

SUBDIVISION

REGULATIONS

CITY OF DICKSON

TENNESSEE

**SUBDIVISION REGULATIONS
CITY OF DICKSON, TENNESSEE**

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LAST AMENDED: _____

**PREPARED FOR THE
DICKSON MUNICIPAL PLANNING COMMISSION**

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AMENDMENTS

DATE

RESOLUTION

AMENDMENT

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ARTICLE I

GENERAL PROVISIONS

1-101 Title

These regulations shall hereinafter be known and cited as the Subdivision Regulations, of Dickson, Tennessee.

1-102 Authority

These subdivision regulations are adopted by the Dickson Municipal Planning Commission (hereinafter referred to as "Planning Commission"), in pursuance of the authority and powers granted by Sections 13-4-301 through 13-3-309, Tennessee Code. Having adopted a major street or road plan for the jurisdictional area, and filed a certified copy of the plan with the County Register of Deeds (hereinafter referred to as "county register"), as required by Sections 13-4-302, Tennessee Code, and having held a public hearing as indicated in Section 7-101, of these regulations, and as required by Section 13-3-303, Tennessee Code, the Planning Commission has fulfilled the requirements set forth in state law as prerequisites to the adoption of these regulations.

1-103 Jurisdiction

These subdivision regulations shall apply to all subdivisions, as herein defined, located within the City of Dickson municipal limits. No land shall be subdivided within the planning region until the subdivider submits a plat as required by these regulations, obtains Planning Commission approval of the plat, and files the approved plat with the county register.

1-104 Policy and Purpose

It is hereby declared to be the policy of the Planning Commission to consider the subdivision of land and development of a subdivision plat as subject to the control of the adopted land use or community development plan (hereinafter referred to as "land development plan") of the jurisdictional area for orderly, planned, and efficient physical and economical development.

Land to be subdivided shall be of such character that it can be used for building purposes without danger of health, fire, flood, or other menace.

Land shall not be subdivided until proper provisions have been made for drainage, water, sewerage, other public utilities, and for other required public services. The existing and proposed public improvements shall generally conform to and be properly related to the proposals shown in the land development plan.

These regulations are adopted for the following purposes:

- A. To promote the public health, safety, and general welfare of the jurisdictional area.

- B. To guide the development of the jurisdictional area in accordance with the land development plan, considering the suitability of nonresidential and public areas and having regard for the most beneficial land use in such areas.
- C. To provide for adequate light, air, and privacy; to secure safety from fire, flood, and other dangers; and to prevent overcrowding of the land and undue congestion of population.
- D. To enhance the character and economic stability and encourage the orderly, beneficial development of the jurisdictional area.
- E. To conserve the value of land, buildings, and improvements throughout the jurisdictional area and to minimize detrimental conflicts among the uses of land and structures.
- F. To guide public and private policy and action providing for transportation, water, sewerage, schools, recreational areas, and other public requirements and facilities.
- G. To provide for the most beneficial relationship between the uses of land and buildings and the efficient traffic movement throughout the jurisdictional area.
- H. To establish reasonable standards of design and procedures for subdivisions and resubdivisions; to further the orderly layout and use of land; and to insure proper legal descriptions and proper monumenting of land.
- I. To insure that public facilities are available and will have a sufficient capacity to serve the proposed subdivision.
- J. To prevent the pollution of air, streams, and ponds; to assure the adequacy of drainage facilities; to safeguard the water table; and to preserve the integrity, stability, beauty, and value of the jurisdictional area.
- K. To preserve the natural beauty and topography of the jurisdictional area, and to insure appropriate development with regard to these natural features.
- L. To provide for open spaces through efficient design and layout of the land, including the use of average density in providing for minimum width and area of lots, while preserving the density of land as established in any zoning ordinance.
- M. To encourage subdivision design which would maximize the conservation of all forms of energy.

1-105 Interpretation, Conflict, and Severability

1-105.1 Interpretation

These regulations shall be held to be the minimum requirements for the promotion of health, safety, and general welfare.

1-105.2 Conflict with Public and Private Provisions

1-105.201 Public Provisions

These regulations are not intended to interfere with, abrogate, or annul any other ordinance, rule, or regulation, statute, or other provision of law. Where any provision of these regulations imposes restrictions different from those imposed by any other ordinance, rule, regulation, or other provision of law, whichever provisions are more restrictive or impose higher standards shall control.

1-105.202 Private Provisions

These regulations are not intended to abrogate any easement, covenant, or any other private agreement or restriction; provided, that where these regulations are more restrictive or impose higher standards than such easement, covenant, or other private agreement or restriction, the requirements of these regulations shall govern.

Where any private provision exceeds the standards set forth herein, such shall be considered a private contract between the parties of interest, and as such is beyond the jurisdiction of the Planning Commission.

1-105.3 Severability

If any part or provision of these regulations or application thereof to any person or circumstances is adjudged invalid by any court of competent jurisdiction, such judgment shall be confined in its operation to the part, provision, or application directly involved in the controversy in which such judgment shall have been rendered and shall not affect or impair the validity of the remainder of these regulations or the application thereof to other persons or circumstances. The Planning Commission hereby declares that it would have enacted the remainder of these regulations without any such part, provision, or application.

1-106 Saving Provision

These regulations shall not be construed as abating any action now pending under, or by virtue of prior subdivision regulations; or as discontinuing, abating, modifying, or altering any penalty accruing or about to accrue; or as affecting the liability of any person; or as waiving any right of the Planning Commission under any section or provision existing at the time of adoption of these regulations; or as vacating or annulling any rights obtained by any person by lawful action of the Planning Commission, except as expressly provided otherwise in these regulations.

1-106.1 Previously Approved Subdivisions

1-106.101 Unexpired Preliminary Approval

The approval granted on any plat prior to the effective date of these regulations shall remain in force and effect for the time period stipulated by the regulations under which the approval was first granted.

1-106.102 Expired Preliminary Approval

In any instance in which the period of preliminary approval shall have passed with some portion of the subdivision not having received final approval, and the applicant wishes an extension of the preliminary approval, the Planning Commission may:

- (1) permit the remaining portion of the subdivision to be constructed and to receive approval under provisions set forth in the regulations whereby preliminary approval was originally granted, or
- (2) stipulate that the plat is null and void and that a new plat be presented subject to the provisions of these regulations.

