

SUBDIVISION REGULATIONS

September 1988

Norris, Tennessee

**Retyped August 2023
Ver. 2023-1**

RESOLUTION

A RESOLUTION AMENDING ARTICLE III
OF THE SUBDIVISION REGULATIONS OF THE
CITY OF NORRIS, TENNESSEE

WHEREAS, in accordance with the Tennessee Code Annotated, Section 13-4-303, the Norris Municipal Planning Commission has the authority to amend the subdivision regulations from time to time; and

WHEREAS, such regulations are necessary to ensure the public health, safety, and welfare through sound development practices in accordance with minimum standards of design.

NOW, THEREFORE, BE IT RESOLVED that the Norris Municipal Planning Commission does hereby amend the Subdivision Regulations of the City of Norris, Tennessee according to the changes indicated below.


Section 1. Subsection C.1, Lot Arrangement, in Article III shall be deleted in its entirety and replaced by the following:

1. Lot Arrangement. Insofar as practicable, side lot lines shall be at right angles to straight street lines or radial to curved street lines. Each lot shall have a frontage of at least seventy-five (75) feet on a street or road right of way. No part of a lot shall be less than seventy-five (75) feet in width between the property line fronting the right of way and the building line. At the building line every lot shall be at least seventy-five (75) feet in width.


NOW, THEREFORE, BE IT FINALLY RESOLVED that this resolution shall take effect immediately, the public welfare requiring it.

Public Hearing Date December 6, 1999

Adopted Date December 6, 1999



Chairman



Secretary

PREPARED BY THE
NORRIS MUNICIPAL PLANNING COMMISSION

Jerry Crossno, Chairman

Roger Bolinger, Mayor

Dean Hackler

Mike Brady

Sally Jackson

Walter Duerksen

Bruce Rowland

Adopted

September 7, 1988

ASSISTED BY THE
TENNESSEE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
LOCAL PLANNING ASSISTANCE OFFICE
EAST TENNESSEE OFFICE
KNOXVILLE, TENNESSEE

NO EXCEPTIONS

All plats must be submitted to the city a minimum of seven (7) days prior to the meeting. The commission will not entertain special meetings to consider plat approvals.

SUBDIVISION REGULATIONS

CITY OF NORRIS

TENNESSEE

Adopted by

Norris Municipal Planning Commission

CONTENTS

ARTICLE I.

PURPOSE, AUTHORITY, AND JURISDICTION

A. Purpose

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

Copies of the Zoning Ord1nance and map are on file in the city office of Norris, Tennessee.

B. Authority

These subdivision regulations are adopted under the authority granted by Title 13, Sections 13-4-301 through 13-4-309 of the Tennessee Code Annotated. The Planning Commission has fulfilled the requirements set forth in these acts as prerequisite to the adoption of such standards.

These regulations provide for procedures and standards by which the Planning Commission can consider and equitably appraise all proposed plats for land subdivision and by which the prospective developer may be guided in land subdivision, plat preparation, review, and approval requirements.

C. Jurisdiction

These regulations shall govern all subdivision of land within the City of Norris. Within these standards, the term "subdivision" shall mean the division of a tract or parcel of land into two or more lots, sit.es, or other divisions for the purpose, whether immediate or future, of sale or building development, and includes resubdivision and, when appropriate to the context, relates to the process of subdividing or to the land or area subdivided.

ARTICLE II.

PROCEDURE FOR PLAT APPROVAL

A. General

The owner of any land lying within the area of jurisdiction of the Norris Planning Commission who wishes to subdivide or develop such land shall seek approval by the Planning Commission, according to the following procedures:

1. Informal consultation. The subdivider or developer should consult early and informally with the Planning Commission for advice and assistance prior to submitting any plat. This will enable him to become thoroughly familiar with these regulations, the major street and road plan, and other official plans or public improvements which affect the area. Such informal consultation should prevent unnecessary and costly revisions.
2. Submission of preliminary sketch plat. Prior to making any street improvements or installing any utilities, the prospective subdivider shall submit to the Planning Commission a preliminary plat as provided in Section B of this article. Where circumstances warrant, the Planning Commission may modify the herein contained requirements in accordance with Section C of Article IV.
3. Submission of final plat. After the Planning Commission approves the preliminary plat, the subdivider may proceed with preparation of the final plat and other documents required in connection therewith as provided in Section C of this article and with improvements to the property as set forth in Article IV. No final plat shall be approved by the Planning Commission until either:
 - a. The required improvements listed in Article IV are constructed in satisfactory manner and approved by the local approving agent: or
 - b. In lieu of such prior construction, the Planning Commission has accepted a security bond in an amount equal to the estimated cost of installation of the required improvements, whereby improvements may be made and utilities installed without cost to the local government in the event of default by the subdivider or developer (see Article IV D).

B. Preliminary sketch plat (see Fig. 1)

1. Submission. The subdivider shall submit to the chairman of the Planning Commission at least seven (7) days in advance of the regular meeting day twelve (12) copies of a preliminary sketch plat of the proposed subdivision drawn to a scale of one (1) inch equals one hundred (100) feet or as specified by the planning commission.
2. Contents. This preliminary sketch plat shall meet the general requirements and minimum standards of design set forth in Article III and minimum standards for improvements set forth in Article IV and shall give the following information.:

- a. Topography, showing contours at vertical intervals of not more than five (5) feet, except when specifically not required by the Planning Commission. The topography shall be certified as accurate by a registered engineer or surveyor in the State of Tennessee.
 - b. Name, location, and acreage of the proposed subdivision; acreage per lot, name and addresses of the owner or owners; and name of designer of the plat.
 - c. Date, approximate north point, and graphic scale.
 - d. Proposed utility layouts (sewers, water, gas, and electricity) showing feasible connections to the existing or any proposed utility systems. Sewer profiles will be required to establish feasibility of proposed sewage system.
 - e. Location of existing site features: property lines, utilities, easements, streets, buildings, streams, wet-weather springs (if known), sewers, water mains, bridges and drainage structures, zoning both on land to be subdivided or developed and on adjoining land, and names of adjoining property owners or subdivisions.
 - f. Names, locations, widths and other dimensions of proposed streets, sidewalks, easements, parks and other open spaces, reservations, lot lines, block numbers, drainage requirements, and building setback lines (in accordance with the City of Norris Zoning Ordinance). Street profiles as described, in Article II C2g may be required by the Planning Commission.
 - g. Location sketch map showing relationship to the surrounding area, including distances and bearings to existing monuments or corner markers in surrounding areas.
 - h. If any portion of the land being subdivided is subject to flood, as defined in Article III, Section A, the area subject to flood shall be shown.
 - i. The acreage of the land to be subdivided.
3. **Action by the Planning Commission.** Within thirty (30) days after submission of the preliminary sketch plat, the Planning Commission will review it and indicate its approval, disapproval, or approval subject to modifications. The Planning Commission review may include a joint meeting with the Norris Water Commission to discuss the proposed water and sewer system layout. Prior to any action by the planning commission, the applicant shall be notified within five (5) days of the commission's consideration of the plat.

Failure of the Planning Commission to act on the preliminary sketch plat within this thirty (30) days will be deemed approval of the plat. One (1) copy of the sketch plat will be retained in the files of the Planning Commission; and one (1) copy will be returned to the subdivider with notification of approval, disapproval, or approval subject to modification, specifically stating any modifications required.

The Norris Water Commission and the Tennessee Department of Public Health must

approve the proposed water and sewer system layout. The drawings of the proposed systems shall be forwarded to the approving agencies by the Planning Commission. On some projects the obtaining of approval or comments may require longer than the 30 day period allotted for action by the Planning Commission. In this event the Planning Commission may act subject to the approval of the proposed systems by the Norris Water Commission and the Tennessee Department of Public Health.

A subdivider may omit the submission of a preliminary plat, submitting only a final plat if all the following conditions are met:

- a. The proposed subdivision does not contain more than five (5) lots, sites, or divisions.
- b. All public improvements as set forth in Article IV are already installed or because of the nature of the development are deemed not necessary by the Planning Commission. (Any construction, installation, or improvement of any public services shall require the submission of a preliminary plat).
- c. The subdivider has consulted informally with the Planning Commission or its staff or consultant for advice and assistance before preparation of the final plat and its formal application for approval.

The approval of the preliminary sketch plat by the Planning Commission serves as a basis for preparation of the final plat but does not constitute acceptance of the final plat, and said approval will not be indicated on the preliminary plat.

Action on the preliminary plat shall be noted in the minutes of the Planning Commission meeting.

The approval of the preliminary sketch plat shall lapse unless a final plat based thereon is submitted within one (1) year from the date of such approval unless an extension of time is applied for and granted by the Planning Commission.

FIGURE I

PRELIMINARY SKETCH WESTVIEW ADDITION SECTION "A"

THE
PRELIMINARY PLAT

SHALL SHOW:

Name, location, owner and
designer.

Date, north point and
graphic scale.

Location of property
lines, roads, sidewalks,
existing utilities, etc.

Present zoning
classification.

Names of adjoining
properties.

Names of new streets.

Dimensions, lot lines
and building setbacks.

Location of proposed
culverts.

Contours at 5' intervals

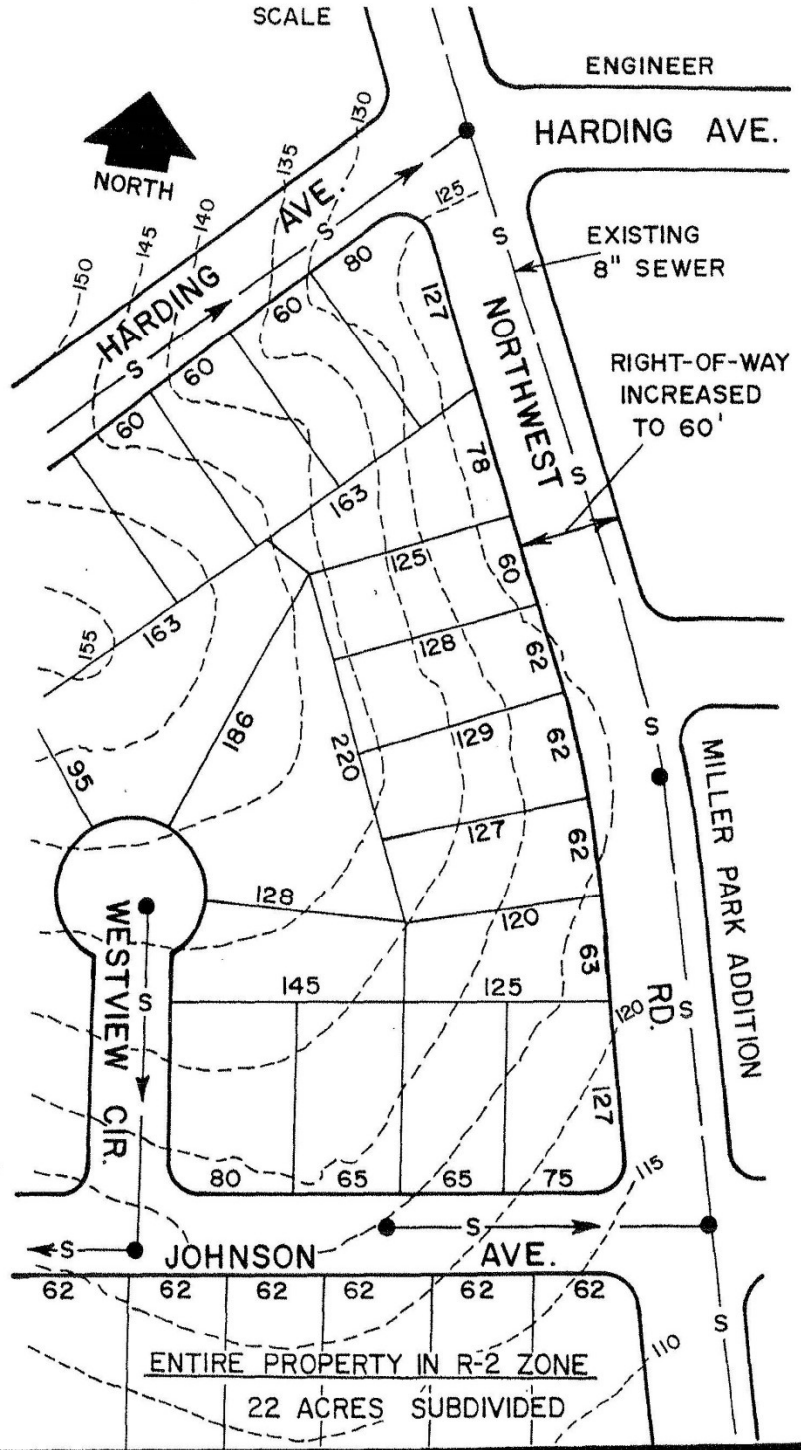
Acreage of land subdivided.

