainage improvements and structures have been constructed as designed and all other requirements of these Subdivision Regulations have been satisfied, the Letter of Credit and/or performance bond may be released. If the storm drainage improvements and structures do not adhere to the original drainage plan and calculations, a revised plan and supporting calculations will be required to be submitted by an engineer registered in the State of Tennessee.

G. **Developments in or Adjacent to a Flood Zone.**

Developers are required to provide hydraulic studies for any development or improvement of greater than or equal to 5 acres or greater than or equal to 50 lots that includes any portion of a flood zone. Any change would require a Conditional Letter from FEMA. The as-built for the development along with the appropriate hydraulic calculations would require FEMA approval before any local approval could be given. The installation of a permanent reference point by the developer would also be a part of this approval for new developments.

Section 6.12. Sidewalks. For the safety of pedestrians and of children at play or on approaches to community facilities, installation of sidewalks on at least one side of the road shall be encouraged by the developer to provide a safe route to a nearby school or recreation facility.

When sidewalks are provided, the following specifications shall be met: in single-family residential areas, concrete sidewalks shall be four (4) feet wide and four (4) inches thick; in multi-family or group housing, development sidewalks shall be five (5) feet wide and four (4) inches thick.

Section 6.13. Road Signs. Stop signs, speed limit and road name signs of a type specified by the Bradley County Road Department, and approved by the planning commission, shall be installed at the intersection of all roads within the subdivision and at the point existing roads are intersected by the roads of the subdivision. The road name signs shall state the name of both intersecting roads. A sign with a minimum of six (6) inch high green blades with white reflective letters will be acceptable. Stop signs shall be 24" by 24" in size and shall be reflective. Speed limit signs shall establish a maximum 25 mile per hour limit. All signs must meet MUTCD standards.

Private roads shall have signs with dimensions as described in this section, but the road name signs shall be black letters on white background.

Section 6.14. Required Utilities. The developer shall see that each lot is (A) provided with a public water supply which includes nearby fire hydrants or is approved for a water well, and is (B) provided with public sewerage or is approved for an individual septic tank system in accordance with the requirements which follow and is (C) provided with electricity to the property line :

6.14.01. Water Supply System. Water mains and appurtenances properly connected with the community water supply and approved by the Tennessee Department of Environment and Conservation Division of Water Supply or the water district involved, and the planning commission, shall be constructed in each subdivision to adequately serve for both domestic use and fire protection of all lots. All construction of water lines and appurtenances may be made by the water utility district serving the area, either with their own forces or by contract, upon the Subdivider making proper bond or financial arrangements with said district. The Subdivider may construct said water lines and appurtenances, but said construction shall be subject at all times to the inspection and approval of said district or local health authority and all inspections will be at the cost of the Subdivider. Once the Utility and State have reviewed and approved the plans, a copy of the State-Approved Plans (or Plans approved by Cleveland Utilities as designated by the State) may be required to be submitted to the Planning & Inspection Staff by the developer before consideration of the final plat will be given

No fire hydrant shall be located on less than a six (6) inch main. Therefore, six (6) inch (or greater) water lines shall be installed in all subdivisions in order to provide current and future fire protection for the development, however, with the approval of the TDEC's Division of Water Supply, pumps will be required for both domestic and fire flow if quantity is available but pressure is not. Smaller lines may be installed at the recommendation of the utility, on dead-end/cul-de-sac roads serving five or less lots, and for which the required fire protection can be provided at the intersection of the

cul-de-sac with an existing or new road on a 6 inch or greater waterline. If this cul-de-sac development is further subdivided, it will be the requirement of the developer to upgrade the line to adequately support fire flows for the entire development. When adequate fire flow is available, no lot should be more than five hundred (500) feet, measured along the road, from a fire hydrant, and no setback line of any lot should be more than six hundred (600) feet from a fire hydrant. Fire hydrants shall be located not more than one thousand (1,000) feet apart in order to maintain a good fire insurance rating and safety level. For those lines that cannot provide 500 gpm at 20 psi residual required for adequate fire flow (e.g. a 6 inch line coming off a 4 inch main), fire hydrants may be installed according to Rule 1200-5-1-.17 Section 18 of the Tennessee Division of Water Supply (See Appendix) as adopted by the local utility systems. Additional hydrants may be required by the local water district. Bradley County will not require the developer to install hydrants on subdivisions created by minor subdivision plats.

The specifications of all material, including but not limited to fire hydrants, and the manner in which all lines and appurtenances are laid, shall meet the inspection and approval of the water district involved.

All water construction plans for subdivisions shall include a service line from the main water line to the property line of each proposed lot in order that each proposed lot, at the time of construction, may be served by water without the installing of additional lines or cutting the road pavement. The end of each service line shall be properly marked.

The entire cost and expense of installing the required water supply system, including the connection to the existing water supply and including but not limited to the cost of pipe, valves, fittings, fire hydrants, trenching, back filling, and services shall be born by the Subdivider, including the stipulated payment for tapping and stubbing-out the system to serve each lot.

Private wells may be allowed whenever the proposed subdivision is more than one thousand (1,000) feet from an existing public water supply system. If private wells are to be used, the lots must be approved by the local health authority.

Sewage Disposal. These standards for development of sanitary sewer systems are established to insure healthful living conditions and protect the health of the community, to provide the best possible method of waste disposal, and to provide the necessary current and future sanitary disposal systems at the least ultimate cost to the community and individual homeowners.

6.14.02.

A. **Required Public Sanitary Improvements.** When any portion of a proposed subdivision is located within a reasonable distance, as hereinafter defined, of an existing public sanitary sewer line, sanitary sewers shall be installed to serve all the lots within the subdivision. Said reasonable distance as used in this section shall be determined by the Bradley County Regional Planning Commission but in no case shall be less than three hundred (300) nor more than one thousand (1,000) feet. Should the subdivision have elevations which are below those of the nearest public sanitary sewer, a lift station shall be installed by the Subdivider, provided the public sanitary sewer is within a reasonable distance of any portion of the subdivision.

   All sanitary sewer construction shall be built in accordance with the rules and regulations of the Tennessee Department of Environment and Conservation and/or those of the applicable local utility district. All construction of sanitary sewers and appurtenances shall be by an appropriate utility district, either with their own forces or by contract, upon the Subdivider making proper bond or financial arrangements with said district. The Subdivider may construct such sanitary sewers and appurtenances but said construction shall be subject at all times to the inspection and approval of said district. In no way shall Bradley County be responsible for the cost of these inspections.

All sewer lines, except house services, shall be no less than an eight (8) inch diameter PVC pipe or approved equal.***** Manholes shall be precast reinforced concrete, or approved equal, properly treated to prevent infiltration and located at each change in direction and/or grade and no farther apart than recommended by the Tennessee Department of Environment and Conservation and/or the local utility district serving the subdivision. Designs for needed force mains and lift stations must be approved prior to construction by all affected governing bodies and utility boards. The City of Cleveland's Utility Department is an approved inspection agency.

**** NOTE: Exceptions to this regulation may be granted if the proposed exception meets the requirements of the Tennessee Department of Environment and Conservation.***

All sewer construction plans for subdivisions shall include a house service from the main sewer line to the property line of each proposed lot in order that each proposed lot at the time of construction may be served by sewer without the installing of additional lines or cutting of road pavements. The end of each house service shall be properly marked.

The entire cost and expense of installing the required sanitary sewage system including the connection to the existing public sanitary sewer line and including but not limited to the cost of pipe, manholes, lift stations, force mains, stubbing, trenching, excavation, backfill and services shall be borne by the Subdivider. The payment for tapping the system to serve each lot shall be the responsibility of the builder or homeowner of each respective lot. This does not preclude the developer from attempting to negotiate a sharing of expenses with the utility for the portion needed to bring sewerage to the edge of his subdivision.

B. **Individual Sewage Disposal Systems.** Where a subdivision is located beyond the reasonable service limits of a public sewerage system as determined by the planning commission, the Subdivider may elect to have the lots served by individual sewage disposal systems. Should individual sewage disposal systems be proposed, satisfactory evidence shall be required that the soils are suitable for this type of sewage disposal. In such subdivisions, each lot shall be large enough and have a suitable area adequate for the installation of the proposed individual system and a duplicate system in case one is ever needed. If a lot in a subdivision has an existing individual subsurface sewage disposal system, the lot does not need approval of the Bradley County Health Authority. In these instances, the surveyor shall sketch the approximate site of the subsurface sewage disposal as shown by property owner. All subdivision lots without existing subsurface sewage disposal systems shall be approved in writing by the Bradley Count y Health Authority.