In making this determination, the Planning Commission shall consider all pertinent facts available to it. The current state and active pursuit of construction and development activities within the subdivision shall be given due consideration in the course of the Planning Commission's deliberation on this question.

1-107 Amendments

1-107.1 Enactment

For the purpose of providing for the public health, safety, and general welfare the Planning Commission may from time to time amend these regulations. Before the adoption of any amendment to these regulations, a public hearing thereon shall be held by the Planning Commission, as required by Chapter 3, Title 13, Tennessee Code, the time and place of which shall be given in a newspaper of general circulation.

1-107.2 Codification and Distribution

Subsequent to the adoption of any amendment to these regulations, such amendment shall be incorporated into the text of these regulations in the following manner.

1. Replacement pages shall be prepared incorporating the new or changed language. Each such new or replacement page shall have the amendment number and shall be dated so as to indicate the date of the last revision of the page.
2. In Article VII, of these regulations, each adopted amendment shall be numbered consecutively and printed on pages separate from any other amendment and in a manner which fully states any language deleted from these regulations and any language added and the place in the text of each such change.

1-108 Resubdivision of Land

1-108.1 Procedures for Resubdivision

If any change in an approved or recorded subdivision plat would affect the layout of any public street, alley, or road (hereinafter referred to as public way) shown on such plat, or area reserved thereon for public use, or any lot

line, or if it would affect any map, plan, or plat legally recorded before the adoption of any subdivision regulations, such amendment shall be approved by the Planning Commission by the same procedure, rules, and regulations as for a subdivision.

1-108.2 Procedures for Subdivision Where Future Resubdivision Is Foreseen

Whenever a parcel of land is subdivided and the subdivision plat shows one or more lots containing more than one acre of land or double the minimum required area for any zoning district in which the lot is located, and the Planning Commission has reason to believe that any such lot(s) will be resubdivided into smaller building sites, the Planning Commission may require that the subdivision and development of such parcel of land allow for the future opening of public ways and the ultimate extension of adjacent public ways. The Planning Commission may also require that dedications providing for the future opening and extension of such public ways be indicated on the plat.

1-109 Conditions

Regulation of the subdivision of land and the attachment of reasonable conditions to land subdivision are exercises of valid police power delegated by the state to the Planning Commission. The developer has the duty of compliance with reasonable conditions imposed by the Planning Commission for design, dedication, improvement, and restrictive use of the land so as to provide for the physical and economical development of the jurisdictional area and for the safety and general welfare of future plot owners in the subdivision and of the community at large.

1-110 Vacation of Plats

Any plat or any part of any plat may be vacated by the owner of the premises, at any time before the sale of any lot described therein, by a written instrument, to which a copy of such plat shall be attached, declaring the plat or part of the plat to be vacated. The Planning Commission shall follow the same procedure for approval of plats. The Planning Commission or City Council may reject any such instrument which abridges or destroys any public rights in any of its public uses, improvements, or public ways. Such an instrument shall be executed, acknowledged, or approved, and duly recorded or filed; the instrument shall operate to void the recorded plat and divest all public rights in the public ways and public grounds and all dedications laid out or described in such plat. When any lot or lots have been sold the plat may be vacated in the manner herein provided only if all of the owners of lots in such platted area join in the execution of such writing.

1-111 Variances

1-111.1 General

If the Planning Commission finds that extraordinary hardships or practical difficulties may result from strict compliance with these regulations, a variance from these regulations may be granted; provided, such variance shall not have the effect of nullifying the general intent and purpose of these regulations and provided, further, that the Planning Commission shall not

recommend variations unless it shall make findings based upon written evidence presented to it in each specific case that:

1. the granting of the variance will not be detrimental to the public safety, health, or welfare, or be injurious to other property or improvements in the neighborhood in which the property is located;
2. the conditions upon which the request for a variance is based are unique to the property for which the variance is sought and are not applicable generally to other property;
3. because of the particular physical surroundings, shape, or topographical condition of the specific property involved, a particular hardship (not self-imposed) to the owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulations were carried out; and
4. the variance will not in any manner alter the provisions of the land development plan, the major street or road plan, or any zoning ordinance.

Where the Planning Commission concludes that the purpose of these regulations may be specifically served to an equal or greater extent by an alternative proposal, condition, or circumstance, it may approve other variations to these regulations.

1-111.2 Procedures

Each and every variance or modification of these subdivision regulations sought by a subdivider shall be specifically applied for in the numerical order of the subdivision regulations, in writing by the subdivider in letter form. Any condition shown on the plat which would require a variance or modification shall constitute a grounds for disapproval of the plat unless such special application for modification variance is made. In approving any variation from these regulations the Planning Commission shall state fully in the minutes the grounds for the variation and all of the facts upon which the decision is made.

1-111.3 Conditions

In approving variations, the Planning Commission may impose such conditions as in its judgment will secure substantially the objectives, standards, and requirements of the regulations.

1-112 Enforcement, Violation, and Penalties

1-112.1 General

1-112.101 Authority

The enforcement of these regulations and the penalties for violations are provided pursuant to Title 13, Tennessee Code.

1-112.102 Enforcing Officer

It shall be the duty of the Building Official (hereinafter referred to as "the enforcing officer)" to enforce these regulations and to bring to the attention of legal council any violations or lack of compliance herewith.

1-112.103 Recording of Plats

Pursuant to Section 13-4-402, Tennessee Code, no plat of a subdivision of land within the jurisdictional area shall be received or recorded by the county register until the plat has received final approval of the Planning Commission in accordance with these regulations, and such approval has been endorsed in writing on the plat by the Planning Commission secretary in the manner prescribed by Section 2-105, of these regulations.

The description by metes and bounds in the instrument of transfer or other document used in the process of selling or transfer shall not exempt any owner or agent violating the provisions of the preceding paragraph from the penalties or remedies provided in Subsections 1-112.2 and 1-112.3, of these regulations.

1-112.104 Use of Unapproved Plats

Pursuant to Section 13-4-306, Tennessee Code, no owner or agent of the owner of any land shall convey such land contrary to the provisions stated herein.

The description by metes and bounds in the instrument of transfer or other document used in the process of selling or transfer shall not exempt any owner or agent violating the provisions of the preceding paragraph from the penalties or remedies provided in Subsections 1-112.2 and 1-112.3, of these regulations.