Acreage of lots

Location sketch map.



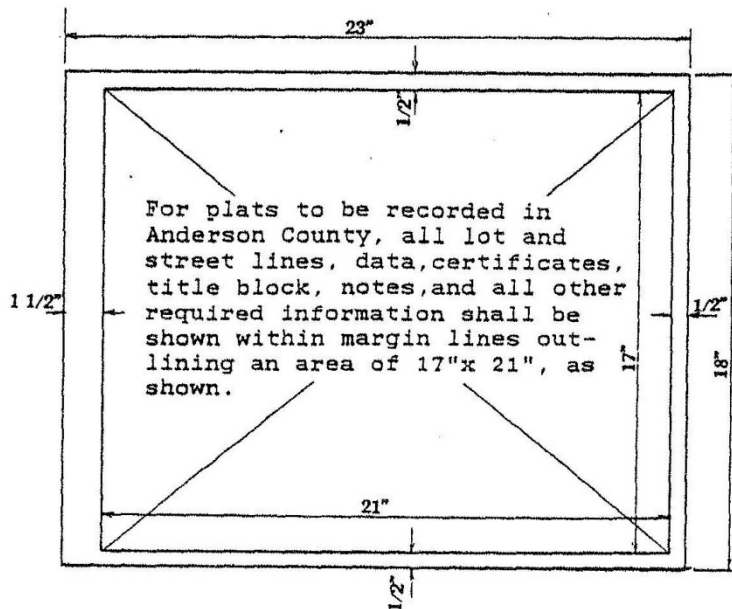
SCALE



C. Final Plat (see Fig. 2)

1. Submission. At least ten (10) days prior to the meeting at which it is to be considered, the subdivider shall submit to the Planning Commission twelve (12) copies of the final plat, which shall follow the approved layout of the preliminary plat with such modifications as the Planning Commission and the subdivider shall have agreed upon. Each copy of the final plat shall have attached any street profiles or other plans or documents as may be required by the Planning Commission. One copy shall consist of the original drawings or documents or a photo print thereof. When the plat has been approved by the Planning Commission this copy will be returned to the subdivider, with the approval of the Planning Commission certified thereon (signature of the secretary), for filing with the County Register as the official plat of record. A second copy containing the certification of the Planning Commission will be returned to the subdivider for his records and the third and fourth will be retained in the records of the Planning Commission. All plats, for presentation to the Planning Commission, shall be prepared on a standardized plat sheet available at city offices.

2. Contents. The final plat shall conform substantially to the preliminary sketch plat as approved; however, if desired by the subdivider, it may constitute only that portion which he chooses to record and develop at the time, provided that such portion conform to all requirements of these regulations. The final plat for recording shall be drawn to a scale of one (1) inch equals one hundred (100) feet, or as specified by the planning commission, on sheets obtained from the City of Norris, drawn as shown in the following figure to correspond to local plat book dimensions. When more than one sheet is required, an index sheet of the same size shall be filed showing the entire subdivision.



The final plat shall show:

- a. Name and location of subdivision, date, graphic scale, and true north points, closure error, and acreage per lot.

- b. Location sketch map showing site in relation to area, with distances and bearings to existing corners or monuments.
 - c. Names and locations of adjoining subdivisions and streets and location and ownership of adjoining unsubdivided property.
 - d. Right-of-way lines and classifications of all streets, sidewalks, block numbers, lot lines, building setback lines, lots numbered in numerical order, house numbers, reservations, easements, areas dedicated to public use, and any sites for non-residential use (with notes stating purpose and any limitations). Lots or parcels which are not intended for sale and which are reserved for or dedicated to the use of the public may be shown as "out" lots and designated by letters.
 - e. All dimensions to the nearest one-hundredth (1/100) of a foot and all angles to the nearest minute.
 - f. Location and descriptions of monuments.
 - g. Sufficient data to determine readily and reproduce on the ground the location, bearing, and length of every street, sidewalk, lot line, boundary, line, block line, and building setback line, whether curved or straight. This shall include the radius, central angle, and tangent distance for the center line of curved streets. Profiles of all streets showing natural and finished grades drawn to a scale of not less than one (1) inch equals one hundred (100) feet horizontally and one (1) inch equals twenty (20) feet vertically may be required by the Planning Commission.
 - h. If any portion of the land being subdivided is subject to flooding, as defined in Article III, Section A, the area subject to flood shall be shown.
3. Certification (Forms 1-6, Appendix A). The following information properly signed or ready for signature shall be presented with the final plat.
- a. Ownership and dedication (by owner and/or owners).
 - b. Engineering accuracy (by registered engineer or registered surveyor).
 - c. Acceptable installation of streets and other improvements (by authorized representative of the Norris City Council) or execution of performance bond in lieu thereof.
 - d. Acceptable installation of utilities (by chairman of the Water Commission or other approving agency) or execution of performance bond in lieu thereof.
 - e. Approval for recording (by secretary of the Planning Commission).
 - f. If the installation is complete as built, drawings of the water and sewer system shall be presented with the final plat (see also Article IV A4f and IV A4g).

4. Public Acceptance. Approval of the final plat shall not constitute acceptance by the public authorities of the dedication of any improvements, roads, sidewalks, ways, or grounds; however, upon satisfactory completion of all required improvements, including as-built installation drawings, the Planning Commission will recommend such acceptance.

FIGURE 2

THE
FINAL PLAT

SHALL SHOW:

Streets, lots, sidewalks,
setback lines, lot numbers,
lot sizes, etc.

Sufficient engineering
data to reproduce any
line on the ground.

Dimensions, angles, and
bearings.

Monuments.

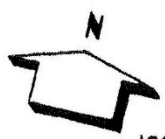
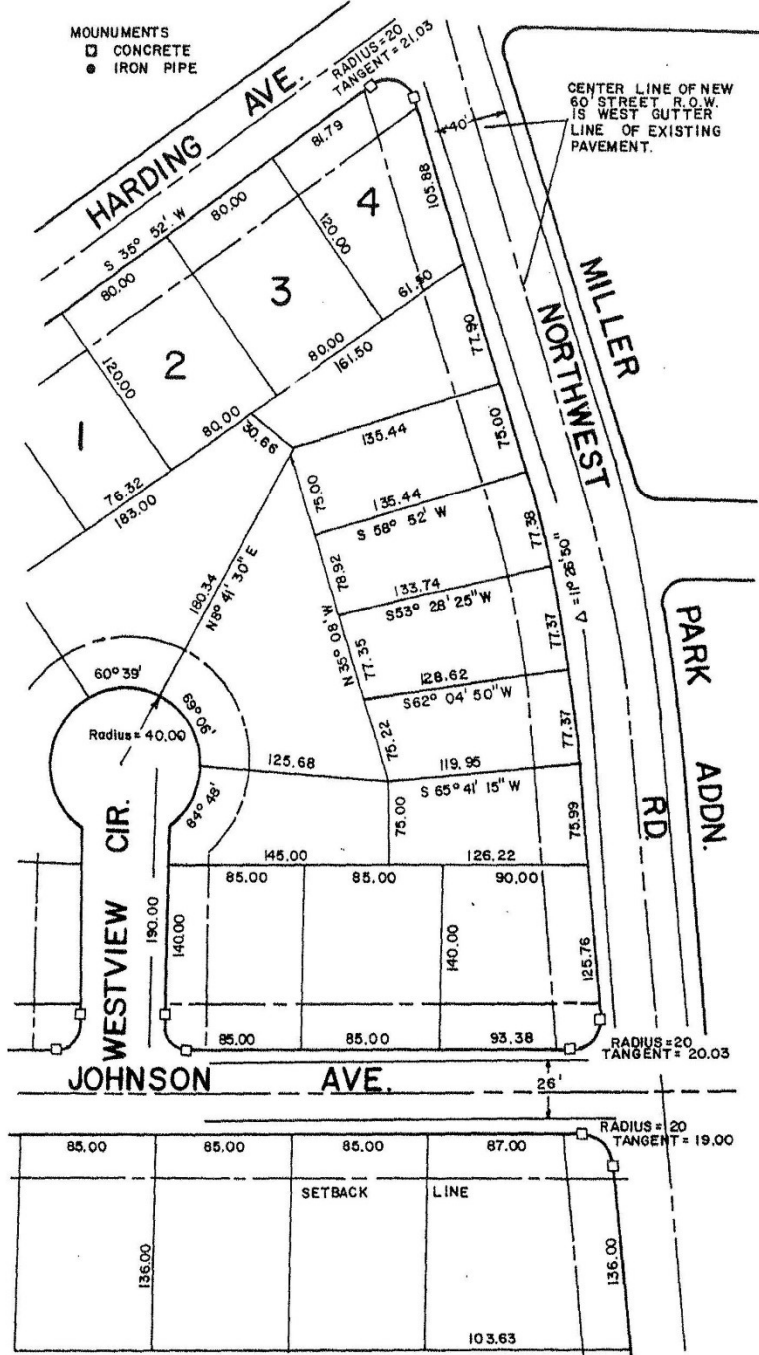
Names of adjoining
properties.

Date, title, name and
location of subdivision.

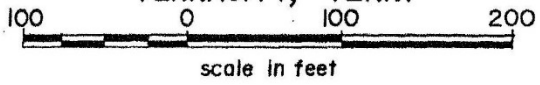
Graphic scale and true
north point.

Closure error—average
lots size, deed book
and page.

Location sketch map and
certificates as required.



SECTION "A"
WEST HILLS ADDITION
TENNACITY, TENN.



ARTICLE III.

GENERAL REQUIREMENTS AND MINIMUM STANDARDS OF DESIGN

A. Suitability of the land

1. Land physically unsuitable. Land which the Planning Commission has found to be unsuitable for development because of flooding, bad drainage, steep slopes, rock formations, and other such features which may endanger health, life, or property, aggravate erosion, increase flood hazard, or necessitate excessive expenditure of public funds for supply and maintenance of services shall not be approved for subdivision unless adequate methods are formulated by the developer for meeting the problems created by subdivision of such land.
2. Land unsuitably located. The Planning Commission shall not approve what it considers to be scattered or premature subdivision of land because of lack of, or adverse effect on, water supply or sewage disposal, schools, good transportation, other public services, or because of excessive expenditures of public funds for the supply or maintenance of such services.
3. Inadequate access. The Planning Commission shall not approve a subdivision which would require extension of existing streets or require the installation of new streets by the city to provide adequate access to the subdivision.