NOTE: Upon receipt of a preliminary plat, the Health Authority reviews the data and a field investigation of each lot is made. If the soil conditions are acceptable, other topographic features, including lot sizes, are considered. In addition to unsatisfactory soil types or soil tests, lots may be deemed unacceptable because of rock outcroppings, gullies, natural storm drainage ways, excessive slope, and the like. In view of topographic features and soil conditions, the maximum amount of available unusable area for subsurface disposal is determined for each lot. By using the Recommended Guide for the Location, Design, and Construction of Septic Tanks and Disposal Fields, Tennessee Department of Environment and Conservation calculations are made to determine the maximum number of bedrooms for a home and/or the maximum daily flow of sewage from establishments or institutions allowable for each lot. These data limitations and restrictions will be entered in the preliminary plat by the Health Authority and shall be shown on the final plat. This does not preclude the developer from enlarging lot sizes, combining unsuitable lots with acceptable ones, or designating certain lots for uses not requiring sewage disposal facilities as long as other requirements of the planning commission and other agencies are satisfied and provided

that the above named alternatives are reviewed and approved prior to the preparation of the final plat.

C. **Section 6.14.02. Alternative or Decentralized Sewer Treatment Systems.** Alternative or decentralized systems cannot be used when public sanitary sewers operated by a utility company are available as described in Section 6.12.02A. The utility company must provide the developer a letter within thirty (30) days of application stating whether sanitary sewer service is available in the utility company's water and sewer service area located in Bradley County. If the letter states no public sanitary sewer service is available to the subdivision the Bradley County Regional Planning Commission may then consider a request for an alternative or decentralized sewer system.

All subdivisions developed with an alternative or decentralized sewer system must be reviewed and granted preliminary approval in writing by the appropriate Bradley County utility district before consideration will be given to the preliminary plat by the Bradley County Regional Planning Commission and staff.

Final plat approval of the subdivision will not be granted by the Bradley County Regional Planning Commission until the State of Tennessee Division of Water Pollution Control has completed their review and issued an approval letter and operating permit for the facility. An approval letter with a commitment for operation and maintenance of the system from the appropriate Bradley County utility district is also required prior to final plat approval.

All required wastewater utility easements shall be shown on the final plat.

A scaled drawing shall be submitted to the Planning Commission along with the preliminary plat showing the preliminary site layout including:

1. The potential treatment area for the sewer system (including immediate and probable future development).
2. Pre-application treatment facilities
3. Storage facilities
4. Disposal fields
5. Buffer zones
6. Access roads and utilities
7. Watercourses and drainage structures
8. Wells within 500 feet of the site

All wastewater treatment and disposal systems constructed in Bradley County using land for disposal of the wastewater shall comply with the provisions of the State of Tennessee Department of Environment and Conservation Division of Water Pollution Control Design Criteria for Sewage Works, Chapter 16, Slow Rate Land Treatment, effective April 2, 1996. (amendment 7.11.06)

Section 6.15. Construction Bond Procedure.

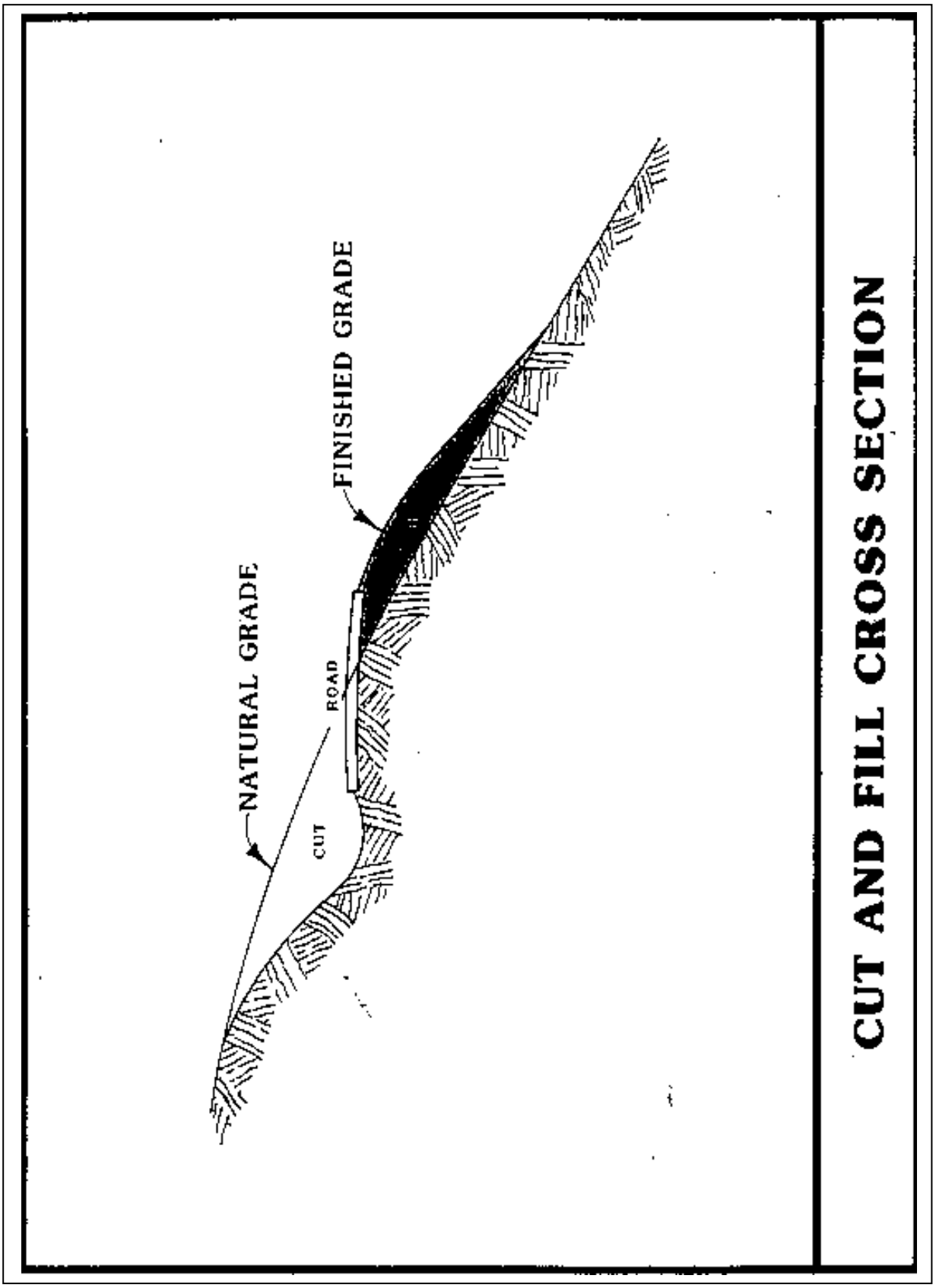
A. Minimum site improvements are required to be completed before the developer may submit for final plat approval. Minimum requirements would include all major grading and installation of utilities and monuments. However, if the developer of the subdivision does not wish to complete all of the road work before obtaining the final plat approval needed before lots can be sold, he is allowed to post a surety bond, or a certified check, or a letter of credit in favor of the BCRPC as beneficiary in form and duration as specified (See Appendix for sample letter) with the BCRPC to cover the cost of all of the road and road related improvements required in Article 6 and not yet installed. The bond or letter of credit

amount shall be determined by the Road Superintendent or his/her designee and will represent 150 percent of the estimated costs of the improvements to protect the county in case it has to use the latter if the developer defaults and does not complete the work.

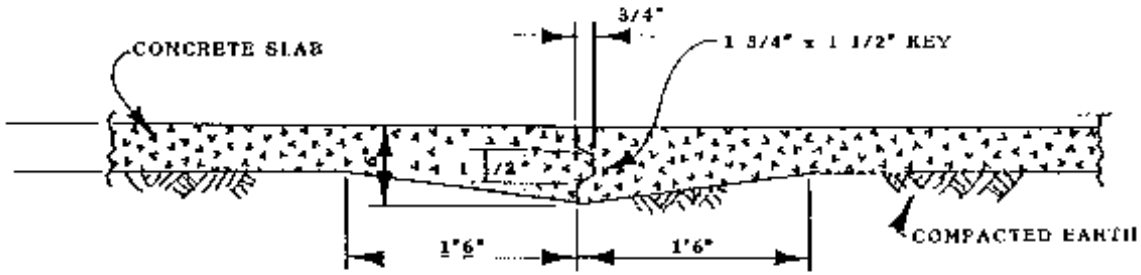
B. After suitable bond or letter of credit is obtained and within the time period of the bond, the developer then installs the utilities and constructs the required roads and related improvements each of which is inspected as required in these Subdivision Regulations or by the approving authority**.**

C. After completion of a concrete road or a hot-mix road the roads are inspected by the Road Superintendent or his/her designee and core drillings are made as required. Once work submittals and test results are complete, the developer must submit a Request For Road Approval form, pay testing cost, and submit as-built drawings.