1-112.105 Metes and Bounds Subdivisions

The subdivision of any lot or parcel of land by use of metes or bounds description without complying with the plat provisions of these regulations shall not be permitted. All such described subdivisions shall be subject to all of the requirements of these regulations.

1-112.106 False Statements About Roads

Pursuant to Section 13-4-306 Tennessee Code, no owner or agent of the owner of any land shall falsely represent to a prospective purchaser of real estate that roads or streets will be built or constructed by any city, county, or any other political subdivision.

1-112.107 Public Ways and Utilities

Pursuant to Section 13-4-307, Tennessee Code, the Planning Commission shall not nor shall any public authority accept, lay out, open, improve, grade, pave, or light any public way, lay or authorize the laying of water mains or sewers, or construct or authorize the

construction of other facilities or utilities in any public way located within the jurisdictional area unless such way shall have been accepted, opened, or otherwise received the legal status of a public way prior to the attachment of the Planning Commission's jurisdiction, or unless such way corresponds in its location and lines to a way shown on a subdivision plat approved by the Planning Commission or on a public way plat made by the Planning Commission.

In case of any state highway constructed or to be constructed within the jurisdictional area with state funds as a part of the state highway system, the submission to the Planning Commission shall be by the Tennessee Commissioner of Transportation, who shall have the power to overrule the disapproval of the Planning Commission.

1-112.108 Building Permits

No building permit shall be issued for the construction of any building or structure located on a lot or plat subdivided or sold in violation of any provision of these regulations.

1-112.109 Access to Lots by Public Way or Private Easement

Pursuant to Section 13-4-308, Tennessee Code, no building permit shall be issued and no building or structure shall be erected on any lot within the jurisdictional area, unless the public way giving access to the lot upon which the building or structure is proposed to be placed shall have been accepted or opened or shall have otherwise received the legal status of a public way as provided by law, or unless such lot fronts upon a permanent easement which conforms to the provisions set forth in these regulations.

Provided, further, that when a permanent easement to a public way is used as access to a lot or tract of land having been or being separated by deed or plat from other property, said easement shall meet the following minimum requirements and any special conditions attached by the Planning Commission:

- a. A permanent easement used for access to a lot or tract of land shall be at least fifty (50) feet in width, for the entire distance, from the public way to the lot or tract being served. The Planning Commission may require greater widths if necessary to meet special conditions present on a plat;
- b. A permanent easement providing legal access to more than one lot shall be improved to meet the road construction standards established in the general requirements and minimum standards and development prerequisites to final approval sections of these regulations. This requirement does not apply when a permanent easement is providing access to one or more tracts of land that contain twenty-five (25) acres or more per tract, for the purpose of agriculture use. Any owner/developer subdividing a tract or tracts of land into parcels smaller than twenty-five (25) acres each that are located on a

permanent easement shall improve that easement to meet the road construction standards of these regulations;

- c. Permanent easement improvements shall be maintained by the developer/owner by a legally established home owners association or other similar group approved by the Planning Commission. The legal documents establishing the easement and ensuring maintenance of the easement shall be submitted with the final plat for review and approval and shall be recorded with the final plat;
- d. If, at any future date, a permanent easement is submitted for acceptance as a public street or road, it shall be submitted to the Planning Commission for approval. In considering the easement for approval as a public street or road, the Planning Commission shall require the improvements to the easement to meet the minimum street construction standards in effect at the time the request for public acceptance is made.

The above section shall not be construed to prohibit the development of buildings on lots or tracts with permanent access provided by private ways when such development is in the form of condominium ownership of such private improvements which have been approved by the Planning Commission and will be in private ownership and control in perpetuity.

1-112.2 Penalties for Violations

1-112.201 Recording of Unapproved Plats

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 Section 13-4-302, Tennessee Code, and any county register so doing shall be deemed guilty of a misdemeanor, punishable as other misdemeanors as provided by law. Any county register, receiving, filing or recording a plat of a subdivision in violation of Subsection 1-112.103, of these regulations, shall be deemed guilty of a violation of the above cited provision of the Tennessee Code.

1-112.202 Use of Unapproved Plats

Section 13-4-306, Tennessee Code, provides that whoever being the owner or agent of the owner of any land transfers, or sells or agrees to sell or negotiates to sell such land by reference to or exhibition of or by other use of a plat of subdivision of such land without having submitted a plat of such subdivision to the Planning Commission and obtained its approval as required before such plat be recorded in the office of the appropriate county register, shall be deemed guilty of a misdemeanor punishable as other misdemeanors as provided by law; and the description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the transaction from such penalties. The city through its city

attorney may enjoin such transfer or sale or agreement by action of injunction.

1-112.203 Illegal Buildings

Any building or structure erected or to be erected in violation of the subdivision regulations shall be deemed an unlawful building or structure; and the building official or other official designated by the chief legislative body may bring action or enjoin such erection or cause it to be vacated or removed as provided in Section 13-4-308, Tennessee Code.

1-112.3 Civil Enforcement

1-112.301 General

Appropriate actions and proceedings may be taken in equity to prevent any violation of these regulations, to prevent unlawful construction, to recover damages; to restrain, correct, or abate a violation, or to prevent illegal occupancy of a building, structure, or premise; these remedies shall be in addition to the penalties described in Subsection 1-112.2, of these regulations.

1-112.302 Specific Statutory Remedies

- a. Use of Unapproved Plats -- The Planning Commission, through its attorney or other official designated by the Planning Commission, the City Council through its attorney or other official designated by the City Council, may enjoin by action for injunction any transfer of, sale of, or agreement to sell any land in violation of Subsection 1-112.104, of these regulations.
- b. Erection of Unlawful Buildings - Where any building or structure is erected or being erected on any lot in violation of the road or easement frontage requirements of Subsection 1-112.109, of these regulations, the city building official or the city attorney or other official designated by the City Council may bring action to enjoin such erection or cause the building or structure to be vacated or removed.
- c. Enforcement of Bonds -- Where a bond is accepted in lieu of completion of subdivision improvements and utilities as provided in Article III, of these regulations, the city shall enforce such instrument in the manner prescribed by ARTICLE III, of these regulations.

1-113 Repeal of Previous Regulations

Upon the adoption and effective date of these regulations, the Subdivision Regulations of Dickson, Tennessee, adopted January, 1990, as amended, are hereby repealed.