B. Streets

1. Conformity to the major street and road plans. The location and width of all streets and roads shall conform to the official major street and road plans, copies of which are on file in the city office.
2. Relation to adjoining street and sidewalk system. The proposed street and sidewalk system shall extend existing streets and sidewalks at the same or greater width, but in no case less than the required minimum width specified hereinafter.
3. Street widths. The minimum width of right-of-way, measured from lot line to lot line, and pavement surface shall be as shown on the major street and roads plans, or if not shown on such plan, shall be not less than the following:
 - a. Arterial streets – 80' right- of- way and 31' pavement. Arterial streets are those which serve as major traffic corridors into, through, and out of the planning area.
 - b. Collector streets - 60' right-of-way and 27' pavement. Collector streets are these which carry traffic from minor streets to the major access streets and include the principal streets of a residential development and streets for major circulation within such development.

- c. Residential streets - 50' right-of-way and 24' pavement. Residential streets are these which are used primarily for access to the abutting residential properties and designed to discourage their use by through traffic.
 - i. Loop - 40' right-of-way and 20' pavement; provided said street is 1,200' or less in length or serving not more than 24 lots or residential structures.
 - ii. Cul-de-sac - 40' right-of-way and 18' pavement; said street not to exceed 800' in length. The cul-de-sac shall have a 100' diameter right-of-way and a 75' diameter pavement.
- d. Alleys not less than 20' right-of-way and 12' pavement. Alleys are minor public ways used primarily for service access to the back or side of properties otherwise abutting on a street. See Article III B14 for restrictions on alleys.
- e. Design of rights-of-way and pavement surface shall be in accordance with Figures 3 and 4.

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

- 4. Additional width on existing streets. Subdivisions that adjoin existing streets shall dedicate additional right-of-way to meet the above minimum street width requirements:
 - a. The entire right-of-way shall be provided where any part of the subdivision is on both sides of the existing street.
 - b. When the subdivision is located on only one side of an existing street, one-half of the required right-of-way, measured from the center line of the existing roadway, shall be provided (see Fig. 5).
 - c. Street widths through proposed neighborhoods or business areas shall be increased ten (10) feet on each side, at the discretion of the planning commission, in order to provide for the movement of vehicles transgressing parking and loading areas without interference to traffic. Increases greater than 10 feet may be required through industrial areas.
- 5. Restriction of access. When a tract fronts on an arterial street or highway, the Planning Commission may require such lots to be provided with frontage on an access street as shown in Fig. 6 (see also III B4c).

FIGURE 3
TYPICAL RIGHT-OF-WAY AND STREET CROSS SECTION WITH CURBS

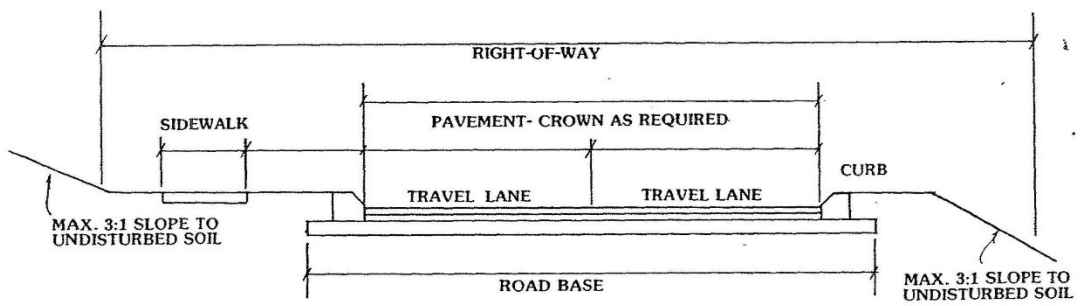
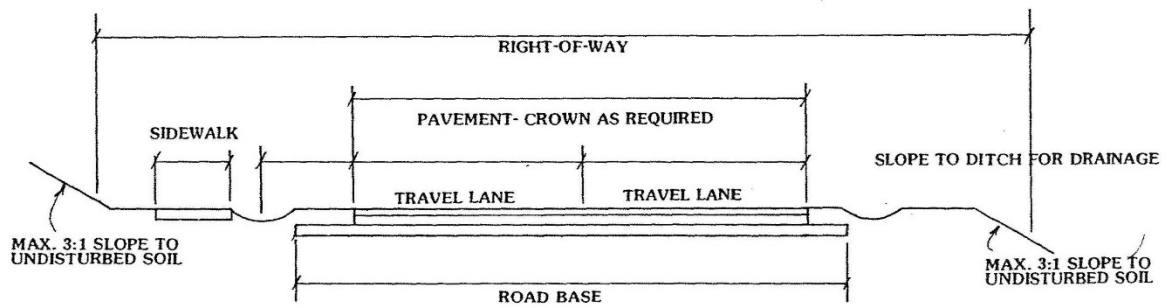


FIGURE 4
TYPICAL RIGHT-OF-WAY AND STREET CROSS SECTION WITHOUT CURBS



6. Grades, elevations, and drainage

- a. Grades on arterial and collector streets shall not exceed seven (7) percent. Grades on other streets shall not exceed ten (10) percent (see Fig. 7).
- b. All streets must be so designed as to provide for the discharge of surface water from the right-of-way by proper grading and drainage. Drainage openings shall be designed so as not to restrict the flow of water (see also Article IV A5).

7. Horizontal curves. Where a deflection angle of more than ten (10) degrees in the alignment of a street occurs a curve of reasonably long radius shall be introduced. On all streets the center line radius of curvature shall not be less than one hundred (100) feet (see Fig. 8).

8. Vertical curves. All changes in grade shall be connected by a vertical curve of minimum length .in feet equal to f.i.ve (5) times the algebraic difference In rates of grade (see Fig. 9).

9. Intersections. Street intersections shall be as nearly at right angles as is practicable, and no intersection shall be at an angle of less than sixty (60) degrees (see Fig. 10).

Property line radii at street intersections shall not be less than twenty (20) feet and where the angle of street intersection is less than seventy-five (75) degrees the Planning Commission may require a greater radius.

10. Tangents. A tangent at least one hundred (100) feet long shall be introduced between reverse curves on major access and collector streets (see Fig. 11).

11. Streets jogs. Street jogs with center line offsets of less than two hundred (200) feet shall not be allowed (see Fig. 12).

12. Dead-end streets or cul-de-sacs

- a. Minor terminal streets or courts designed to have one end permanently closed shall be no more than eight hundred (800) feet long unless necessitated by topography. They shall be provided at the closed end with a turn-around having an outside roadway diameter of at least seventy-five (75) feet and a street right-of-way diameter of at least one hundred (100) feet (see Fig. 13).
- b. Where, in the opinion of the Planning Commission, it is desirable to provide for street access to adjoining property, proposed streets shall be extended by dedication to the boundary of such property. Such dead-end streets shall be provided with a temporary paved turn-around having a diameter of at least forty (40) feet (see Fig 13).