E. If the work submittals and test results are complete and satisfactory, the Road Superintendent or his/her designee shall notify the Bradley County Road Committee that the road is ready for review and acceptance into the county maintenance system (see Section 7.07). The bond or letter of credit is not released or reduced by the Road Superintendent until after the road or roads have been accepted by the County Commission and until any other improvements which were bonded have been approved by the appropriate authorities

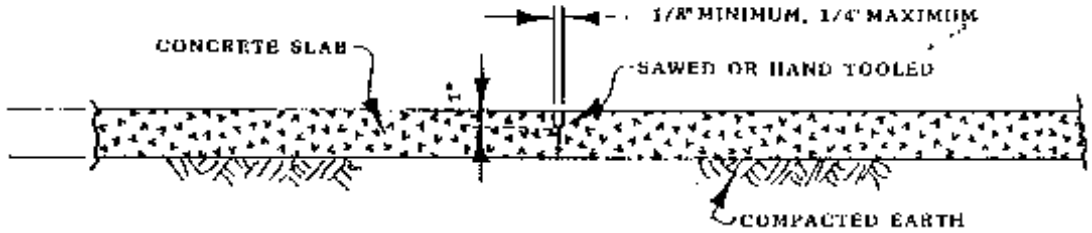

FINISHED GRADE
NATURAL GRADE
ROAD
CUT
CUT AND FILL CROSS SECTION

TYPICAL CONSTRUCTION JOINT

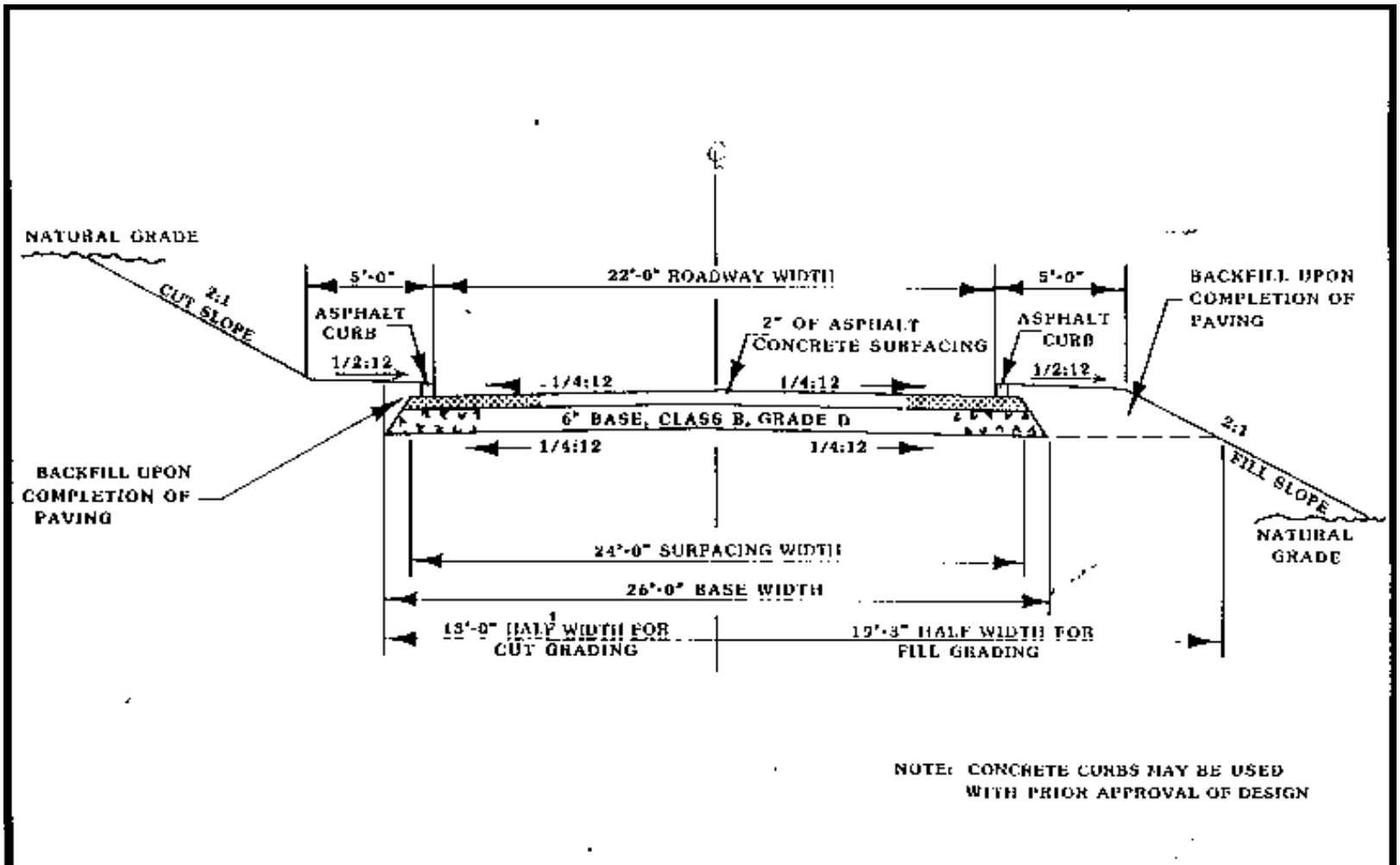


NOTE: ROAD SECTION SHALL GRADUALLY RISE TO PROVIDE A 2" CROWN IN CENTER.

TYPICAL TRANVERSE CONTRACTION JOINT

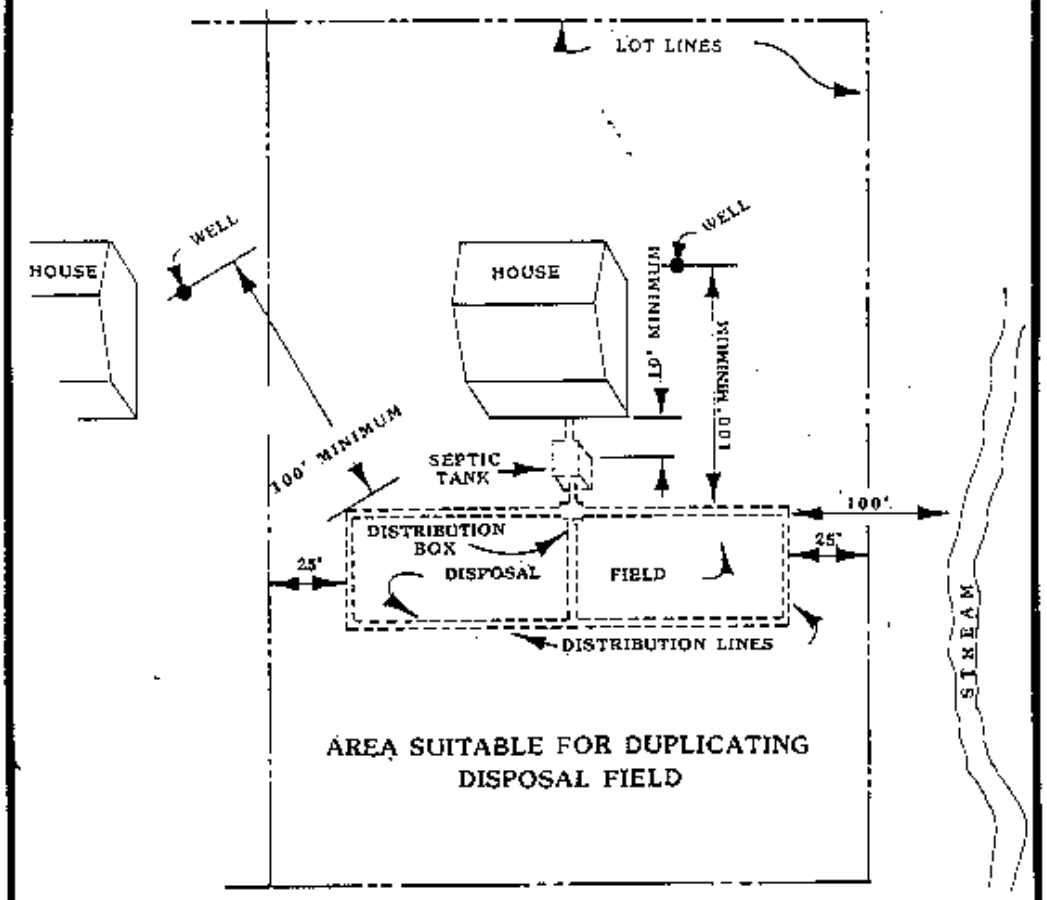


DETAILS OF CONCRETE ROADS



TYPICAL TANGENT SECTION

TYPE TWO



SEPTIC SYSTEM

ARTICLE 7

FINAL PLAT REQUIREMENTS

Section 7.01. Time Limit and Specifications. After the preliminary plat of a proposed subdivision has been approved by the BCRPC, the Subdivider or his agent must, within two years of the date of preliminary plat approval, submit the final plat to staff of the BCRPC. If the final plat is not presented within two years of the date of approval of the preliminary plat, the BCRPC shall require that the preliminary plat first be resubmitted for review and re-approval according to the then current regulations. Under no condition shall an expired preliminary plat be resubmitted and granted approval in the same meeting as a final plat.