ARTICLE II
PROCEDURES FOR PLAT APPROVAL

2-101 General Procedure

2-101.1 Plat Approval Requirements

Before any contract is executed for the sale of any parcel of land which is proposed to be subdivided and before any permit for the erection of any structure in a proposed subdivision shall be granted, the subdividing owner or his authorized agent shall apply for and secure the Planning Commission's approval of the proposed subdivision in accordance with the procedures of this article.

2-101.2 Classification of Subdivisions

The Planning Commission shall classify each subdivision proposal as either major or minor as defined herein.

2-101.201 Review Procedure

The subdivider shall follow the procedure described below in order to secure plat approval.

a. **Minor Subdivision**

- (i) Preapplication conference with the enforcing officer including submittal of a scale drawing or survey of the proposed subdivision for preliminary discussion and review.
- (ii) Securing of approvals from other public agencies and any affected utility districts or companies.
- (iii) Submittal of a final plat, prepared, in accordance with the specifications in Section 5-104, herein, for approval by the Planning Commission.
- (iv) When a subdivision divides a tract into no more than two lots and does not involve any street, permanent easement or public utility construction to serve such lot(s), the approval may be endorsed in writing on the plat by the secretary of the Planning Commission upon certification by the enforcing officer that the subdivision complies in all respects with these regulations and all other adopted ordinances and policies of the governing body; provided, further, that no request for a variance from these regulations or of any other adopted

ordinances or policies has been requested or will be required as a result of said approval.

- (v) Any person authorized to endorse approval in writing on the final plat, as provided in Subsection 2-101.201, (a), (iv), herein may refuse to endorse approval of the plat and request consideration of the plat by the Planning Commission at the next regularly scheduled meeting of the body.

b. **Major Subdivision**

- (i) Preapplication conference on the subdivision with the relevant city staff that make recommendations to the Planning Commission.
- (ii) Submittal of a sketch plat, prepared in accordance with Section 5-101, herein, for Office of Planning and Zoning approval.
- (iii) Submittal of a preliminary plat, prepared in accordance with Section 5-102, herein, for Planning Commission approval.
- (iv) Securing of approval from other public agencies.
- (v) Submittal of the final subdivision plat, prepared in accordance with Section 5-104, herein, for Planning Commission approval.

2-101.3 Official Submission Date

For the purpose of these regulations the date of the regularly scheduled meeting of the Planning Commission at which the final subdivision plat is first reviewed by the Planning Commission shall be the official submittal date of the plat at which the statutory period required in Section 13-4-304, Tennessee Code, shall begin for formal approval or disapproval.

2-101.4 Policy on Flood Prone Areas

In determining the appropriateness of land subdivision at any site containing a flood prone area, the Planning Commission, in reviewing any plat, shall consider the policy and purpose set forth in Section 1-104, of these regulations and, additionally:

1. the danger to life and property due to the increased flood heights or velocities, either potential or actual, caused by subdivision fill, roads, and intended uses;
2. the danger that intended uses or improvements may be swept onto other lands or downstream to the injury of others;

3. the adequacy of proposed water supply, sanitation, and drainage systems, and the ability of these systems to function under flood conditions;
4. the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage upon the individual owner;
5. the importance of the services provided by the proposed facility to the community at large;
6. the requirements of the subdivision for a waterfront location;
7. the availability of alternative locations not subject to flooding for the proposed subdivision and land uses;
8. the compatibility of the proposed uses with existing development or development anticipated in the foreseeable future;
9. the relationship of the proposed subdivision to the land development plan and the floodplain management program for the area;
10. the safety of access to the property for emergency vehicles in times of flood;
11. the expected heights, duration, velocity, rate of rise, and sediment transport of the floodwaters expected at the site;
12. the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, public ways, and bridges;
13. the effect of the proposed subdivision upon the Planning Commission's participation in the National Flood Insurance Program, if such Planning Commission is, or elects to be, in the program;
14. the compliance of the proposed subdivision with minimum requirements of the National Flood Insurance Program (NFIP) as regulated by the Federal Emergency Management Agency (FEMA) in order to maintain the City's status within the program.

In cases where a base flood elevation with a delineated floodway is not shown the subdivider shall prepare a report, with the assistance of a licensed engineer as necessary, on any proposed subdivision containing or abutting a floodprone area. Such report shall estimate the discharge of the regulatory flood; calculate the expected water surface elevations resulting from the regulatory flood discharge; determine the specific flooding threat at the site of the proposed subdivision; and indicate whether the subdivision is located in a floodway or floodway fringe area by:

1. calculation of water surface elevations and regulatory flood protections based upon a hydraulic analysis of the capacity of the stream channel and overbank areas to convey the regulatory flood;

2. computation of the floodway required to convey the regulatory flood without increasing natural flood heights of the regulatory flood more than one (1) foot at any point; and
3. unless otherwise established, computation of increase in flood heights caused by any encroachment based upon the reasonable assumption that there will be an equal degree of encroachment on both sides of the stream within that reach. No increase in flood elevation attributable to encroachments on the floodplain of any river or stream shall be permitted in any one reach or for the cumulative effect of several reaches.

In cases in which a blueline stream crosses a roadway or any portion of a lot located within the subdivision and such stream has a drainage area of 40 acres or more a flood study as outlined above shall be conducted and submitted to the Planning Commission for review.

No subdivision or part thereof shall be approved by the Planning Commission if proposed levees, fills, structures, or other features within the subdivision will individually or collectively, increase flood flows, heights, duration, or damages. The regulatory limits (the one hundred-year flood level) shall be determined from the latest approved flood study for the jurisdictional area, and any subsequent revisions thereto. Specific engineering studies are to be formulated by the developer in those areas in which flood data are not currently available. Additional studies may be required by the Planning Commission.

In any instance in which the Planning Commission determines that a proposed subdivision may affect the flood height, velocity, or duration in any flood prone area outside its jurisdiction, the commission shall take all actions necessary and proper to ensure the coordinated review of the development with the appropriate governmental agencies of the affected area.

In approving plans for subdivision of land containing flood prone areas, the Planning Commission shall ensure that development will proceed in such a way that property lying within any floodway, as defined by these regulations, will be maintained in a manner as prescribed by any zoning ordinance. The Planning Commission shall also ensure that development within any floodway fringe area (within the one hundred-year floodplain) will be protected adequately against potential flood hazards by the methods prescribed in Article IV, of these regulations. Encroachments in the regulatory floodway caused by roadway embankments or fills shall be supported by engineering analyses proving that the proposed work does not cause any increase in the base flood elevation (100-year flood elevation) or the floodway surcharge. Such analyses shall be prepared by an engineer licensed in the State of Tennessee and experienced in this work. Encroachments in the regulatory floodway that are not supported by appropriate analyses shall not be permitted either directly or by variance.