FIGURE 5

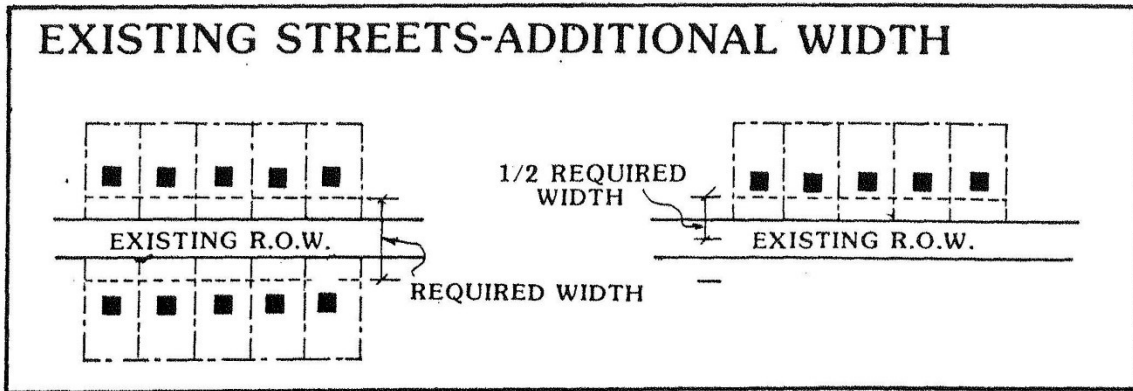


FIGURE 6

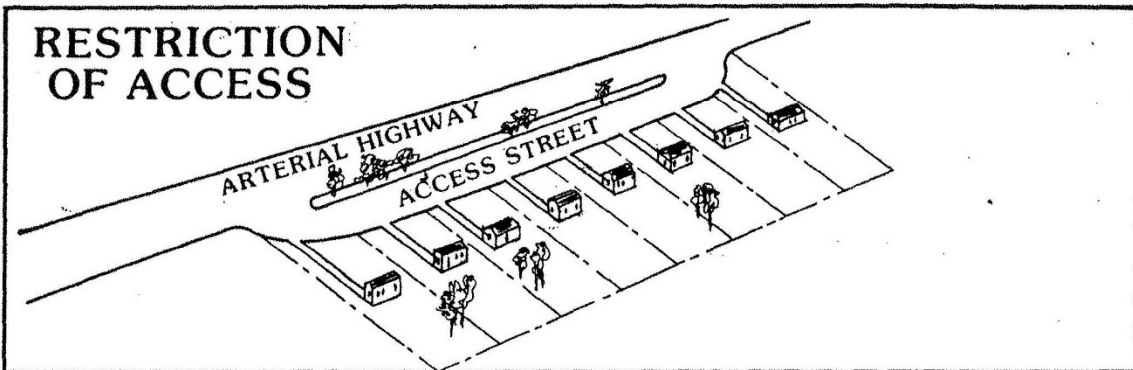


FIGURE 7

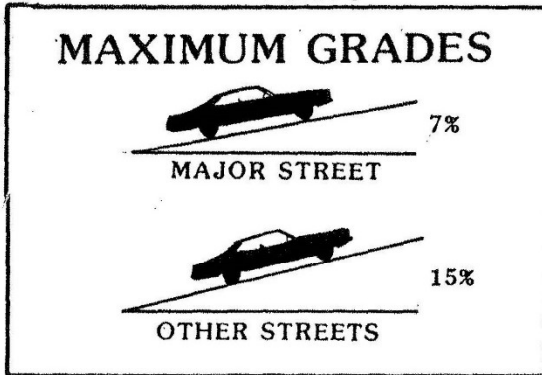


FIGURE 8

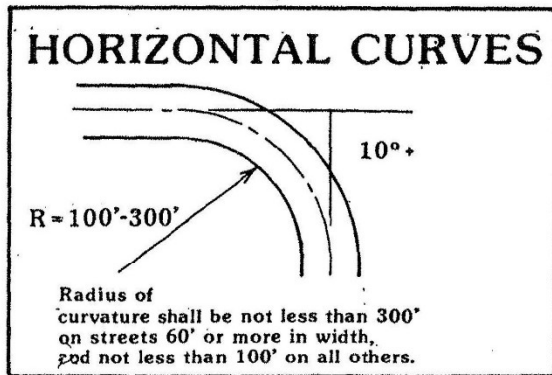


FIGURE 9

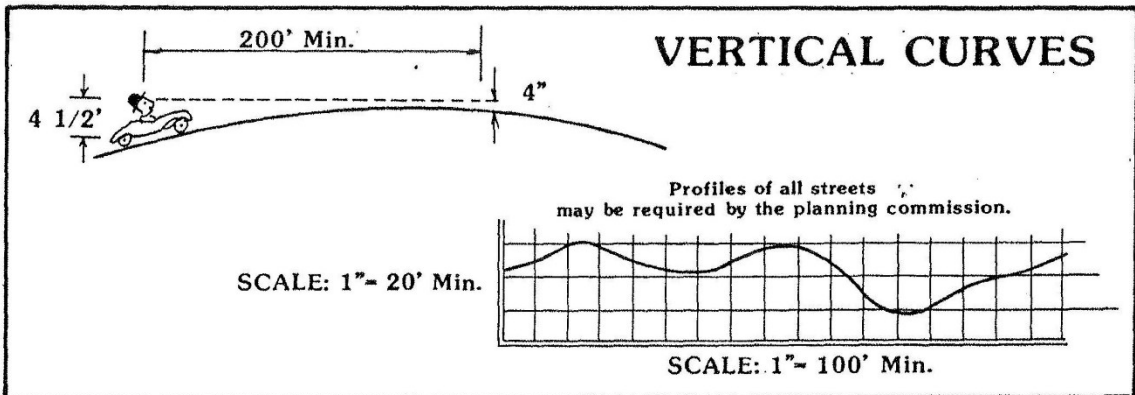


FIGURE 10

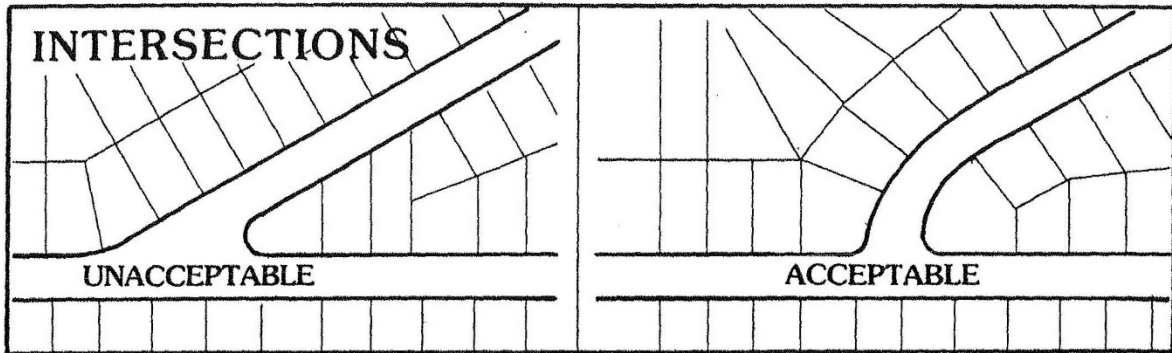


FIGURE 11

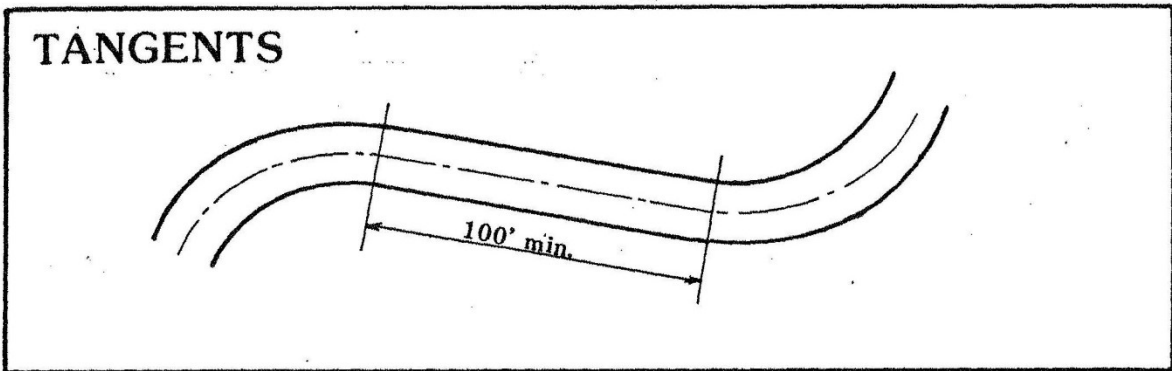


FIGURE 12

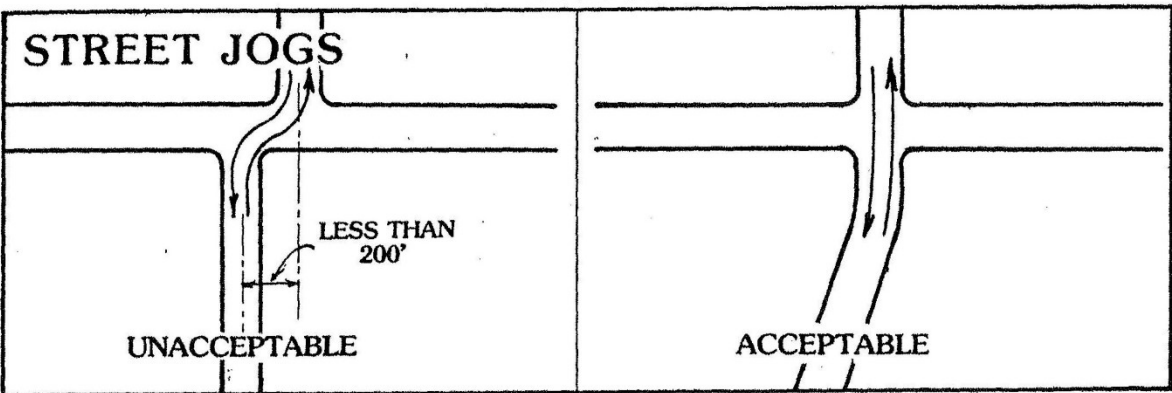
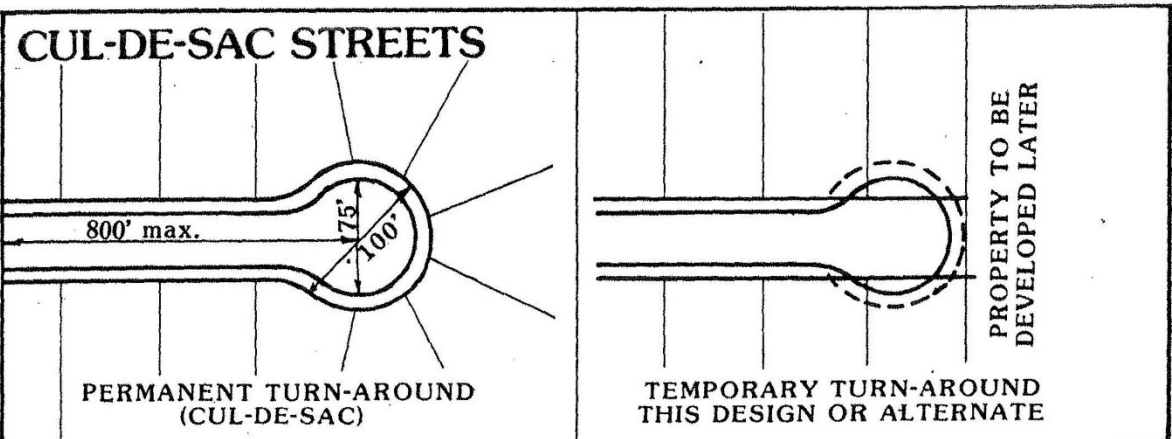


FIGURE 13



13. Private streets and reserve strips. Private streets may be platted in any subdivision, provided said street shall be designed and constructed to meet or exceed requirements for public streets. The plat shall indicate whether streets are private and the manner in which such streets shall be permanently maintained. Subdivided property shall be served from a publicly dedicated or private street. There shall be no reserve strips controlling access to public ways or adjoining properties, except where the control of such strips is definitely placed with the community under conditions approved by the Planning Commission.
14. Alleys. Alleys may be required by the Planning Commission (if deemed desirable) to the rear of all lots used for business and industrial purposes but shall not be provided in residential blocks except where the subdivider produces evidence satisfactory to the Commission of the need for alleys (see also III B3e).
15. Blocks
 - a. Length. Blocks shall not exceed 1,320 feet nor be less than four hundred (400) feet in length, except as the Planning Commission considers necessary to secure efficient use of land or a desirable street pattern. In blocks eight hundred (800) feet or greater in length the Planning Commission shall require and specify location of one or more public walks across the block having a right-of-way not less than ten (10) feet wide.
 - b. Depth. Blocks shall be deep enough to allow two tiers of lots at least the minimum depth as required by the Norris Zoning Ordinance.
 - c. Easements. Easements of appropriate widths for future roads and utilities shall be provided to allow for the logical development of land not included in the subdivision.

C. Lots

1. Lot arrangement. Insofar as practicable, side lot lines shall be at right angles to straight street lines or radial to curved street lines. Each lot shall have a frontage of at least forty (40) feet on a public street or road which is not less than fifty (50) feet in width and shall be at least seventy-five (75) feet wide at the building setback line as designated on the final plat.
2. Minimum lot size. The size and shape of lots shall not be less than those required in the zoning district in which the property is located. Corner lots shall have such extra width as may be necessary for the observance of required building setbacks from the side street (see also III C4).
3. Building setback lines. The depth of building setback lines from the property line shall be shown on the plat and shall not be less than the minimum requirements of the Zoning Ordinance.

Where easement widths are not already established, the setback distance from electric transmission lines shall be as follows:

<u>Voltage of line</u>	<u>Minimum building setback from center of transmission line</u>
46 KV	37-1/2 feet
69 KV	50 feet
161 KV & over	75 feet

4. Lots not served by public water or sanitary sewers
 - a. Residential Lots not served by a public water supply shall have a minimum size of ten (10) acres.
 - b. Residential lots not served by a public sewer shall have a minimum size of twenty thousand (20,000) square feet (see also IV A6).

5. Commercial or industrial purposes
 - a. Properties reserved or platted for business or industrial purposes shall be adequate in size to provide for the off-street service and parking facilities required by the type of use and development contemplated and shall be in accordance with the Zoning Ordinance. Platting of individual lots should be avoided in favor of an overall design of the land to be used for such purposes.
 - b. Land shall not be platted for commercial or industrial purposes unless it meets the requirements of the Zoning Ordinance and unless the subdivider can demonstrate to the Planning Commission:
 - i. A site arrangement that prevents undue interference with through traffic. Each industrial subdivision or area shall utilize a single collector for all heavy traffic between the area and the general system of streets and roads.
 - ii. An integrated parking area.
 - iii. Appropriate landscaping and screening to provide insulation against any adverse effect on any present or future adjacent residences.
 - iv. A parcel size sufficient in area to allow future expansion.

D. Public use and service areas

1. Public open space. The Planning Commission may require the dedication or reservation of open space within the subdivision up to a total of ten (10) percent of the gross area of the plot, including water frontage, for park, school, or recreational purposes.
2. Easements for utilities, drainage, and pedestrian traffic.
 - a. Utilities. Except where alleys are permitted for utility easements, easements not less than twelve (12) feet in width, shall be required along rear and side lot lines

or across lots where necessary for poles, wire, conduits, and storm and sanitary sewers.

- b. Pedestrian. In such cases and at such locations as the Planning Commission deems advisable, public easements along side or rear lot lines shall not be less than twelve (12) feet in width may be required for pedestrian or bicycle traffic to and from schools, neighborhood parks, and other public places.
 - c. Drainage. Where a subdivision is traversed by a stream or drainage channel there shall be provided a storm water easement of such width along each side of the stream as the Planning Commission deems necessary for the purpose of widening, deepening, protecting, relocating, or otherwise improving such drainage elements (see also V A5).
3. Community assets. In all subdivisions, due regard shall be shown for all natural features such as large trees and water courses and for historical spots and similar community assets which, if preserved, will add attractiveness and value to the property.

E. Large tracts or parcels

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

F. Group housing developments

A comprehensive housing development, including the large-scale construction of housing units together with necessary drives and ways of access, may be approved by the Planning Commission even though the project will have no standard street, lot, and subdivision layout, provided departure from the foregoing standards does not destroy their intent.

G. Waivers

See Article IV C.

H. Zoning or other standards

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

Wherever there is a discrepancy between minimum standards or dimensions noted herein and those contained in zoning standards, building code, or other official standards, the highest standard shall apply.