Five (5) copies of the final plat must be submitted at least twenty-one (21) days prior to the BCRPC meeting at which the plat is to be considered; five (5) copies of the corrected plats shall be received by the county planner seven (7) days prior to said meeting; copies are distributed as follows:

The **FINAL PLAT** must be based on the approved preliminary plat and must substantially **MEET ALL OF THE SPECIFICATIONS OF THE PRELIMINARY PLAT** listed in Section 5.04 (except for showing contour lines and utility lines) and those listed as follows:

a. the subdivision depicted at a scale of **1" = 100"**,

b. bearings and distance to the nearest existing road lines, bench marks, or other permanent monuments. (Not less than two of these shall be accurately described on the plat to locate the subdivision accurately in relation to existing development),

c. municipal and county boundary lines accurately tied to the lines of the proposed subdivision by distance and angles when such lines traverse or are within two hundred (200) feet of the subdivision,

d. boundary lines of the tract, determined by a land survey, giving distances to the nearest one-tenth of a foot and angles to the nearest minute which shall be balanced and closed with an error of closure not exceeding one in seventy-five hundred 1:7,500),

e. location, widths, and names of all roads within and connecting to the property,

f. sufficient data to readily determine and reproduce on the ground the location, bearing, and length of every road line, whether curved or straight. The point of curvature and the point of tangency of all curves on all right-of-way lines shall be located by distance to the nearest lot corner,

g. lot lines with dimensions to the nearest one-tenth of a foot and bearings to the nearest minute,

h. location, dimensions, and purposes of any easements and any areas to be reserved or dedicated for public use,

i. location and size of the necessary drainage structures,

j. statement of modifications or limitations by local health authority regarding individual water or sanitary sewer systems,

k. required certificates (see following sections).

l. names of adjoining property owners and/or subdivisions for reference purposes.

m. size and location of public lines

n. location of hydrants

o. submission of road profile to staff

Section 7.02. Owner's Certification. An Owner's Certification shall be placed on the final plat as follows:

"OWNER'S CERTIFICATION"

"The owner of the land shown on this plat and whose name is subscribed hereto, in person or through a duly authorized agent, certifies that he owns the land being subdivided; that there are no previous private restrictions against subdividing; that all Tennessee state taxes, Bradley County taxes, and other assessments now due on this land have been paid; and that he is dedicating the road rights-of-way for public use and any other areas so designated and is also establishing easements as specified on the plat."

_____ **OR** _____

AGENT **OWNER**

_____ _____

DATE **DATE**

Section 7.03. Surveyor's Certification. A surveyor's certification shall be placed on the final plat as follows:

"SURVEYOR'S CERTIFICATION"

I hereby certify that this plat is true and correct to the best of my knowledge and belief and was prepared from an actual survey of the property by me or under my supervision and that the ratio of precision of the unadjusted survey is 1 per _____ as shown hereon."

_____ _____

SURVEYOR **TN. R.L.S. #**

_____

DATE

Section 7.04. Certification Signature Block. A block, as shown herein, shall be provided on the plat for the signatures of the local governmental review agencies, utilities, and the BCRPC secretary. Designated officials shall sign and date appropriate lines to certify that the subdivision meets their department's specifications as stated in the Bradley County, Tennessee Subdivision Regulations. (This can include the posting of a bond, certified check or letter of credit as allowed in Section 6.15)

The BCRPC secretary's signature indicates that the plat has been approved and that the other required signatures are in place.

The main signature block shall read as follows:

> "I hereby certify that all the requirements of approval have been fulfilled pursuant to the Bradley County, Tennessee Subdivision Regulations that pertain to my Department or Position."

ENVIRONMENTAL CERTIFICATION **DATE:**	**SUPT., PIKE-ROAD DEPT.** **DATE:**
MANAGER, WATER UTILITY **DATE:**	**MANAGER, ELECTRIC SYSTEM** **DATE:**
	SECRETARY, BRADLEY CO. PLANNING COMMISSION **DATE:**

Section 7.05. Review by Staff and BCRPC. Upon receiving the five (5) copies of the final plat, twenty-one (21) days ahead of the next meeting, the staff of the Planning Office shall "log-in" the plat, and tell the developer the date of the meeting at which the plat will be considered. (The next regular meeting unless the plat is late.) The developer shall be present at the meeting. If a meeting date is changed, staff shall notify each developer with a plat pending.

After reviewing the plat, staff shall contact the developer or surveyor to note obvious deficiencies, which can be corrected before the meeting. Usually this will take the form of a completed “plat checklist”. If the deficiencies are not corrected and if a reason is not given for the deficiencies not being corrected, the corrected final plat submitted by noon seven (7) days ahead of the next meeting will not be placed on the agenda for the next regular meeting. The planner will review and return recommendations for any changes on the plat to the developer or surveyor. Staff shall also study the appropriate Bradley County Tax Maps to see the proposed subdivision in relation to surrounding developments, drainage, and road connections. Staff shall give their recommendation regarding the plat to the BCRPC prior to or at the meeting.

At their meeting, the planning commission may defer action if the developer is not present to explain important questions that may arise regarding the subdivision.

The planning commission shall check the final plat for substantial conformance with the approved preliminary plat, and with the rules and regulations of this document.

Thereafter, the BCRPC shall approve or disapprove the final plat. If disapproved, the reasons for such shall be stated in the BCRPC minutes. If action on the final plat is not taken by the planning commission within sixty (60) days of the date of submittal, the final plat shall be considered approved and a certificate

of approval shall be issued on demand. However, the applicant for approval may waive this requirement and consent to an extension of time.

The original plat shall be drawn in permanent ink on paper, equal to the standards required by the County Register. Sheet size for major plats shall be twenty-two (22) by thirty-three and one-half (33 1/2) inches from trim lines, with a four (4) inch binding edge on the long side with a 4" x 4" blank box in the top right corner of the plat for the registers stamp. Sheet size for minor plats shall be eleven (11) inches by seventeen (17) inches with a two (2) inch binding edge on the left side with a 2" x 3 ½" blank box in the top right corner of the plat for the registers stamp. If the complete plat cannot be shown on one sheet of this size, it may be shown on more than one sheet with an index map on a separate sheet of the same size. Signatures and the required certifications shall be placed on all five (5) prints of the plat.

If the development is so large that it will take many sheets to show at a scale of **1" = 100'**, then the developer shall be allowed to demonstrate to staff that the plat requirements can be legibly met at a reduced scale never to be smaller than **1" = 200'**.

Section 7.06. Recording of Final Plat. Upon approval of a final plat, the Subdivider shall have one (1) paper copy of the original final plat with all certificates and original signatures recorded in the office of the Bradley County Register. All wording on the original plat must be legible and readable.

Section 7.07. Road Acceptance. If there are any new roads in the subdivision, they will be submitted to the County Road Committee after the Road Department Superintendent has certified that the roads have passed their final inspection and the developer has given assurance that all of the expenses regarding the subdivision have been paid, i.e. subcontractors, etc. (See Section 6.15). When the County Commission accepts the recommendation of the Road Committee the roads are added into the county-maintained road system and they are also subsequently added to the county road map series. The road bond or letter of credit, if there was one, is not released until the road or roads are accepted for county maintenance.