Where protection against flood damage is necessary, in the opinion of the Planning Commission, flood-damage protection techniques may include, as deemed appropriate by the Planning Commission:

1. the imposition of any surety and deed restrictions enforceable by the Planning Commission to regulate the future type and design of uses within the flood prone areas; and
2. flood protection measures designed so as not to increase, either individually or collectively, flood flows, height, duration, or damages, and so as not to infringe or encroach upon the regulatory floodway;
3. installation of flood warning systems;
4. the use of fill, dikes, levees, and other protective measures;
5. the use of floodproofing measures, which may include:
 - (a) anchorage to resist flotation and lateral movement;
 - (b) installation of watertight doors, bulkheads, shutters, or other similar methods of closure;
 - (c) reinforcement of walls to resist water pressures;
 - (d) use of paints, membranes, or mortars to reduce seepage through walls;
 - (e) addition of mass or weight to structures to resist flotation;
 - (f) installation of pumps to lower water levels in structures;
 - (g) construction of water supply and waste treatment systems so as to prevent the entrance of or contamination of flood waters;
 - (h) installation of pumps or comparable facilities for subsurface drainage systems to relieve external foundation wall and basement flood pressures;
 - (i) building design and construction to resist rupture or collapse caused by water pressure of floating debris;
 - (j) installation of valves or controls on sanitary and storm drains which permit the drains to be closed to prevent backup of sewage and storm water into buildings or structures;
 - (k) location and installation of all electrical equipment, circuits, and appliances so that they are protected from inundation by the regulatory flood;
 - (l) location of storage facilities for chemicals, explosives, buoyant material, flammable liquids, or other toxic materials which would be hazardous to the public health, safety, and welfare at or above the regulatory flood protection elevation, or design of such facilities to prevent flotation of storage containers or damage to storage containers which could result in the escape of toxic materials.

All such flood protection measures shall be designed so as not to increase, either individually or collectively, flood flows, heights, duration, or damages so as not to encroach upon the regulatory floodway.

All such flood protection measures shall be designed by a licensed professional and shall be submitted with sealed plans and calculations prepared by that professional.

The Planning Commission may when it deems necessary for the health, safety, or welfare of the present and future population of the area or necessary to the conservation of water, drainage, and sanitary facilities, prohibit the subdivision of any portion of the property which lies within the floodplain of any stream or drainage course. The regulatory floodway shall be preserved from any and all destruction or damage resulting from clearing, grading, or dumping of earth, waste material, or stumps. Minor excavation may be permitted within the regulatory floodway upon submittal and approval of a grading plan. Placement of fill or structures in the regulatory floodway shall not be permitted except as indicated in previous paragraphs.

The Planning Commission shall disapprove the subdivision of any land containing a flood prone area when the commission determines that subdivision plans are not consistent with the policy stated in this section.

2-101.5 Special Provisions Governing Unit Ownership (Condominium) Subdivisions

2-101.501 General Provisions

- a. Intent -- This section is intended to augment the general legislation of Sections 66-27-101 through 66-27-123, Tennessee Code, entitled "Horizontal Property Act," by providing supplemental rules and regulations for the implementation of the act, as specifically authorized in Section 66-27-121, Tennessee Code.
- b. Applicability -- Whenever a developer, the sole owner, or the co-owners of a building or buildings expressly declare through the submission of a master deed, lease, or plat their desire to submit their property to a regime, as established and provided by Sections 66-27-101 through 66-27-123, Tennessee Code, wherein there is established a horizontal property regime, each such condominium or horizontal property regime created under the authority of these provisions for the purpose of sale or transfer of real property is subject to the provisions of these regulations.

2-101.502 Submission of Plat Required

Prior to the sale or transfer of any property incorporated in the property regime, the developer, sole owner, or co-owners of such property shall submit to the Planning Commission a subdivision plat of such property in the manner prescribed by this article; such plat, if approved, shall be filed with the county register in the manner prescribed by this article.

2-101.503 Determination of Subdivision Type

Condominium subdivisions shall be classified by the Planning Commission during the plat review process as either horizontal condominiums or vertical condominiums as defined in Article VI, of these regulations.

2-101.504 Procedure

An applicant seeking approval of a condominium subdivision shall proceed through the normal procedure for subdivision approval, as set forth in this article.

2-101.505 Contents of Plans and Documents

The plats, plans, and documents submitted by an applicant seeking approval of condominium subdivision shall conform with the specifications set forth in Article V, of these regulations.

2-102 Sketch Plat (Major Subdivisions Only)

2-102.1 Purpose of Sketch Plat

The applicant shall submit a sketch plat to the Office of Planning and Zoning for review. The sketch plat is to be a concept plan for design purposes and should be used to discover all factors which may have an impact on the proposed development and to advise the subdivider of various possibilities before substantial amounts of time and money have been invested in a very detailed proposal which may contain elements contrary to these regulations.

2-102.2 Sketch Plat Requirements

The sketch plat shall include the information set forth in Section 5-101.

2-102.3 Approval of Sketch Plat

Copies of the sketch plat shall be submitted to the Office of Planning and Zoning for review and approval. The number of copies shall be determined by the enforcing officer. Approval of the plat shall constitute authorization to prepare detailed plans and specifications.

2-103 Preliminary Plat (Major Subdivisions Only)

2-103.1 Application Procedure and Requirements

The applicant shall file with the Planning Commission a preliminary plat. The failure of the applicant to satisfy the requirements of this section with full and

correct information shall be cause for disapproval of a preliminary plat. The preliminary plat shall be prepared in accordance with Section 5-102, and:

1. be presented at the office of the enforcing officer prior to the cutoff deadline for a regular (officially opened) meeting of the Planning Commission;
2. include all land which the applicant proposes to subdivide and all land immediately adjacent, extending two hundred (200) feet therefrom, or of that directly opposite thereto, extending two hundred (200) feet from the public way frontage of such opposite land. The lot pattern of surrounding development shall be shown within that area located within two hundred (200) feet of the proposed development;
3. be accompanied by the number of copies of the preliminary plat as described herein as determined by the enforcement officer; and
4. be accompanied by the number of copies of construction plans as described in Section 5-103 as determined by the enforcement officer, of these regulations.