ARTICLE IV.

DEVELOPMENT PREREQUISITE TO FINAL APPROVAL

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

A. Required improvements

Every subdivision developer shall be required to grade and improve streets, alleys, build sidewalks, and to install monuments, storm water inlets, water system, curbs, and sewers in accordance with the standards outlined herein. For items and standards not described here, City of Norris standards shall apply; and if not covered by the city standards, currently dated Local Government Public Works Standards and Specifications.

1. Monuments and lot markers. Numbered concrete monuments four (4) inches in diameter or square, three (3) feet long with a flat top, shall be set.
 - a. At all corners of street rights-of-way lines.
 - b. At all points where such lines intersect the exterior boundaries of the subdivision and
 - c. At all corners of the plat.

The top of the monument shall have an indented cross to identify properly the location and shall be set flush with the finished grade. Lot corners not otherwise marked shall be marked with iron pipe or pins not less than three-fourths (3/4) inch in diameter and thirty-six (36) inches long and driven so as to be six (6) inches to twelve (12) inches above finished grade.

2. Street development. Every subdivision developer shall be required to grade and improve new streets and sidewalks.
 - a. Preparation of right-of-way. The full width of all roadways shall be prepared so that pavement and sidewalks can be constructed in such a manner that future extension of additional utilities or street improvements will not damage yards of abutting property (see Figs. 3 and 4). Abutting property shall be sloped to the right-of-way lines. To be acceptable, the gradient must be adequate to drain the lot without detrimental effect upon essential lot use and improvements, including sewage disposal. Conditions which would result in prolonged ponding of water at any season are not acceptable. Where surface water disposal is proposed by filtration into the ground, technical exhibits such as soil gradation analysis and infiltration tests may be required. Trees shall be preserved if they do not impair street visibility.

- b. Road and right-of-way development. The following standards will be required for the grading, soil stabilizing, preparation of the subgrade, priming, and surface treatment of all roads and rights-of-way.
- i. Grading and soil stabilizing. All roads shall be graded to such a width by the subdivider that pavements and sidewalks can be constructed on the same level plane, except that where special conditions, such as the presence of shade trees, or unusual topographic conditions warrant deviation from a level grade, the Planning Commission may grant such deviation. All boulders, tree stumps, organic material, soft clay, spongy material, and any other objectionable material shall be removed. This objectionable material shall be removed from within the right-of-way limits and disposed of in such a manner that it will not become incorporated in the fills, nor in any manner hinder operation of the roadway drainage system.
 - ii. Binding fill to original ground. In order to insure proper bond and prevent slipping between the original ground and the fill, the surface of the original ground shall be scarified to a reasonable depth. Where fills are made on hillsides or slopes, the slope of the original ground upon which the fill is to be placed shall be plowed or scarified deeply. Where the nature of the ground justifies taking,, greater precautions for binding the fill to the original ground, steps shall be cut into the original ground before filling is begun.
 - iii. Placing, spreading, and compacting fill material. The selected fill material shall be placed in layers which when compacted shall not exceed eight (8) inches. Each layer shall be spread evenly and shall be thoroughly blade-mixed during spreading to insure uniformity of material in each layer.
 - iv. Moisture content. The moisture content of the fill material shall be such that the fill can be compacted to maximum practical density. If the moisture content of the fill material is below the needed amount necessary to create the necessary density, the proper amount of water shall be added. Similarly, if the moisture content of the fill material is above the needed amount necessary to create the desired density, it shall be aerated by blading or other satisfactory method until the moisture content is satisfactory.
 - v. Placing and compacting. After each layer has been placed, mixed, and evenly spread, it shall be thoroughly compacted to maximum practical density. However, not less than 90 percent maximum density at optimum moisture will be acceptable for a depth of nine (9) inches below the subgrade under all proposed paving areas shown on the plans. Compaction shall be by means of tamping, sheepfoot rollers, multiple-wheel pneumatic-tired rollers, or other types of rollers or equivalent which will be able to compact the fill to the desired density.

- vi. Completion of general grading. Excavating of cut areas shall continue until these areas conform with the lines, grades, slopes, and typical cross-sections shown on the accepted plans. Placing, spreading, filling, and compacting areas to be filled shall also be continued alternately until these areas to be filled shall also be continued alternately until these areas conform with the lines, grades, and typical cross-sections shown on the accepted plans.

Banks of cuts and fills shall be graded to slopes not exceeding 3:1 (three horizontal to one vertical), except where unusual soil or topographic conditions warrant a deviation from these established maximum slopes, the Planning Commission may grant such deviation. Cuts and fills shall be fertilized and seeded and mulched (or in steep areas sodded or otherwise appropriately treated) with approved vegetation cover to retard erosion. The livelihood of such soil-fixing vegetation shall be guaranteed by the subdivider for a period of one (1) year.

- vii. Seasonal limits. No fill material shall be placed, spread, or rolled while the ground or fill is frozen or thawing or during unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until the moisture content and density of the fill are as previously specified.
- c. The base. The completed stabilized base shall have a compacted thickness of not less than those minimum standards specified in Table 1. The stabilized base shall be constructed according to the specifications of Appendix B.
 - d. Prime coat. After a thoroughly compacted and broomed base has been established, a prime coat shall be applied as follows:

Between April and November 15, at a temperature of 50 degrees and rising, Tar Grade RT-2 or RT-1 inclusive, or MC-1 or MC-2, shall be applied at the rate of four-tenths (4/10) gallon per square yard of base surface. The stone chips graded from one-half (1/2) inch down to No. 8 with no dust shall be applied at the rate of ten to fifteen (10 to 15) pounds per square yard, rolled until thoroughly compacted and left to cure for such time as the inspecting officer designated by the City, of Norris may direct, but not less than seven (7) days.
 - e. Binder Course. After the base course has been properly prepared and a prime coat applied, a binder course of hot plant mix asphaltic concrete shall be shaped and compacted in thickness specified in Table 1. The binder course shall meet specifications of Appendix C.
 - f. Wearing surface. The wearing surface shall consist of, or be equivalent to hot-mix bituminous paving finish course at compacted thickness as specified in Table 1. The wearing surface shall meet the composition and construction method specified in Appendix D.

Other types of wearing surfaces including concrete may be used to meet the requirements of these subdivision standards subject to the approval and conditions established by the Planning Commission.

Table 1

Roadway Construction Specifications

Norris, Tennessee

<u>Street Designations</u>	<u>Aggregate Base Course</u>	<u>Binder</u>	<u>Surface</u>
Residential Areas			
(a) Minor	6"	2"	1"
(b) Collectors & Arterials	8"	3"	2"
Commercial Areas	8"	3"	2"
Industrial Areas	10"	4"	2"

3. Sidewalks. Sidewalks shall be required as an integral part of a pedestrian traffic system. They shall be installed in accordance with the specifications in Appendix E or approved alternative. Sidewalks shall be located not less than one (1) foot from the property line to prevent interference or encroachment by fencing, walls, hedges or other planting or structures placed on property line at a later date. Widths shall be as follows:
 - a. Single family residential areas

Four (4) feet wide and four (4) inches thick
 - b. Multi-family or group housing developments

Five (5) feet wide and four (4) inches thick
 - c. Commercial areas

Twelve (12) feet wide and four (4) inches thick
4. Installation of utilities and driveways. After grading is completed and approved and before any base is applied, all of the underground work--water mains, gas mains, sewers, etc. -- and all service connections shall be installed completely and approved throughout the length of the road and across the width of the paved area.

- a. All connections to existing water mains or the existing sewer main system will be made by the Norris Water Commission personnel at the expense of the developer on an actual cost plus basis.
 - b. All water mains constructed shall be tested «under pressure in accordance with the Norris Water Commission specifications.
 - c. The minimum depth of water mains shall be thirty-six (36) inches.
 - d. No water mains shall be laid on rock until the rock has been covered by a minimum of six (6) inches of natural or manufactured sand.
 - e. All water mains shall be located within street rights-of-way, except as may otherwise be approved by the Norris Water Commission.
 - f. Each residential unit shall have a water service line from the main to the property line. The minimum size of the line shall be three-quarters (3/4) inch and shall be either copper Type K or plastic water service line. The Norris Water Commission reserves the right to approve the type and manufacturer of all plastic pipe as well as the fittings used with plastic installation. A corporation stop shall be installed at the main and a curb stop installed at the property line. An approved meter box shall be installed at grade over the curb stop. This location shall be noted on the as-built drawings.
 - g. Meters will be furnished by the Norris Water Commission at no cost to the subdivider. The meter box and yoke will be furnished and installed by the Norris Water Commission personnel at the time individual residences require water service in accordance with Section 4a above.
 - h. Power and telephone poles shall be installed in easements along rear property lines wherever possible (see also III D2).
 - i. All driveway approaches for houses to be built by the developer shall be cut and drained with the road construction.
5. Storm drainage. An adequate drainage system, including necessary open ditches, pipes, culverts, intersectional drains, drop inlets, bridges, etc., shall be provided for the proper drainage of all surface water, including effluent from wet-weather springs. Drains across the road shall be provided to accommodate all natural water flow, and shall be of sufficient length to permit full width roadway and the required slopes. The size opening to be provided are to be determined by Talbot's formula:

Talbot's Formula

$$A = C^4 M^3$$

Where A = Area of conductor (square feet)

C = Runoff index*

M = Area to be drained (acres)

* Runoff index

Mountainous terrain = 1.0

Hilly terrain = .60 to .80

Rolling terrain = .40 to .50

Flat terrain = .20 to .30

But in no case shall the pipe be less than twelve (12) inches. Drainage pipe shall be reinforced concrete or corrugated metal meeting Tennessee Department of Highway specifications. Cross drains shall be built on straight line and grade, and shall be laid on a firm base but not on rock. Pipes with spigots shall be laid with the ends fitted and matched to provide tight joints and a smooth, uniform invert. They shall be placed at a sufficient depth below the roadbed to avoid excessive pressure in impact, and in no case shall the top of the pipe be less than one foot below the roadbed. Installation of storm drainage structures shall be approved by the Planning Commission upon the recommendation of applicable inspection agencies.

In residential and commercial subdivisions, the subdivider may be required to provide curbs to insure surface drainage without erosion or damage to pavement edge. Such curbs shall be constructed in accordance with specifications found in Appendix IV (see also III B).

Where curbs are not provided, swale ditches with minimum longitudinal gradient of two (2) percent shall be required. They shall be constructed so that the valley line of the ditch shall be at least six (6) feet from the edge of the roadway surface (nine (9) feet for major access street). The slopes of ditches shall be no greater than 3:1 and shall be immediately seeded, fertilized and mulched upon grading and installation of utilities. The base of the ditch shall be sodded with approved vegetative cover in order to retard erosion. The top and bottom of banks and swales shall be rounded for convenience of maintenance (see also III B).

6. Sanitary Sewers

- a. All lots shall be served by approved sewage disposal facilities. Extensions to the municipal sewage system shall be designed, platted, and certified by an engineer licensed to practice in Tennessee. The final design shall be approved by the Norris Water Commission. and the State Department of Public Health.
- b. Connections to the existing municipal sanitary sewer system shall receive first consideration. Where this connection is not economically feasible the Planning Commission may require the installation of a community sewage system, such a package sewage plant, and associated piping system. Wherever required, such

installation shall meet the requirements of, and by approved by, the Norris Water Commission and the State Department of Public Health.