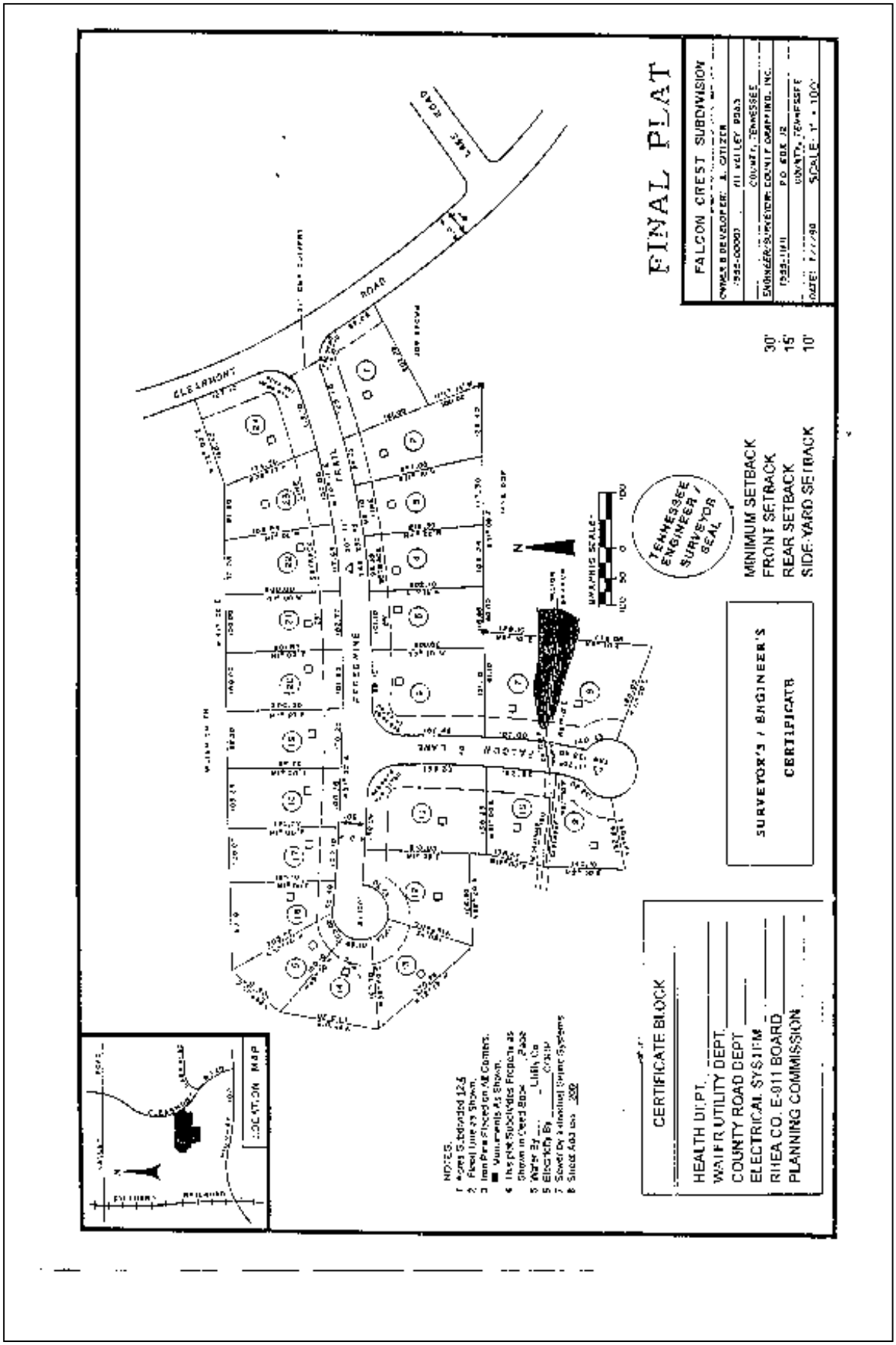
As part of the road acceptance process, the developer shall certify to the planning commission that the dedicated roads are free of any liens, encumbrances or claims of any parties. This shall be done through a recorded release on any claims for any dedicated road rights-of-way from any lending institution which may hold any portion of this development as collateral or by any other such proof as may be required by the planning commission. The planning commission shall also require an affidavit from the developer that all contractors and subcontractors involved with improvements to any rights-of-way have or will have no future liens on the roads for which acceptance is being sought.

Section 7.08. Procedure for Expeditious Certification of Minor Subdivisions. Procedure for Expeditious Certification of Minor Subdivisions. A developer or property owner who wishes to divide a tract or lot into two parcels, both of which will have the required access to a publicly-maintained road (as set forth in Section 9.05), and neither of which will require a road extension or the extension of public water or sewerage, may prepare a combined preliminary and final plat which meets all of the platting requirements and submit it to the Bradley County Planning Office. Provided there is no request for, or need for a variance of any type, this minor type of subdivision may be approved by the Bradley County Planning Office and signed by the secretary of the BCRPC, upon staff's recommendation. In no case, however, shall any tract of land be subdivided under this section more than once in any three (3) month period of time. That time period beginning from the date of recording of a minor subdivision plat involving said property. If disapproved by the Bradley County Planning Office, the developer may request to be on the AGENDA of the next BCRPC meeting provided he meets the AGENDA deadline of twenty-one (21) days.

Such two-lot plats shall contain, in addition to the other required appropriate certificates, a certificate worded as follows to assure the secretary of the BCRPC that the plat has met staff approval:

"I hereby certify that this minor subdivision plat meets the requirements of the Bradley County Subdivision Regulations as specified in Section 7.08. and elsewhere.

DIRECTOR OF PLANNING	**DATE**
PLANNING COMMISSION SECRETARY	**DATE**


FINAL PLAT
FALCON CREST SUBDIVISION
MINIMUM SETBACK
FRONT SETBACK
REAR SETBACK
SIDE-YARD SETBACK
30'
15'
10'
TENNESSEE ENGINEER / SURVEYOR SEAL
SURVEYOR'S / ENGINEER'S CERTIFICATE
CERTIFICATE BLOCK
HEALTH DEPT.
WATER UTILITY DEPT.
COUNTY ROAD DEPT.
ELECTRICAL SYSTEM
RHEA CO. E-911 BOARD
PLANNING COMMISSION
LOCATION MAP
NOTES:
ELEARMONT
ROAD
FALCON LANE
FREEDOM
TRAIL
LAKE ROAD

ARTICLE 8

REQUIREMENTS FOR TOWNHOUSE SUBDIVISIONS

Section 8.01. Purpose of this Article. The development in Bradley County of townhouse units to be sold in fee simple, each with its own small lot, requires special regulations not provided elsewhere within the "Bradley County, Tennessee Subdivision Regulations."

Reasons for special regulations include:

A. The narrow lots needed for townhouses are not provided elsewhere in the "Bradley County, Tennessee Subdivision Regulations,"

B. The narrow lots to be allowed are not suitable for any other housing type. The townhouse footprint must be "in place" before Final Subdivision Plat Approval is granted.

Section 8.02. Townhouse Need. Townhouse subdivisions are allowed in Bradley County in suitable locations to provide a greater variety of housing types for residents to choose. (Many people do not want the responsibility of maintaining a large lot, but still want the advantages of homeownership.)

Section 8.03. Definition of a Townhouse. Townhouses in Bradley County are defined as all of the following and townhouse subdivisions shall be approved only for housing units that meet this complete townhouse definition:

A. a single-family residential dwelling of one, two, or three floors, having at least one bedroom, and having or appearing to have a common wall with an adjacent similar unit or units.

B. single-family units which are built in sets of between two and nine units per major building.

C. units having fire walls constructed in accordance with the provisions of the current edition of the Southern Standard Building Code, Section 403.3, "Separation between Townhouses," and

D. units having individual architectural characteristics to the extent feasible, such as different front wall setbacks, different roof heights, and different, but harmonious building materials and/or colors.

Section 8.04. Subdivision Plat Approval Procedure. No individual lots can be recorded until the following steps in the subdivision and development process have been followed by the townhouse developer:

Step 1: Prepare a SITE PLAN which will serve as a Preliminary Subdivision Plat for the proposed townhouse development.

The Site Plan (drawn to scale) shall provide the following information and show the following elements as they will be arranged on the site of the townhouse subdivision:

a. name of townhouse subdivision,

b. name, address, and phone number of owner of record and the applicant,

c. date of drawing,

d. scale of drawing (not smaller than one (1) inch equals forty (40) feet),

e. north point,

f. total land area in acres in each phase of the planned townhouse subdivision,

g. locations and dimensions of all property lines including the major lots which will each contain a group of two to nine townhouse units and the small individual townhouse lots into which the major lots are divided,

h. contour lines, if the site has an area with a slope of over five percent,

i. proposed location of each townhouse group showing number of units in each building, (conceptual drawings i.e. perspectives, etc., are not required but will assist the BCRPC in understanding the proposal),

j. building setback lines,

k. proposed parking space locations,

l. existing and proposed sewer and water lines and fire hydrants (see Section 8.06a),

m. existing and proposed public road rights-of-way and pavement widths, (see Section 8.06B),

n. existing and proposed utility easements or other needed easements,

o. retaining walls, sidewalks, and other similar proposed features,

p. landscaped areas or other special proposed areas, such as recreation facilities,

q. natural or proposed water courses or water bodies and drainage structures, and

r. limits of 100-year flood area, if any.

MINOR OR
INDIVIDUAL LOTS
1
2
3
4
MAJOR LOT

Since the Site Plan will also serve as the preliminary subdivision plat, it shall also meet the requirements for a Preliminary Subdivision Plat as required in Article 5, Section 5.04 of the Bradley County Subdivision Regulations, except that the lot area and dimensional regulations in Section 8.05 of this Article shall apply:

Step 2: Twenty-one (21) days prior to a scheduled BCRPC meeting, meet with staff of the BCRPC (Director of Planning) for a review of the Site Plan and also submit any proposed covenants and restrictive conditions that will apply to the development. Staff will place the requested planning commission review of the Site Plan on the official BCRPC agenda.