2-103.2 Administrative Review

An administrative review meeting shall be conducted on the preliminary plat, construction plans, and any exhibits submitted in conformance with these regulations. This review shall include the staff that make recommendations to the Planning Commission and any other appropriate governmental representative. The review shall be held prior to the regularly scheduled Planning Commission meeting at which the plat is to be reviewed. The findings of the review committee shall be presented to the Planning Commission.

2-103.3 Notice of Hearing

A Planning Commission shall hold a hearing as required by Chapter 3, of Title 13, Tennessee Code, on each plat brought before it.

2-103.4 Preliminary Approval

After the Planning Commission has reviewed the preliminary plat, construction plans, exhibits, and the results of administrative review, the applicant shall be advised of any required changes. The Planning Commission shall approve, conditionally approve, or disapprove the preliminary plat within thirty-five (35) days after date of the regular meeting of the Planning Commission at which the hearing on preliminary approval, including adjourned date thereof, is closed.

A certificate of preliminary approval shall be issued by the secretary of the Planning Commission, upon demand, and the applicant may proceed to apply for final subdivision plat approval in the manner prescribed by Section 2-104, of these regulations.

After the Planning Commission approves, conditionally approves, or disapproves the preliminary plat, one copy of the proposed preliminary plat shall be returned to the applicant with the date of approval, conditional approval, or disapproval thereon. If a preliminary plat is disapproved the Planning Commission shall state specific reasons for disapproval which shall be entered into the minutes of the meeting.

Before the Planning Commission approves a preliminary plat showing land for any public use, the Planning Commission shall obtain approval for the land reservation from the City Council or appropriate governmental agency.

2-103.5 Public Improvements

The Planning Commission may require that all public improvements be installed and dedicated prior to the signing of the final subdivision plat by the secretary of the Planning Commission. If the Planning Commission does not require that all public improvements be installed and dedicated prior to signing of the final subdivision plat, an adequate performance bond shall be approved. The amount of such bond shall be established by the appropriate city department based upon the cost estimates of such department with the help of other departments or experts that may be available or of the appropriate governmental representative (Such as the Water Authority of Dickson County) or by receipt of cost bids from two (2) or more independent contracting firms equal to the cost of all necessary improvements plus an additional twenty (20) percent to cover inflation.

Such bond shall be submitted by the applicant at the time of application for final subdivision plat approval. The Planning Commission shall require the applicant to indicate on the plat all public ways and improvements to be dedicated; all districts for water, fire, and utility improvements which shall be required to be established or extended; and any other special requirements deemed necessary by the Planning Commission in order for the subdivision plat to conform to the major street or road plan and the land development plan for the jurisdictional area.

2-103.6 Effective Period of Preliminary Approval

The approval of a preliminary plat shall be effective for a period of twelve (12) months, at the end of which time final approval of the subdivision plat must have been obtained from the Planning Commission, although the plat need not have been signed and filed with the county register. Any plat not receiving final approval within the period of time set forth herein shall be null and void, and the developer shall be required to submit a new plat for approval subject to any zoning provisions and the subdivision regulations currently in effect. Prior to the expiration of the preliminary approval and upon proper request by the applicant, the approval may be extended for one (1) additional year if the commission deems such to be advisable based upon progress made in developing the subdivision.

2-103.7 Zoning Regulations

Every plat shall conform to any existing zoning regulations and subdivision regulations applicable at the time of proposed final approval, except that any plat which has received preliminary approval shall be exempt from any

subsequent amendments to such zoning ordinance or these regulations rendering the plat nonconforming as to bulk, use, or development standards, provided, that final approval is obtained within the effective period of preliminary approval set forth in Subsection 2-103.6, herein.

2-104 Final Subdivision Plat (Minor and Major Subdivision)

2-104.1 Application Procedure and Requirements

A subdivider shall file with the Planning Commission a final plat. The plat shall be prepared in accordance with Section 5-104, and:

1. include the entire subdivision, or section thereof, for which final approval is sought;
2. be accompanied by the number of copies of the final subdivision plat as described herein as determined by the enforcing officer.
3. comply substantially with the preliminary plat, where such plat is required;
4. be presented at the office of the enforcing officer on the Planning Commission's standard Mylar form prior to the cutoff deadline of the regular meeting of the commission at which it is to be considered;
5. be accompanied by formal irrevocable offers of dedication to the public of all public ways and uses, utilities, parks, and easements, in a form approved by legal counsel, as applicable. (The subdivision plat shall be marked with a notation indicating the formal offers of dedication as shown in Article V, of these regulations.);
6. be accompanied by a performance bond, if required, in a form satisfactory to legal counsel and in an amount adequate to complete the required improvements. It shall include provisions that the principal of the bond shall comply with all the terms of the resolution of final subdivision plat approval, as determined by the Planning Commission, including, but without limitations, the performance of all required subdivision and offsite improvements, and that all improvements and land included in the irrevocable offers of dedication shall be dedicated to the Planning Commission free and clear of all liens and encumbrances on the premise(s);
7. be accompanied by written assurance from any public utility companies serving the area of the subdivision that necessary utilities will be installed and by proof that the applicant has submitted petitions in writing for the creation or extension of any utility districts as required by the Planning Commission upon preliminary plat approval; and
8. be accompanied, if the final plat contains open space, or recreational facilities, or if any portion of the site is in common ownership, by the following documentation for approval by the Planning Commission:
 - (a) plans for improvement and maintenance of the open space or facilities located thereon;

- (b) articles of incorporation and bylaws of the co-owners association or other legal entity (where open space or facilities are to be deeded to a co-owners association or similar organization acting on behalf of the joint owners of said property) charged with improving or maintaining the open space or facilities, and declaration of covenants and restrictions pertaining to each and every property within the subdivision;
 - (c) declaration of covenants and restrictions pertaining to open space and facilities which assure the continued use of said facilities for the purpose intended, where open space or facilities are to be retained by the developer.
9. be accompanied by construction plans and specifications for all public improvements such as roadways, underground utilities, drainage improvements, bridges, sidewalks, etc.