- c. Where more than one lot in a subdivision must be served by private sewage disposal systems (septic tank and drain field), satisfactory evidence must be supplied to the Planning Commission to indicate that soil and other conditions are such that septic tanks will operate satisfactorily and create no health hazards. In such cases the Planning Commission will require a report by a sanitarian or engineer licensed to practice in the State of Tennessee. The report shall show percolation test procedures and results, any adverse water-table conditions, location of sinkholes, rock outcrops, and other such fractures that are non-conducive to acceptable *septic operation. The report shall also give the estimated average drain field area required per residential bedroom and recommended minimum lot size.
 - d. This report shall not negate the need for approval of individual disposal plans by the County Sanitarian as required in the municipal building permit application.
 - e. The diameter of any sewer pipe intended for inclusion in the public system shall not be less than eight (8) inches except when approved by the Norris Water Commission. The minimum diameter permissible for any service lateral shall be four (4) inches.
 - f. Sanitary sewer manholes must be installed in all sewer mains at all changes of grade, alignment, and pipe size: in no case shall they be more than three hundred (300) feet apart.
 - g. A plugged "Y" or "T" shall be installed in sewer mains opposite each lot prior to back-filling for connection to the occupant lateral. Exact distance of "Y" from sewer man hole shall be noted on as-built plan.
 - h. Prior to connection with the community sewer system, all new sewer mains shall be inspected and approved by a representative of the Norris Water Commission.
 - i. All sewer mains shall be located within street right-of-way except where specifically approved by the Norris Water Commission.
 - j. Backfilling of sewer main ditches shall be in accordance with accepted engineering standards.
 - k. The sanitary sewer system shall meet the minimum requirements of the latest requirements of FHA publication No. 720, Minimum Design Standards for Community Sewerage Systems, except that the sewage collection system shall meet the requirements of Appendix E.
7. Water System. Water mains shall be constructed in such a manner as to serve adequately all lots shown on the subdivision plat for both domestic use and fire protection.

- a. Fire flow shall be as described in Appendix F. The appended specifications are based on the National Fire Protection Association Handbook of Fire Protection, Chapter 48, and on the International City Manager's Association Municipal Fire Administration, pages 162, 165, 169, 170, 177. These publications shall be used as a standard for any technical points not outlined here. Hydrants shall be located at least ten (10) feet from any obstruction such as walls and utility poles; they may not be located on fills unless specifically approved by the Fire Department. Location at road intersections is preferred. They shall be set plumb and have a barrel length such that the ground line cast on the barrel is within four (4) inches of the actual finished ground level. In any case, height of outlets shall be not less than fifteen (15) inches above finished grade nor more than twenty-five (25) inches.
 - b. Fire hydrants shall be as described in Appendix F.
 - c. The water supply system shall meet Norris Water Commission and State public Health Department standards and specifications. See Appendix F.
 - d. Prior to use, all extensions of the public water supply system shall be disinfected in a manner approved by the County Health Officer and the Norris Water Commission.
 - e. No water from extensions of the public water supply system shall be used for domestic purposes until tested and approved by the County Health Officer.
8. Site Improvements. Banks which infringe on sight lines at intersections shall be graded to correct the deficiency.

Wherever grading or filling occurs on lots within the subdivision, the subdivider shall first stockpile the topsoil from the affected areas. Immediately after grading and filling, topsoil shall be redistributed to disturbed areas of sufficient depth to support growth of lawn grass and other vegetation, and shall immediately seed, fertilize and mulch such areas with appropriate vegetative cover to prevent erosion.

Due regard shall be shown for such desirable trees as are already on the site, and grading and filling should be planned to preserve as many as possible; however, no retained planting shall infringe on sight lines at intersections. Trees planted adjacent to streets or sidewalks shall be located five (5) feet from the property lines where they are less subject to injury, and to decrease the chances of motor accidents and where they will enjoy more favorable conditions for growth. If trees are to be planted within a planting strip in the right-of-way, their proposed locations and species to be used must be submitted for Planning Commission approval since the public inherits the care and maintenance of such trees. The Tree Commission may assist the subdivider in location of trees and species to use under varying conditions.

Where land is platted or reserved for commercial or industrial use bordering and across minor streets from residential lots, a suitable buffer planting of trees and shrubs (not infringing on sight lines at intersections) approved by the Planning Commission shall be

required.

B. Inspection and Testing

All construction and installation shall be subject to full and complete inspection by representatives of the appropriate agencies of the City of Norris or designated engineer.

Before commencing construction or installation of any improvements required herein, the owner, his duly authorized agent, or contractor shall obtain such permits for same as may be required and shall fully acquaint himself with the schedule of inspections found in Table 2.

The developer shall contract the services of an engineering consulting firm, approved by the city for inspection of materials, equipment and construction in conformance with the testing/inspection schedule. Expenditures incurred during the inspection/testing process shall be the responsibility of the developer. The engineering firm performing the testing/inspection shall not be involved with any phase of construction or design of the project. The inspector shall have the right to reject faulty work, materials, and equipment and to order the work or installation halted until deficiencies have been corrected. He may also order changes to the drainage system, roads, grading, base or site improvements to correct construction deficiencies if the specifications in these regulations are not met.

C. Waivers

The Planning Commission may waive any requirements contained in Articles III and IV under the following conditions:

1. The subdivider makes a written request and shows to the satisfaction of the Planning Commission that topographical or other conditions peculiar to the site are such that strict adherence to the requirements would cause him unnecessary hardship and would not carry out the intent of these regulations.
2. The Planning Commission suggests and the subdivider agrees that an advantage in utilization of space or design or an economy of development would accrue both to the subdivider and to the community.

Any waiver thus authorized is to be stated in the minutes of the Planning Commission, along with the justification for the departure and the conditions under which it was granted.

D. Completion or Guarantee of Improvements

No final subdivision plat shall be approved by the Planning Commission or accepted for recording by the County Register of Deeds until one of the following conditions has been met.

1. All required improvements have been constructed in a satisfactory manner and approved by the Planning Commission, or

2. The Planning Commission has accepted a security guarantee in an amount equal to the estimated cost of installing the required improvements, whereby improvements may be made and utilities installed without cost to the public bodies in the event of default of the subdivider (see Appendix G for performance bond form). Should the subdivider elect to present a security bond for installation of all or part of the improvements or utilities, he shall present with the final plat a certified cost estimate of such installation made by a licensed contractor in the State of Tennessee giving a detailed analysis of proposed costs. Said estimate shall be subject to approval of the Planning Commission.

The following method of bonding will be acceptable:

- a. A surety bond or letter of credit from the subdivider to the Planning Commission for the city in the full amount of the estimated cost of installing improvements required under subdivision regulations.
- b. A performance bond from a corporate surety company on the contractor or subcontractor hired by the subdivider to make the improvements in his subdivision.
- c. A certified check in the full amount of the estimated cost of installing all required improvements. The Planning Commission shall authorize a reduction in the amount of said check in the full amount of the estimated cost of installing all required improvements. The Planning Commission shall authorize a reduction in the amount of said check on deposit as the required improvements are completed, however, the balance on deposit may never be less than the total estimated cost of installing the required improvements remaining to be installed or completed, subject to agreement between the designated agent of the Planning Commission and the developer on the amount and value of completed work.
- d. An escrow account in the full amount of the estimated cost of installing required improvements. The Planning Commission shall authorize a reduction in the amount of the escrow account as the required improvements are completed; however, the balance on deposit may never be less than the total estimated cost of installing the required improvements remaining to be installed or completed, subject to agreement between the designated agent of the Planning Commission and the developer on the amount and value of the completed work.

Table 2
Road Testing/Inspection Schedule

CONSTRUCTION PHASE	MATERIAL	TEST	FREQUENCY
After right-of-way boundaries have been staked & roadway cleaned of brush, stumps, top soil, etc.	Soil prior to any cut, fill or grading commencing	Collect soil sample and perform standard proctor test to determine "baseline" soil conditions	Once, after striping of topsoil
After the <u>placement of any fill</u> (embankment, if applicable)	Suitable fill material	Any test which is generally accepted by the testing industry and the civil engineering profession as yielding reliable results when testing for density moisture	One test per 1' of lift (fill) per 1,200 linear feet of roadway
After construction of <u>sub-grade</u>	Soil	Any test which is generally accepted by the testing industry and the civil engineering profession as yielding reliable results when testing for density/moisture	One sample every 200 linear feet of roadway collected in random pattern
After installation of <u>curbs</u>	At least machine formed concrete extruded	Visual inspection to determine that curb has been installed in accordance with specifications	Entire length of roadway
<u>Base</u>	Mineral Aggregate	Any test which is generally accepted by the testing industry and the civil engineering profession as yielding reliable results when testing to determine if materials meet specification and if depth, compaction, and density are as specified	One every 200 linear feet of roadway collected in a random pattern
<u>Pavement Surface</u>	Plant Mix Asphalt	Any test which is generally accepted by the testing industry and the civil engineering profession as yielding reliable results when testing to determine if materials meet specifications and if depth, compaction, and density are as specified	Representative of testing company to be present when mix arrives at site and during the installation of the riding surface; and shall conduct tests every 200 linear feet in a random fashion to assure the material is of the quality specified and is being applied to the depth and density specified
After <u>completion</u> of all construction		The testing company shall prepare a letter to the planning commission and county highway superintendent certifying that the road has been built to specifications	

ARTICLE V.

ENFORCEMENT AND PENALTIES FOR VIOLATIONS

The enforcement of these regulations and penalties for the unapproved recording or transfer of land is provided by state law in the authority granted by Title 13, of the Tennessee Code Annotated.

A. Enforcement

1. No plat or plan of a subdivision of land into two or more lots located within the jurisdiction of the Norris Planning Commission shall be admitted to the land records of the county or received or recorded by the County Register of Deeds until said plat or plan has received final approval in writing by the Planning Commission as provided in Section 13-4-302 of the Official Edition of The Tennessee Code Annotated.
2. Any public authority shall not accept, lay out, open, improve, grade, pave, or light any street or lay or authorize water mains or sewers or connection to be land in any street within the city unless such street shall have been accepted, opened, or otherwise received the legal status of a public street prior to the adoption of these regulations, or unless such street corresponds in its location and lines to a street shown on a subdivision plat which has been approved by the Planning Commission as provided in Section 13-4-307 of the Official.

B. Penalties

No County Register shall receive, file, or record a plat of a subdivision within the city without the approval of the Planning Commission as required in Section 12-4-302 of The Tennessee Code Annotated, and any County Register so doing shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by law.

1. Section 13-4-306 of The Tennessee Code Annotated, 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 b1r 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 by this chapter and before such plat be recorded in the office of the appropriate County Register, shall be deemed guilty of a misdemeanor punishable as other misdemeanors as provided by law; and the description of metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the transaction from such penalties. The municipality, through the city solicitor or other city official designated by the chief legislative body, may enjoin such transfer or sale or agreement by action for injunction.
2. Section 13-4-308 of The Tennessee Code Annotated, provides that from and after the time when the platting jurisdiction of any municipal planning commission shall have attached as provided in Section 13-4-302, no building permit shall be issued and no building shall be erected on any lot within the municipality unless the street giving access to the lot upon which said building is proposed to be placed shall have been

accepted or opened as or shall have otherwise received the legal status of a public street prior to that time or unless such street corresponds in its location and lines with a street shown on a subdivision plat approved by said planning commission or on a street plat made and adopted by said commission, or with a street located or accepted by the chief legislative body of the municipality after submission to said planning commission and, in case of said commission's disapproval, by the favorable vote required in Section 13-4-307.

3. Section 13-4-308 of The Tennessee Code Annotated, provides that any building erected or to be erected in violation of this section shall be deemed an unlawful structure and the building commissioner or solicitor of the municipality or other official designated by the chief legislative body may bring action to enjoin such erection or cause it to be vacated or removed.

ARTICLE VI.

ADOPTION AND EFFECTIVE DATE

Before adoption of these subdivision standards a public hearing as required by Section 13- 3-303, The Tennessee Code Annotated, was held. Notice of such hearing was announced in the Clinton Courier being of general circulation within the area of planning jurisdiction, on 8/25/88 said notice stating the time and place for the hearing.