Step 3: Meet with the BCRPC and obtain their approval of the Site Plan. The approval of the BCRPC will be based on whether or not the Site Plan contains all of the elements listed in Section 8.04, meets the design criteria set forth in Sections 8.05 and 8.06 of this Article, and also meets the requirements of Article 5 except that the lot area and dimensional regulations in Section 8.05 shall apply.

Step 4: Proceed to construct the required improvements (roads, drainage facilities, and utilities) as well as the townhouse units for the whole development or for one or more phases according to the approved site plan.

The standards for subdivision roads, drainage, water supply, and sewerage extensions or septic systems contained in Article 6, must be met for a townhouse subdivision just as for a conventional subdivision except for the allowances in Section 8.06:

Step 5: Prepare a Final Subdivision Plat of the built-up phases showing how the major lots on the approved Site Plan have been divided into minor lots for individual townhouses.

NOTE: 1. The Final Subdivision Plat shall show the individual lot lines exactly where the side walls of the townhouse units were actually built after any site adjustments were made. 2. A "built-up" phase contains all lots within the townhouse development which contain townhouse construction which have framing inspection approval from the Bradley County Building Inspector.

Step 6: Twenty-one (21) days prior to a scheduled BCRPC meeting, present the Final Subdivision Plat of the built-up phases to the county staff (Director of Planning) for careful plat review, as well as a careful field check of the development; and place the requested Final Subdivision Plat review on the official BCRPC agenda.

Step 7: Be at the scheduled BCRPC meeting or send a representative. If all of the appropriate requirements for the Final Subdivision Plat approval in Article 7 and also in Article 8 have been met or adequate bonds approved by the Road Department Superintendent have been posted to cover incomplete roads or utilities (but not buildings), then the BCRPC shall grant final subdivision approval for the phases which have "built up" townhouse units on each lot. The term "built up" townhouse unit pertains to townhouse units which have received framing inspection approval from the Bradley County Building Inspector.

Step 8: A bond shall be held by the county for one-year after roads intended for county maintenance are constructed to assure road quality (see Section 6.15)**.**

Step 9: Record the final plat and proceed to sell the individual townhouse units.

Section 8.05. Area and Dimensional Requirements for Townhouse Lots.

a. **Minimum Lot Area:** 1,800 square feet

b. **Minimum Lot Width**: 18 feet

c. **Minimum Lot Depth**: 90 feet, provided front and rear setbacks are met.

d. **Minimum Building Setback Lines:**

front - 25 feet from road right-of-way unless the site plan provides a suitable arrangement of rear parking, in which case lesser front yard setbacks may be allowed when units face local roads that will only serve the townhouse subdivision.

rear - 15 feet.

side - none, except end units shall have a 10-foot setback for side lot line adjoining another townhouse group (i.e. 20 feet separation)*****, and a l5 foot setback from side lot line adjoining a non-townhouse lot. (When the townhouses are on a lot adjacent to a side road, that is, a "corner lot," the lot for the end unit shall have a side yard setback of 25 feet from the right-of-way of the side road.)

Section 8.06. Other Requirements for Townhouse Development.

A. **Water and Sewerage Systems:** Public water and sewerage systems shall be required for all townhouse subdivisions. If the existing lines are not available, the developer shall run lines to his development. The specifications for line size, etc., for water and sewer contained in Section 6.14 of these subdivision regulations shall be met. The small narrow lots preclude individual wells and septic tanks. The term "townhouse" implies an urban (town) or at least suburban setting with higher density housing.

The BCRPC may waive the requirement for public sewerage when the developer has satisfactorily shown the BCRPC and the Bradley County Health Department that an alternative system of sewage collection and disposal will function correctly and safely, will be durable, and will not become a liability for the county.

B. **Road Construction and Drainage:** All proposed roads, curbs, and drainage facilities shall be built in accordance with the construction standards for public subdivision roads contained in Article 4 of the Bradley County Subdivision Regulations with the following exceptions:

1. Road right-of-ways shall be a minimum of:

50 feet wide for streets that connect existing public roads, and a minimum of 40 feet wide for cul-de-sacs and internal horseshoe type loops.

2. Pavement widths shall be a minimum of:

22 feet from curb to curb.

C. **Off-Road Parking:** Two (2) spaces accessible to the public road shall be provided for each townhouse unit. The spaces shall be a minimum size of 9 feet by l8 feet. The two spaces shall be located entirely on the townhouse lot rather than the public road right-of-way, and it must not utilize any of the 22 foot road width required for moving traffic lanes.

D. **Flood Protection:** The building sites within the townhouse subdivision shall be located in flood-free areas of Bradley County or shall otherwise be shown to be above the level of the 100-Year Flood in accordance with the Bradley County Floodplain Zoning Resolution.

E. **Reconstruction:** In the event that one or more townhouse units are destroyed by fire or other cause, no structures shall be placed on any vacant townhouse lot except another townhouse unit which must be built according to the intent of these townhouse subdivision regulations.

Section 8.07. Conversion of Existing Apartment Structures to Fee Simple Townhouse Complexes. This section allows existing apartment structures (defined as any multi-unit apartment building under construction to the extent of a complete foundation on the date of the passage of these Townhouse Regulations and occupied within 12 months of passage) to be converted and sold as fee simple townhouses provided the following conditions and requirements are met:

A. the units must have a vertical arrangement so that only one unit will occupy a single lot when the lot lines are recorded. No part of one unit can lie over or under another,

B. fire walls constructed in accordance to the current edition of the Southern Standard Building Code shall be located between all abutting townhouse units,

C. all townhouse lots shall abut a public road,

D. a public road right-of-way shall be dedicated as follows:

40 feet for cul-de-sacs or horseshoe-type loops,

50 feet for roads that connect existing public roads,

E. pavement widths shall be a minimum of 22 feet exclusive of any parking spaces,

F. minimum road construction shall be as required in Article 6,

G. public sewerage shall be provided to each unit except as allowed in Section 8.06,

H. building setbacks - platted lots must be large enough so that existing buildings and units meet the following:

front - 20 feet

rear - 20 feet

side - none, except end units shall have a 10-foot setback for side lot line adjoining another townhouse group (i.e. 20 feet between buildings) and a l5 foot setback from side lot line adjoining a non-townhouse lot. (When the townhouses are on a lot adjacent to a side road, that is, a "corner lot," the lot for the end unit shall have a side yard setback of 25 feet from the right-of-way of the side road.)

I. deed restrictions, as appropriate to the conversion, shall be prepared and submitted to the BCRPC with the final plat.

J. **Final Plat Requirements.** Before the proposed townhouse lots created within an existing multi-family development can be recorded and sold, a final plat must be prepared by a licensed surveyor and approved by the BCRPC. The final plat shall show the following:

- proposed name of townhouse development,
- name, address and phone number, of owner of record and the applicant,
- surveyor's name and stamp,
- date of drawing, north point, and scale, (not smaller than **l" = 40'**),
- locations and dimensions of all townhouse property lines,
- building setback lines,
- parking areas,
- existing water and sewer lines and fire hydrants,
- existing and proposed public road rights-of-way and pavement widths,
- limits of l00-Year Flood, if any.

K. There shall be no requirements for the following:

1. individual architectural character,
2. number of units per building or size of units,
3. lot area, provided setbacks are met.

ARTICLE 9

PLATTING JURISDICTION, ENFORCEMENT, AND PENALTIES FOR VIOLATION

The enforcement of these regulations and the penalties for the unapproved recording or transfer of land are provided by state law in the authority granted by public acts of the State of Tennessee.

Section 9.01. Platting Authority. The regulation of the subdivision of land and the attachment of reasonable conditions to land subdivision is an exercise of valid police power delegated by the State to the Regional Planning Commission in Tennessee Code Annotated, Section 13-3-402. Therefore, the developer has the duty of compliance with reasonable conditions laid down by the planning commission for design, dedication, improvement, and restrictive use of the land so as to conform to the physical and economic development of the local government therein and to the safety and general welfare of the future lot owners in the subdivision and the community at large.

Therefore, from and after the passage of these regulations, the planning commission shall be the official platting authority in the unincorporated area of Bradley County which area comprises the planning region, and no plat of land subdivision shall be entitled to be recorded in the Office of the Bradley County Register unless it shall have the approval of the planning commission inscribed thereon. The filing or recording of a plat of a subdivision without the approval of the planning commission, as required by these regulations, is declared to be a misdemeanor, punishable by law, with each day of noncompliance being a separate offense.

Section 9.02. Use of Plat. The transfer of, sale of, agreement to sell, or negotiation to sell land by reference to or exhibition of, or other use of a subdivision plat that has not been given final approval by the planning commission and recorded in the office of the Bradley County Register is a misdemeanor, and the description by metes and bounds in the instrument of transfer or other document shall not exempt the transaction from such penalties.