2-104.2 Endorsement of Notations

The notations and certifications required by Subsection 5-104.3, of these regulations, to appear upon the final plat shall be endorsed by appropriate officials and other persons prior to application for final subdivision plat approval, except that the certificate of Planning Commission approval shall be signed at the time specified in Section 2-105, of these regulations.

2-104.3 Hearing and Decision on Final Plat

The Planning Commission shall hold a hearing as required by Section 13-3-404, Tennessee Code, on each final plat brought before it. The Planning Commission shall, within thirty-five (35) days after submission of the plat, approve, modify, or disapprove the final subdivision plat by resolution, which shall set forth in detail any conditions to which the approval is subject, or reasons for disapproval. In no event shall the period of time stipulated by the Planning Commission for completion of required improvements exceed one (1) year from the date of final resolution.

Failure of the Planning Commission to act upon a plat within the prescribed time shall be deemed approval of the plat, and in such event, a certificate of approval, entitling the subdivider to proceed as specified in Subsection 2-104.4 and Section 2-105, of these regulations, shall be issued, upon demand, by the secretary of the Planning Commission. The applicant, however, may agree to an extension of the time for Planning Commission review.

One (1) copy of the final subdivision plat shall be returned to the subdivider with the date of approval, conditional approval, or disapproval noted thereon.

2-104.4 Vested Rights

No vested rights shall accrue to any plat be reason of preliminary or final approval until the actual signing of the plat by the secretary of the Planning Commission and recording in the office of the county register. All requirements, conditions, or regulations adopted by the Planning

Commission, applicable to the particular subdivision or to all subdivision generally, shall be deemed a condition of approval for any subdivision prior to the time of the signing of the final plat by the secretary of the Planning Commission. Where the Planning Commission has required the installation of improvements prior to the signing of the final plat, the Planning Commission shall not modify unreasonably the conditions set forth in the resolution of final approval.

2-105 Signing and Recording of Subdivision Plat

2-105.1 Signing of Plat

1. When a bond is required, the secretary of the Planning Commission shall endorse approval on the plat after the bond has been approved by the Planning Commission and after all the conditions of the resolution pertaining to the plat have been satisfied.
2. When installation of improvements is required, the secretary of the Planning Commission shall endorse approval on the plat after all conditions of the resolution have been satisfied and all improvements satisfactorily completed. There shall be written evidence that the required public facilities have been installed in a manner satisfactory to the Planning Commission as shown on certifications by the appropriate governmental representative(s) that necessary land dedications and improvements have been accomplished.
3. When the conditions of this section are satisfied, the secretary shall sign the permanent reproducible original of the subdivision plat.
4. In no event shall any action by the Planning Commission approving a subdivision plat become final until the plat is signed by the secretary of the Planning Commission.

2-105.2 Recording of Plat

1. All plats receiving final approval of the Planning Commission shall within ninety (90) days following the date of the meeting at which such approval is granted be presented to the enforcing officer for purposes of obtaining the signature of the secretary of the Planning Commission and filing with the county register.
2. Any plat not presented for signing and filing within the ninety (90) day period specified above shall be null and void and shall require a new hearing and decision on final approval as set forth in Subsection 2-104.3. In no event shall the secretary sign nor shall the enforcing officer attempt to file any plat not presented for signing and filing within the ninety (90) day period specified herein.
3. It shall be the responsibility of the enforcing officer to file the plat with the county register's office within ten (10) days of the date of signature. Simultaneously, with the filing of the plat, the enforcing officer shall record the agreement of dedication together with such legal documents as shall be required to be recorded by legal counsel.

2-105.3 Sectionalizing Major Subdivision Plats

Prior to granting final approval of a major subdivision plat, the Planning Commission may permit the plat to be divided into two (2) or more sections and may impose such conditions upon the filing of each section as it may deem necessary to assure the orderly development of the subdivision.

The Planning Commission may require that a performance bond be in such amount as is commensurate with the section or sections of the plat to be filed and may defer the remaining required performance bond principal amount until the remaining sections of the plat are offered for filing. The developer also may file irrevocable offers to dedicate public ways and improvements in the section offered to be filed and defer filing offers of dedication for the remaining sections until such sections, subject to any conditions imposed by the Planning Commission, shall be granted concurrently with final approval of the plat. Such authorized sections must contain at least ten (10) percent of the total number of lots contained in the proposed plat unless a specific waiver of this requirements is granted by the Planning Commission.

2.105.4 As Built Drawings

The developer shall submit to the city as built drawings. The as-built drawings shall be prepared by a licensed engineer or land surveyor and shall indicate the extent of constructed features, elevations and other necessary information as required by the Codes Official, Public Works Director or other official. No permits for construction of individual homes in residential subdivisions shall be issued prior to receipt of approved as-built drawings. No Certificate of Occupancy shall be issued for commercial/industrial buildings prior to receipt of approved as-built drawings.

ARTICLE III

ASSURANCE FOR COMPLETION AND MAINTENANCE OF IMPROVEMENTS

3-101 Improvements and Performance Bond

3-101.1 Subdivision Development Agreement

Prior to commencement of construction or site grading all developers shall have entered into the currently adopted Subdivision Development Agreement as approved by the Dickson City Council.

3-101.2 Completion of Improvements

Before the final subdivision plat is signed by the Planning Commission officer specified in Subsection 2-105.1, of these regulations, all applicants shall complete, in accordance with the Planning Commission's decision and to the satisfaction of the appropriate governmental representative, all public way, sanitary, and other improvements, including lot improvements on the individual lots of the subdivision, as required in these regulations and approved by the Planning Commission, and shall dedicate such improvements to the governing body free and clear of all liens and encumbrances on the property and public improvements thus dedicated.

3-101.3 Surety Instrument

The Planning Commission at its discretion may waive the requirement that the applicant complete and dedicate all public improvements prior to the signing of the final subdivision plat by providing that, as an alternative, the applicant post a bond at the time of submission for final subdivision approval in an amount estimated by the appropriate city department or other governmental agency (Such as the Water Authority of Dickson County) as sufficient to guarantee to the governing body the satisfactory construction, installation, and dedication of the incomplete portion of required improvements. (See Subsection 2-103.5).

Such performance bond shall comply with all statutory requirements and shall be satisfactory to legal counsel as to form, sufficiency, and manner of execution, as set forth in these regulations. The period within which required improvements must be completed shall be specified in the bond and shall not exceed two (2) years from date of final approval.