These rules and regulations shall be in full force and effect from and after their adoption.

Chairman, Planning Commission

9/7/88
Adopted

Attest: Secretary

9/7/88
Public Hearing

APPENDIX A

FORMS FOR FINAL PLAT CERTIFICATION

1. CERTIFICATION OF UTILITY APPROVAL

I CERTIFY THAT THE WATER SUPPLY AND/OR SEWAGE DISPOSAL UTILITY SYSTEM OR SYSTEMS INSTALLED, OR PROPOSED FOR INSTALLATION, FULLY MEET THE REQUIREMENTS OF THE TENNESSEE HEALTH DEPARTMENT AND NORRIS SUBDIVISION REGULATIONS AND ARE APPROVED AS SHOWN.

DATE

COUNTY HEALTH OFFICER FOR SEPTIC
SYSTEM WATER/SEWER SUPERINTENDENT

2. CERTIFICATE OF APPROVAL FOR RECORDING

I CERTIFY THAT THIS SUBDIVISION PLAT COMPLIES WITH THE SUBDIVISION REGULATIONS OF THE CITY OF NORRIS, TENNESSEE, WITH THE EXCEPTION OF ANY VARIANCES RECORDED IN THE MINUTES OF THE PLANNING COMMISSION, AND IS APPROVED FOR RECORDING IN THE OFFICE OF THE ANDERSON COUNTY REGISTER.

DATE

SECRETARY, NORRIS MUNICIPAL
PLANNING COMMISSION

3. CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I (WE) ADOPT THIS PLAN OF SUBDIVISION WITH MY (OUR) FREE CONSENT AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

DATE

OWNER(S)

OWNER(S)

4. CERTIFICATE OF ACCURACY

I CERTIFY THAT THE PLAN SHOWN AND DESCRIBED IS A TRUE AND CORRECT SURVEY TO THE ACCURACY REQUIRED BY THE NORRIS MUNICIPAL PLANNING COMMISSION AND THAT THE MONUMENTS HAVE BEEN PLACED AS SHOWN TO THE SPECIFICATIONS OF THE NORRIS SUBDIVISION REGULATIONS.

DATE

REGISTERED ENGINEER OR SURVEYOR

5. CERTIFICATE FOR STREET APPROVAL

I CERTIFY THAT STREETS, SIDEWALKS AND/OR REQUIRED IMPROVEMENTS HAVE BEEN INSTALLED IN AN ACCEPTABLE MANNER AND ACCORDING TO CITY SPECIFICATIONS, OR THAT A SECURITY BOND IN THE AMOUNT OF \$ _____ HAS BEEN POSTED WITH THE PLANNING COMMISSION TO ASSURE COMPLETION OF ALL REQUIRED IMPROVEMENTS IN CASE OF DEFAULT.

DATE

CITY MANAGER

APPENDIX B

STABILIZED BASE

- A. Description. This item shall consist of a base course composed of aggregate and filler constructed on a prepared subgrade in accordance with specifications, to be placed in two (2) approximately equal layers, each thoroughly compacted to produce the required base course.
- B. Materials. All materials shall be secured from approved sources.
1. Crushed stone shall consist of hard durable particles or fragments of stone and a filler of sand or other finely divided mineral matter. The material shall be free from organic matter and lumps or balls of clay, and shall be graded as follows:

<u>Sieve Designation</u>	<u>Percent by weight Passing square mesh sieve</u>
1 inch	95 - 100
3/4 inch	80 - 100
3/8 inch	50 - 90
No. 4	35 - 65
No. 10	22 - 50
No. 40	15 - 30
No. 200	5 - 15

C. Construction Methods

1. Preparation of subgrade. All boulders, organic materials, soft clay spongy material and any other objectionable material shall be removed and replaced with approved materials. The subgrade shall be properly shaped, rolled, and uniformly compacted to conform with the accepted crosssection and grades.
2. Placing, mixing, and rolling base material. All base course material shall be deposited and spread by means of spreader boxes, or approved mechanical equipment, or from moving vehicles equipped to distribute the material in a uniform layer. Each layer shall be not more than three (3) inches in thickness after compaction and shall be constructed as follows:

After the base course material has been spread, it shall be thoroughly blade-mixed to the full depth of the layer by alternately blading the entire layer to the center and back to the edges of the road. The material shall be watered during the mixing when needed.

When uniform, the mixture shall again be spread smoothly. Immediately following final spreading and smoothing, all material placed shall be compacted to the full width by rolling with a smooth wheel power roller weighing eight (8) to ten (10) tons. Rolling shall progress gradually from the sides to the center, parallel with the center line of the road and lapping uniformly each preceding track by one-half the width of such track and shall continue until all the surface has been rolled and satisfactory compaction obtained.

Any irregularities or depressions that develop under such rolling shall be corrected by

loosening the materials at these places and adding or removing material until the surface is smooth and uniform.

Blading and rolling shall be performed alternately as required to maintain a uniform compacted base until a surface or treatment has been applied to the base.

Along curbs, headers, and walls and at all places not accessible to the roller, the base course material shall be tamped thoroughly with mechanical or hand tampers.

3. Seasonal limits. The base course material shall not be deposited or shaped on a frozen or thawing subgrade or during unfavorable weather conditions.

APPENDIX C

BINDER COURSE

Description. This course of hot plant mix asphaltic concrete material shall be placed on the prepared base in accordance with these specifications.

Materials. Materials and workmanship for binder course shall conform to requirements specified hereinafter for finish course, except that composition of the asphaltic concrete; mix shall conform to the following general composition limits by weight.

<u>Aggregate Size</u>	<u>Percent of Total Mix</u>
Passing 1-1/4" Sieve	- 100
Passing 3/4" Sieve	69 – 85
Passing No. 4 Sieve	43 – 55
Passing No. 20 Sieve	22 – 30
Passing No. 100 Sieve	2 – 9
Petroleum Asphalt	3.5-6.0

APPENDIX D

ONE COURSE ASPHALTIC CONCRETE WEARING SURFACE (PLANT MIXED)

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

Materials

1. Liquid asphalt for the tack coat shall be grade RC-2.
2. Asphalt cement to be used in the asphaltic concrete shall be uniform in character and free from water, shall not foam when heated to 350 degrees F., and shall meet the following requirements for penetration:

Penetration at 77 degrees F., 100 grams, 5 seconds, - 100 to 120. No mineral matter other than that naturally contained in the asphalt shall be present.

3. Aggregate shall consist of fine gravel and sand, disintegrated granite, or similar granular materials. The portion of the material retained on a No. 4 sieve shall be known as filler.

Sieve designation	Percent by weight Passing square mesh sieve
1 inch	100
3/4 inch	85 - 100
No. 4	60 - 100
No. 10	45 - 100
No. 200	5 - 15
Asphalt by weight	4 - 8

Construction Methods

1. Applying tack coat. Immediately before placing the bituminous mixture, the existing surface shall be cleaned of loose or deleterious materials by sweeping with a power broom or hand broom. The surface shall be thoroughly dry before applying the tack coat. When the existing surface has been put in proper condition, a tack coat shall be applied to the surface at the rate of 0.1 gallon per square yard by a power distributor of approved type, having a pressure of not less than forty (40) pounds per square inch. The bituminous mixture shall be spread and finished immediately after the tack coat has been applied.
2. Spreading and finishing. Where cement, concrete, or masonry edging is not specified on the accepted plan, suitable side forms of wood or steel shall be firmly fastened in place, and shall be true to line and grade as shown on the accepted plan. These forms shall remain in place until initial compaction has been obtained. The bituminous mixture shall be delivered on the job at a temperature of not less than 250 degrees F. Whenever practical, the mixture shall be spread by means of an approved, mechanical self-powered paver, capable of spreading the mixture true to the line and grade and crown as shown on the accepted plans and cross-sections.

When the mixture is to be spread by hand, it shall be deposited outside the area on which it is to be spread. Immediately thereafter it shall be distributed into place by means of hot shovels and spread with hot rakes in a loose layer of uniform density and correct depth. Loads shall not be dumped and distributed any faster than they can be properly handled by the shovelers and rakers. The raking shall be carefully and skillfully done in such a manner that after the first passage of the roller over the raked mixtures a minimum amount of back patching will be required.

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

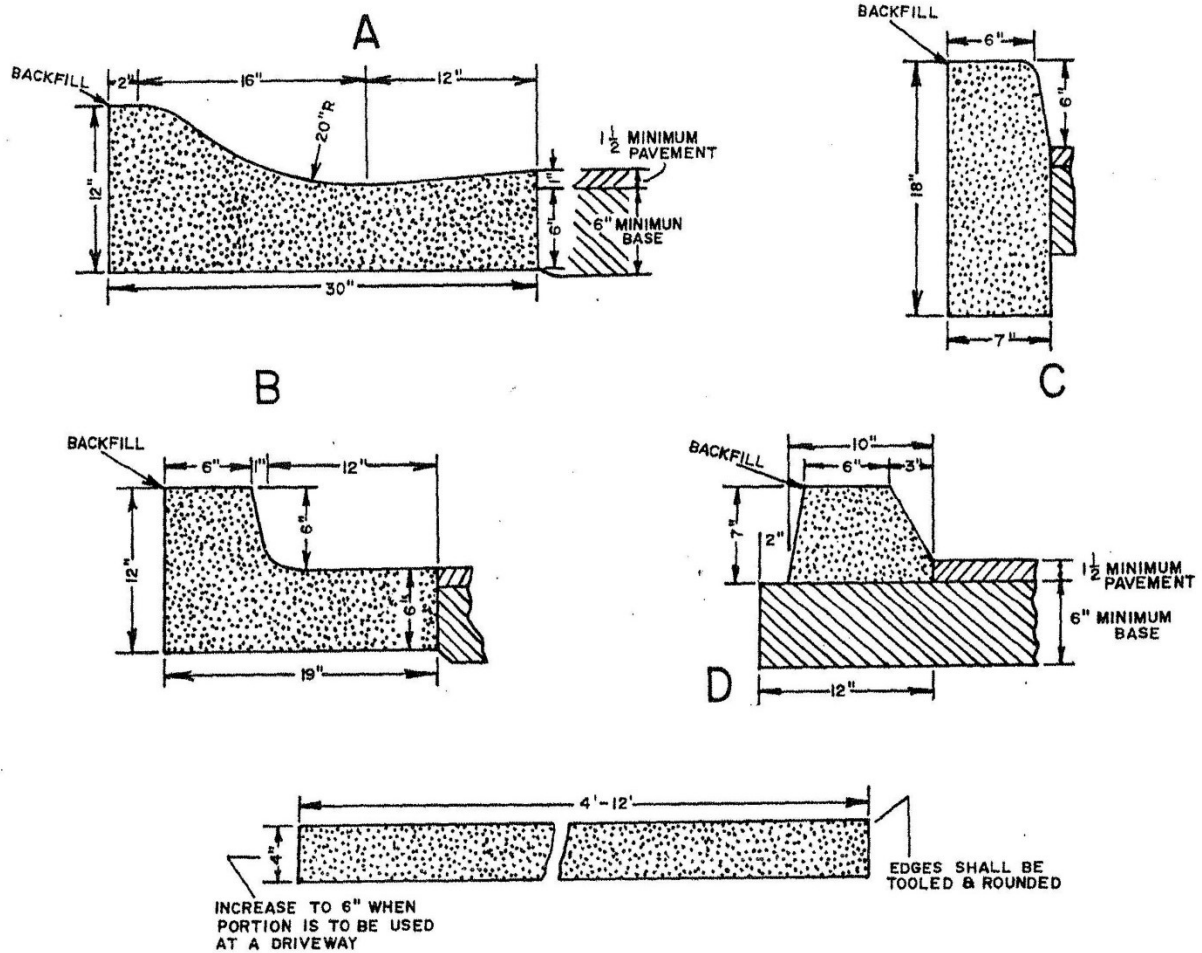
Longitudinal and transverse joints shall be well bonded and sealed. If necessary to obtain this result, the joints shall be cut back to the full depth of the previously laid course, painted with hot asphalt, and heated. Before placing the mixture against them, all contact surfaces of curbs, gutters, headers, manholes, etc., shall be painted with a thin uniform coating of hot asphalt cement or asphaltic cement dissolved in naphtha. After spreading, the mixture shall be thoroughly compacted to a thickness of not less than one and one-half (1-1/2) inches by a three-wheel power-driven roller, weighting not less than ten (10) tons, as soon after being spread as it will bear the roller without undue displacement. Rolling shall start longitudinally at the sides and proceed toward the center width of the rear wheel. The pavement shall then be rolled diagonally in two directions with a tandem roller, weighing not less than ten (10) tons; the second diagonal rolling shall cross the lines of the first. Along curbs, headers, manholes, and similar structures and at all places not accessible to the roller, thorough compaction must be secure by means of hot tampers and at all contacts of this character the joints between these structures and the surface mixture must be effectively sealed.