Tennessee Code Annotated, Section 13-3-410, 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 county misdemeanors as provided by 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. Upon notice from the planning commission or its staff, the county commission through its attorney or other official, designated by the county commission, may enjoin such transfer or sale or agreement by action or injunction.

In addition, those who purchase the unapproved lots will have a cloud on their title, will be denied building permits if it is known the lot is illegal, and may have legal recourse against the developer who sold them the land.

Section 9.03. Enforcement. No plat or plan of a subdivision located within the area of the Bradley County Planning Region shall be filed or recorded by the County Register of Deeds until said plat or plan has received final approval in writing by the secretary of the planning commission as provided in Tennessee Code Annotated Section 13-3-402.

Section 9.04. Opening and Improving Public Roads. No public officer, authority or county governing body shall accept, layout, open, improve, grade, pave, or light any road, lay or authorize the laying of water

mains or sewers, or the construction of other facilities or utilities in any road located within the area of planning jurisdiction unless such road shall have been accepted, opened or otherwise received the legal status of a public road prior to the adoption of these regulations, or unless such road corresponds in its location and lines to a road shown on a subdivision plat approved by the planning commission, or on a road plan made and adopted by the commission as provided in Tennessee Code Annotated Section 13-3-406.

Section 9.05. Erection of Buildings. No Bradley County Building Permit shall be approved by the Bradley County Building Inspector's Office and no building requiring a building permit shall be erected on any lot in a subdivision within the area of jurisdiction of the Bradley County Regional Planning Commission unless the lot has one or more of the following types of access:

A. Individual frontage directly on a publicly-maintained road:

1. which has been accepted as a public road prior to January, 1972, the date after which Bradley County has had continuous subdivision regulations,

2. which has been accepted by the planning commission or by the county commission in accordance with these subdivision regulations, or by the county commission or State of Tennessee in accordance to their acceptance policies, or

3. which has been accepted under the **BOND PROVISIONS OR LETTER OF CREDIT** in Section 6.15 of these subdivision regulations.

OR

B. Existing frontage upon a recorded easement or existing road built to the standards of a class "C" road prior to September 8, 1992.

OR

C. Frontage on a new private road in a subdivision approved by the BCRPC in accordance with the standards approved by the Bradley County Commission for private roads.

Section 9.06. Penalties. No county register shall receive, file or record a plat of a subdivision within the planning region without the approval of the planning commission as required in Tennessee Code Annotated Section 13-3-402, and any county register so doing shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by law.

ARTICLE 10

VARIANCES, AMENDMENTS, AND APPEALS

Section 10.01. Variances. Variances may be granted where the 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. The approval of the variance shall be only upon the affirmative vote of two-thirds of the quorum present at any meeting where voted.

Section 10.02. Amendments. These regulations may be amended from time-to-time by the planning commission, which shall first hold a public hearing on the proposed amendments. At least thirty (30) days notice of the time and place of the hearing shall be published in a newspaper of general circulation in the county.

Section 10.03. Appeals. Appeal is granted from the final action of the planning commission to the court of jurisdiction, but only for the wrongfully withholding of approval by its arbitrary, capricious and/or discriminatory conduct or acts.

ARTICLE 11

LEGAL STATUS PROVISIONS

Section 11.01. Separability. Should any section or provision of these regulations be declared invalid or unconstitutional by any court of competent jurisdiction, such declaration shall not affect the validity of the regulations as a whole or part thereof which is not specifically declared to be invalid or unconstitutional.

Section 11.02. Conflict with Other Regulations. Whenever there is a discrepancy between minimum standards or dimensions noted herein and those contained in zoning regulations, building codes, or other official regulations, the highest, or most restrictive standard shall apply.

ARTICLE 12

ADOPTION

These regulations are hereby officially adopted by the Bradley County Regional Planning Commission and shall replace previously adopted Subdivision Regulations.

DATE	**CHAIRMAN** **BRADLEY COUNTY REGIONAL PLANNING COMMISSION**

APPENDIX A

ANSWERS TO QUESTIONS OFTEN ASKED ABOUT SUBDIVISION REGULATIONS

1. Are subdivision regulations fair to everyone?

Yes, the written regulations provide the local planning commissions with uniform procedures and standards of design and construction by which to appraise equally and fairly all plats for land subdivision.

2. Who is affected by the regulation?

Every owner of land within the planning region who divides land into smaller parcels, or changes the size or shape of existing lots.

3. Am I affected if I resubdivide my tract into two parcels?

Yes, in most cases. "Subdivision" means the division of a tract or parcel of land into two or more lots, sites or divisions for immediate or future sale or building development, and includes resubdivision. (See definition in Article 2.)

4. What's to prevent me from recording a subdivision plat without approval?

The county register of deeds is prevented by law from recording land subdivisions lying within planning regions without final planning commission approval in writing.

5. Can I sell by an unapproved plat and then record my lots by metes and bounds?

No. State law makes it a misdemeanor, punishable by law, to use an unapproved subdivision plat even if metes and bounds description is used in the instrument of transfer or sale.

6. What happens if I sell unapproved and unrecorded lots from my subdivision?

- **a.** A state law has been broken (TCA 13-3-410).
- **b.** Some cloud would exist on the title to the lot.
- **c.** Most lending agencies will not approve or guarantee loans.
- **d.** State law requires that public bodies shall not extend sewers, water mains, lighting or other utilities in unauthorized roads.
- **e.** Where building permits or zoning are in effect, a building permit to construct any building will be withheld.
- **f.** Any building or structure erected in violation may be forced to be vacated or removed.
- **g.** The legislative body of a county or municipality may stop sales by injunction or other legal action.

7. What improvements will I need to install in my subdivision?

Most subdivision regulations require the developer to grade and improve roads, install curbs, monuments, sewers, and water mains in accordance with adopted specifications.

8. Why doesn't the lot buyer instead of the developer pay for improvements?

The lot buyer does - at the time he purchases his property. If lots are sold without regulations, often the community bears the expense of providing needed improvements that should have been originally planned for and installed by the developer.

9. Won't subdivision regulations cause expensive development and cost me a lot of money?

Quite the contrary! Properly planned subdivisions make the most of land with a minimum of construction and operating cost. Good design takes advantage of all capabilities of the site and results in a minimum amount of roads and utilities with a maximum number of well-arranged and easier-sold lots. Good land subdivision affects the value of the land and the immediate return to the investor, while saving the developer money.

10. How do I go about having a subdivision approved?

Your local planning commission's printed set of regulations include the procedure for having a plat approved. The planning commission meets at regular intervals and your preliminary plat is submitted in advance of the meeting at which it is to be considered. It is suggested that you consult your planning commission early so as to become familiar with the official plans that might affect your area.

11. What if I wish to lay out a commercial or industrial subdivision?

The provisions of subdivision regulations apply to all subdivision of land, including that for use of business and industry. Since space, parking and service requirements will vary greatly, it is impossible to establish standards for all types of uses. For that reason, specific requirements for lot sizes and area are set forth in detail only for residential areas.

12. Where can I get technical site planning assistance?

Your planning commission will help by recommending several competent subdivision designers who can contribute much to the financial success of your subdivision. Although they will not prepare final plans for you, advice on layout and design is available from the staff of the Bradley County Office of Planning.

APPENDIX B

BRADLEY COUNTY
PRIVATE ROAD STANDARDS

Private Roads under this Article shall be defined as any road access serving two or more owners whereby the access shall be a non-exclusive and perpetual easement for the benefit of those being served by it. (The easement/access can be terminated only by all parties in interest unless subsequently accepted by the governmental authorities as a public road.) A private road shall be jointly owned by **(1)** the property owners utilizing the road or **(2)** a property owner's association.

All Private Roads must meet the following standards:

A. The final subdivision plat must indicate that the easement, or right-of-way is for a "private road."

B. The private road shall be open to public safety vehicle access and utility vehicle access.

C. Easements or rights-of-way used for access shall be further defined and described by notes added to the plat which set forth the limits of public liability and responsibility to properties and citizens which are served by such accessways. These notations shall include, but shall not be limited to the following:

1. The permanent access easement is to be privately maintained by the owners and not by the Government of Bradley County.

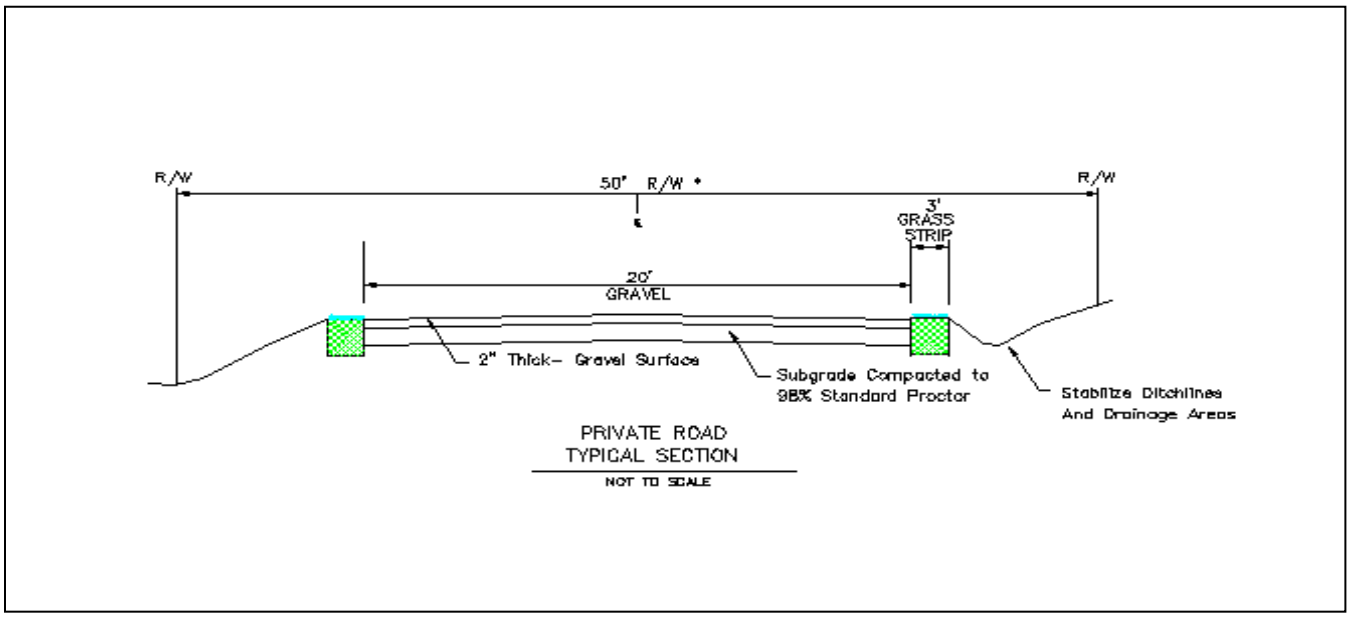
2. The owners are responsible for providing for all required utilities and services to the public road. The Government of Bradley County is not responsible for providing services beyond the limits of the public road.

D. For subdivisions which have private roads upon which more than six lots, including lots of record, abut or have access, the private roads and their easements or rights-of-way shall meet the widths and the same construction requirements specified for roads which are to be publicly-maintained (See Bradley County Subdivision Regulations Article 6).

E. For subdivisions that have private roads upon which six or less lots, including lots of record, abut or have access, the private roads and their easements or rights-of-way shall meet the construction requirements on page 2.

F. All road requirements shall be completed and approved by the Road Department Superintendent or his/her designee prior to signing of the subdivision plat by the Secretary of the Bradley County Regional Planning Commission.

G. Private roads shall have signs that must have a minimum of six (6) inch high white blades with black reflective letters. The name of the road must be approved through the Bradley County Planning Office to prevent duplicated road names.



1. UTILITIES. All required utilities must be installed prior to completion and testing of subgrade (See Bradley County Subdivision Regulations Article 6).

2. SUBGRADE. The subgrade must be minimum of 20 feet wide. The subgrade compaction must meet a 98% standard Procter. The owner/developer shall furnish compaction tests by a certified laboratory at their own expense. The Road Department will maintain a list of certified laboratories.

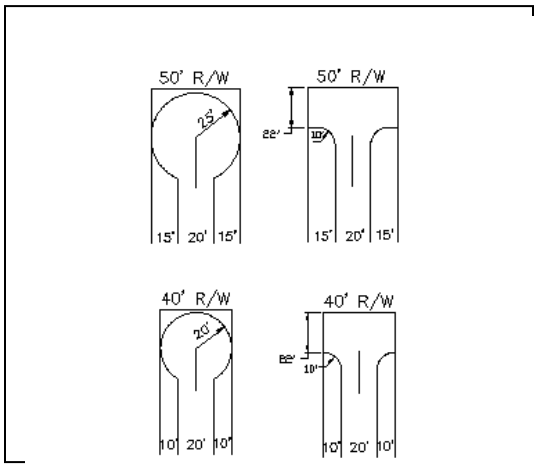
3. ROW WIDTH. For roads of less than 1,000 feet in length, a 40-foot minimum easement or right-of-way width is required. For roads of more than 1,000 feet in length, a 50-foot minimum easement or right-of-way width is required.

4. ROAD SURFACE. The road surface shall be a minimum of two inches of crusher run gravel and the road surface shall have a minimum width of 20 feet.

5. DRAINAGE. Drainage facilities determined by a surveyor or engineer shall be adequate to handle a flood of a 25-year frequency.

6. GRADE. The maximum road grade shall be fifteen (15) percent.

7. TURNAROUND. For cul-de-sacs, a minimum of a "Y" turn-around shall be required as shown in the drawing below.



APPENDIX C

LETTER OF CREDIT
BRADLEY COUNTY

_____
(date)

Bradley County Regional Planning Commission
P. O. Box 1167
Cleveland, TN 37364

Re: Letter of Credit No. _____

_____(Subdivision/Name)

:

We, _____ (financial institution), hereby establish our IRREVOCABLE LETTER OF CREDIT in favor of Bradley County, Tennessee, as Beneficiary for the account of _____ (developer) for the completion of roads in _____ (subdivision name) located in Bradley County, Tennessee, up to the aggregate amount of _____ DOLLARS ($_____) available by your draft on site.

Drafts are not to be presented for collection unless payment is not made to Bradley County for roads completed by _____ (developer) within the prescribed terms for completion of the roads as set forth in the Bradley County Subdivision Regulations and other governmental specifications and regulations related to said roads. Drafts presented for payment under this Letter of Credit are to be accompanied by an affidavit executed under oath by a duly authorized officer of Bradley County as beneficiary indicating that the work has not been completed as required and that payment is due to Bradley County for work to be completed by or completed by Bradley County for the above project.

Drafts drawn under this Letter of Credit must be marked "Drawn under _____ (financial institution) _____ (address) Letter of Credit No. _____ and the amount and date of each draft must be endorsed on the back hereof by the negotiating bank.

This Letter of Credit expires at the close of business on _____ (date) and drafts must be presented prior to the expiration. However, this Letter of Credit shall be automatically renewable for additional six (6) month periods unless amended by the financial institution as follows:

- The financial institution must provide Bradley County as beneficiary a thirty (30) day written notice of its intention to amend the Letter of Credit at its initial expiration or next renewal. Failure to provide such written notice or failure to provide such written notice in the specified time will automatically constitute renewal of the Letter of Credit.

- The financial institution may amend the Letter of Credit in one of the following ways:
  (a) it may be cancelled by the financial institution upon the written agreement with Bradley County as beneficiary that the roads in above-named subdivision have been satisfactorily completed;
  (b) it may be paid to Bradley County as beneficiary in the aggregate amount or in a lesser amount for the remaining work to be completed as agreed to in writing by Bradley County.

Except so far as otherwise expressly stated, this documentary credit is subject to the "Uniform Customs and Practices for Documentary Credit" (1993 Revision) fixed by the International Chamber of Commerce (Brochure No. 500).

We, _____ (financial institution), hereby engage as the drawers and/or bona fide holders that drafts drawn and negotiated in conformity with the terms of this credit will be duly honored for presentation.

Sincerely,

_____ (Financial Institution)
By:_____ (Name)
_____ (Title)

APPENDIX D- F
REMOVED

APPENDIX G

RULES OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION BUREAU OF ENVIRONMENT DIVISION OF WATER SUPPLY
CHAPTER 1200-5-1 PUBLIC WATER SYSTEMS

Rule 1200-5-1-.17
Section 18

All community water systems planning to or having installed hydrants must protect the distribution system from contamination. All water mains designed for fire protection must be six inches or larger and be able to provide 500 gallons per minute with 20 pounds per square inch residual pressure. Fire hydrants shall not be installed on water mains less than six inches in diameter or on water mains that cannot produce 500 gpm at 20 psi residual pressure unless -the tops are painted red. Out-of-service hydrants shall have tops painted black or covered with a black shroud or tape.

Existing Class C hydrants (hydrants unable to deliver a flow of 500 gallons per minute at a residual pressure of 20 pounds per square inch (psi) shall have their tops painted red by January 1, 2008.

The water system must provide notification by certified mail at least once every five years beginning January 1, 2008, to each fire department that may have reason to utilize the hydrants, that fire hydrants with tops painted red (Class C hydrants) cannot be connected directly to a pumper fire truck. Fire Departments may be allowed to fill the booster tanks on any fire apparatus from an available hydrant by using the water system's available pressure only (fire pumps shall not be engaged during refill operations from a Class C hydrant).