3. Seasonal limits. No asphalt material shall be laid when the temperature of the air is 50 degrees F. and falling or during unfavorable weather conditions.

APPENDIX E

CONCRETE CURBING AND SIDEWALKS

Description. This item shall consist of Portland cement concrete curbs and gutters, or sidewalks constructed on a prepared subgrade in accordance with these specifications and the cross-sections shown below:



Materials

1. Aggregates. Coarse aggregate shall consist of crushed stone or gravel. It shall be clean, hard tough, durable pieces free from injurious amounts of soft friable, thin, elongated, or laminated pieces, soluble salts, organic or other deleterious matter.

Fine aggregate shall consist of either a natural sand or a stone sand composed of sound particles of approved stone. All sand shall be free of clay or other adherent coatings and injurious amounts of deleterious material.

2. Cement. Standard Portland cement and high early strength Portland cement shall meet the requirements of current federal specifications SS-C-192 or equal.
3. Water. Water shall be free from oil, acids, alkali and vegetable matter and shall be clean.
4. Gradation. The aggregate when tested by means of laboratory sieves shall meet the following requirements.

<u>Sieve designation</u>	<u>Percent by weight passing square mesh sieve</u>	
	<u>Coarse aggregate</u>	<u>Fine aggregate</u>
1-1/2 inch	100	---
1 inch	95 – 100	---
1/2 inch	35 – 100	---
3/8 inch	---	100
No. 4	0 – 100	95 – 100
No. 16	---	45 – 80
No. 50	---	10 – 30
No. 100	---	2 – 10

5. Proportions. Concrete shall contain six (6) bags of cement per cubic yard and shall be proportioned in an approximate 1.2.4 mix as follows: Mix with each bag of cement 188 pounds of fine aggregate and 345 pounds of coarse aggregate, using six (6) gallons of water.

Weight of aggregates is based on a specific gravity of 2.65. Compressive strength shall be 3,000 pounds per square inch at 28 days.

Construction methods

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

3. Placing and finishing concrete. Just prior to placing the concrete the subgrade (or base) shall be moistened. The concrete mixed to the proper consistency shall be placed in the forms and thoroughly tamped in place so that all honeycombs will be eliminated and sufficient mortar will be brought to the surface. After this the surface shall be brought to the smooth, even finish by means of a wooden float. All faces adjacent to the forms shall be spaced so that after the forms are stripped the surface of the faces will be smooth, even, and free of honeycomb. All edges shall be tool-rounded. Slope sidewalks one quarter (1/4) inch per foot toward the pavement surface.
4. Expansion and contraction joints for concrete. Half-inch (1/2) expansion joints shall be placed at intervals not exceeding sixty, (60) feet. At intervals not greater than ten (10) feet not less than five (5) feet the concrete curb shall be scored for a depth equal to one-third (1/3) the total depth of the concrete. Sidewalks shall be scored to a depth of one (1) inch ever four (4) to six (6) feet and at all intersections with curbs or other structures.
5. Curing concrete. Exterior concrete surfaces shall be cured by coating with a non-coloring curing compound conforming with ASTM C-309, "liquid-membrane-forming compounds for curing concrete." Concrete shall also be satisfactorily protected from the elements.
6. Backfilling. Backfill shall be of suitable selected material and shall be placed and tamped in layers of not over six (6) inches in depth until firm and solid. Backfilling shall follow immediately after the concrete forms have been removed, and shall be higher than and sloped toward the top of the curb to insure surface drainage without erosion. Slope sidewalk planting strips one-quarter (1/4) inch per foot toward the pavement surface.
7. Extruded concrete curbs. Extruded concrete curbs will be allowed provided the profile and concrete proportions are approved by the Planning Commission prior to installation.

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

APPENDIX F

WATER AND SEWER SYSTEM SPECIFICATIONS

Specifications for design and installation of all water and sewer systems, including fire hydrants or other appurtenances, for the City of Norris, shall comply with specifications approved by the Norris Water Commission, dated October 1, 1985. The above subject specifications are on file with the Tennessee Department of Health and Environment, Division of Water Management. Copies of these standards are available at the Norris Community Building.

Deviations from these requirements shall be approved by the Norris Municipal Planning Commission and the Norris Water Commission. Specifications for water and sewer systems may be revised, amended, supplemented, or otherwise changed from time to time by the Norris Water Commission. Such changes, when effective, shall have the same force as the present specifications.

If any clause, sentence, paragraph, section or part of the above subject specifications shall be declared invalid or unconstitutional, it shall not effect the validity of the remaining parts of the requirements.

APPENDIX G
SUGGESTED FORM FOR A SECURITY BOND

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, _____, Principal herein is the owner and developer of the _____ Subdivision located in the City of Norris, Tennessee, and

WHEREAS, the plans and specifications of said subdivision showing the location, construction, and installation of streets, roads, sidewalks, curbs, utilities, and other improvements where required therein have been filed with the Norris Planning Commission for final approval, and which are hereby referred to and made a part of this instrument, as if fully copied and set forth herein, and

WHEREAS, the principal herein does hereby obligate himself and does agree to complete the construction and installation of all streets, road sidewalks, curbs, and utilities, and all other improvements when required in the said subdivision in accordance with the said plans and specifications now on file, pending final approval by the said Commission.

NOW, THEREFORE, THE _____ as principal and _____ a corporation organized and existing under the laws of the State of Tennessee and authorized to transact surety business in the State of Tennessee, as surety, and authorized to transact surety business in the State of Tennessee, as surety, do hereby firmly bind ourselves, our heirs, executors, administrators, and successors unto .the Norris Planning Commission .for and on behalf of Norris, Tennessee, in the sum of \$ _____ conditions upon the performance by the principal of his undertaking herein, and his completion of the said _____ Subdivision in the construction of all the streets, sidewalks, roads, curbs, and all other improvements therein called for by the plans thereof the same to be completed on or before the _____ day of _____, 19____, and upon the completion thereof this obligation to be null and void, otherwise to remain in full force and effect.

If the principal fails to complete the construction, and the improvements of said subdivision as shown and provided for by said plans and specifications herein referred to within the time herein specified, the Commission may in its discretion extend the time for the completion of said work by order duly made and entered by the said Commission for a period of from 30 days to 90 days.

Witness our hands this the _____ day of _____, 19_____.

WITNESS:

PRINCIPAL

SURETY

APPENDIX H

SUGGESTED FORM FOR A LETTER OF CREDIT

This Agreement entered into at Norris, Tennessee, on this the ____ day of _____, 19____, by and between _____, hereinafter referred to as Developer, _____, a Tennessee Banking Corporation, hereinafter referred to as Bank, and Norris Municipal Planning Commission. hereinafter referred to as Commission.

RECITALS

1. Whereas, Developer desires to construct a road and related improvements such as sidewalks, etc. within the jurisdiction of Commission:
2. Whereas, Bank desires to finance the development of said road, and to provide credit which shall secure the completion of improvements to said development required by Commission:
3. Whereas, Commission desires security for the completion of improvements to said development in accordance with specification and time schedule authorized by Commission.

WITNESSETH

1. Developer agrees that the itemized list of specifications for improvements to said development attached hereto and marked Exhibit "A" are those specified by the Commission and that the time table for completion thereof attached hereto and marked Exhibit "B" have been established by the Commission, and hereby reaffirms its agreement to complete said improvements in accordance with the specifications of the Commission and within the time schedule established by the Commission.
2. The parties hereto agree to the amount of _____ appropriate to establish as security for the completion of said improvements.
3. Bank hereby agrees that it has and is hereby affirming an irrevocable line of credit to Developer to secure the completion of the hereinabove described improvements in accordance with specifications and the time schedule established by the Commission, and does hereby agree to honor the assignment stated herein below from the Developer to the Commission of any and all funds necessary to complete said improvements in accordance with Commission specifications and time schedule, up to the amount of _____. Bank agrees and warrants to Commission that said line of credit will be sufficient to complete said improvements by Commission up to the maximum amount stated.
4. By affixing their authorized signatures to this agreement, Bank and Developer do hereby agree that the line of credit extended by Bank to Developer for the amount described hereinabove is irrevocable by either Bank or Developer until a written release is received by Bank and Developer.
5. Developer does hereby make to Commission an irrevocable assignment of the proceeds of a line of credit from Bank to Developer described hereinabove for the completion of said improvements to the extent necessary to complete said improvements in accordance with the specifications of the Commission and in accordance with the time schedule established by Commission.
6. Developer agrees that it shall make no attempt to revoke said assignment at any time prior to the receipt of a written release from Commission.

7. It is agreed between the parties that the hereinabove described assignment is made by Developer by affixing his signature hereto, but that said assignment shall be exercised by Commission only in the event the hereinabove described improvements are not completed .in accordance with Commission specifications and/or in compliance with the time schedule established by the Commission.

8. Bank here agrees that it will honor said assignment and provide to Commission any and all funds necessary to complete said improvements in accordance with Commission specification and time schedule up to the maximum amount of _____ upon written notification from Commission of the failure of Developer to comply with said specifications and/or said time schedule.

9. As between Bank and Commission, it is agreed that said notification is conclusive of non-compliance, and Bank shall take no action to delay or deny its agreement to honor said assignment from Developer to Commission.

10. Bank agrees that any and all funds paid to Commission in accordance with the assignment made between Developer and Commission herein shall be debited against the credit of Developer, and Bank will in no event attempt to hold the Norris Municipal Planning Commission liable under any legal or equitable principle for the repayment of said funds.

11. Commission agrees that it shall give Developer five (5) days written notice of its intent to exercise its assignment described hereinabove, and the specific reasons therefor. If Developer makes no written reply to Commission within said five (5) days, Developer hereby agrees it shall take no action, legal or otherwise, to interfere with said assignment, and by its failure to respond within said five (5) days, shall be deemed to acknowledged non-compliance with the specifications of Commission and/or the time schedule as specified in the notice received by Developer, and to the amount of the assignment.

12. This Agreement shall be binding upon and inure to the benefit of the parties hereto, their heirs, administrators, and assigns, and shall not be modified or terminated without the written agreement of all parties hereto.

BY: _____
DEVELOPER

BY: _____
LENDING INSTITUTION

BY: _____
NORRIS MUNICIPAL PLANNING COMMISSION

Exhibit A

Required Construction Improvements
as Specified by the
Norris Municipal Planning Commission

1. _____
2. _____
3. _____
4. _____

Exhibit B

Required Date of Completion of Improvements _____
Date

Developer

Norris Municipal Planning Commission