Such bond shall be approved by the city department or other governmental agency (Such as the Water Authority of Dickson County) as to amount and conditions. The City, if approved by the Planning Commission may, upon proof of difficulty, extend the completion date set forth in such bond for a maximum period of one (1) additional year. The city may accept at any time during the period of such bond a substitution of principal.

3-101.4 Temporary Improvements

The applicant shall build and pay for all costs of temporary improvements required by the Planning Commission, and shall maintain them to a reasonable satisfaction for the period specified by the Planning Commission. Prior to construction of any temporary facility or improvement, the applicant shall file with the Planning Commission a separate suitable bond for temporary facilities, which shall ensure that the temporary facilities will be properly constructed, maintained, and removed.

3-101.5 Costs of Improvements

All required improvements shall be made by the applicant at his expense. Any provisions for reimbursement by the governing body or any utility agency shall be stipulated clearly in the provisions of any bonds.

3-101.6 Governmental Units

Governmental units to which these bonds and contract provisions apply may file, in lieu of said contract or bond, a certified resolution or ordinance from officers or agencies authorized to act in their behalf agreeing to comply with the provisions of this article.

3-101.7 Failure to Complete Improvements

In subdivisions for which no performance bond has been posted, if the improvements are not completed within the period specified by the Planning Commission in the resolution approving the plat, the approval shall be deemed to have expired. In those cases in which a performance bond has been posted and required improvements have not been installed within the terms of such performance bond, the Planning Commission thereupon may declare the bond to be in default and require that all the improvements be installed regardless of the extent of the building development at the time the bond is declared to be in default.

3-101.8 Acceptance of Dedication Offers

Acceptance of formal offers of dedication of public ways, easements, and parks shall be by formal action of the City Council. The appropriate city department shall recommend acceptance by the City Council of improvements when such department has verified completion of such improvements. The approval by the Planning Commission of a subdivision plat shall not be deemed to constitute or imply an acceptance by the local government of any public way, easement, or other ground shown on the plat. The Planning Commission may require the plat to be endorsed with appropriate notes to this effect. However, approval by the Planning Commission of a final plat shall be considered a recommendation that such easements, public ways, or other infrastructure be accepted by the City Council upon their completion.

3-102 Inspection of Improvements

3-102.1 General Procedure

The city may provide for inspection of required improvements during construction and ensure their satisfactory completion. If the appropriate governmental representative finds upon inspection that any of the required improvements has not been constructed in accordance with the governing body's construction standards and specifications, the applicant shall be responsible for completing the improvements to the required standards. Whenever the cost of improvements is covered by a performance bond, the applicant and the bonding company shall be liable severally and jointly for completing said improvements according to specifications.

3-102.2 Release or Reduction of Performance Bond

3-102.201 Certificate of Satisfactory Completion

The city shall not recommend dedication of required public improvements nor shall the city release nor reduce a performance bond until the appropriate governmental representative submits a certificate stating that all required improvements have been satisfactorily completed, and until the applicant's engineer or surveyor has certified to the Planning Commission and/or the appropriate governmental representative (through submission of a detailed "as built" survey of the subdivision indicating location, dimensions, construction materials, and any other information required by the city) that the layout and the line and grade of all public improvements are in accordance with the approved construction plans for the subdivision. Upon such approval and recommendation, the governing body, thereafter, may accept the dedicated improvements in accordance with the procedures set forth in these regulations.

3-102.202 Reduction of Performance Bond

A performance bond may be reduced upon actual dedication and acceptance of public improvements and then only to the ratio that the public improvement dedicated bears to the total public improvements for the plat. In no event shall a performance bond be reduced below twenty-five (25) percent of the principal amount prior to final acceptance of all items covered under the bond.

3-103 Maintenance of Improvements

The applicant shall be required to maintain all improvements including all lot improvements, until acceptance of the public improvements by the governmental body.

The applicant may be required to file a maintenance bond with the city prior to dedication, in an amount considered adequate by the appropriate governmental representative and in a form satisfactory to legal counsel in order to assure the satisfactory condition of the required improvements, including all lot improvements, for a period of one year after the date of acceptance of the public improvements by the city.

3-104 Deferral or Waiver of Required Improvements

The Planning Commission may defer or waive at the time of final approval, subject to appropriate conditions, the provision of any or all such improvements as, in its judgment, are not requisite in the interest of the public health, safety, and general welfare, or which are inappropriate because of inadequacy or lack of connecting facilities.

Whenever it is deemed necessary by the Planning Commission to defer the construction of any improvement required herein because of incompatible grades, future planning, inadequate or lack of connecting facilities, or other reasons, the developer shall either pay his share of the costs of the future improvements to the Planning Commission prior to signing of the final subdivision plat by the appropriate governmental representative(s) or post a bond or other surety instrument ensuring completion of said improvements upon demand of the Planning Commission.

3-105 Escrow Deposits for Lot Improvements

3-105.1 Acceptance of Escrow Funds

Whenever, by reason of the season of the year, any lot improvements required by these regulations cannot be performed, the enforcing officer nevertheless may issue a certificate of occupancy upon accepting a cash escrow deposit in an amount to be determined by the appropriate governmental representative for the cost of such improvements; provided, there otherwise is no danger to the health, safety, or general welfare. The performance bond covering such lot improvements shall remain in full force and effect.

3-105.2 Procedures on Escrow Fund

All required improvements for which escrow moneys have been accepted by the enforcing officer at the time of issuance of a certificate of occupancy shall be installed by the developer within a period of nine (9) months from the date of deposit and issuance of the certificate of occupancy. In the event that the improvements have not been installed properly at the end of the time period, the enforcing officer shall provide written notice of two (2) weeks to the developer requiring him to install the improvements, and in the event they are not installed properly, in the judgment of the enforcing officer, he may request the Planning Commission to proceed to install or to contract for the installation of the necessary improvements in a sum not to exceed the amount of the escrow deposit.

At the time of the issuance of the certificate of occupancy for which escrow moneys are being deposited, the applicant shall obtain and file with the enforcing officer, prior to obtaining the certificate of occupancy, a notarized statement from the purchaser(s) of the premise authorizing the enforcing officer to install the improvements at the end of the nine (9) month period in the event the improvements have not been installed properly by the developer.

3-106 Issuance of Building Permits and Certificates of Occupancy

- A. Where a performance bond has been required for a subdivision, or any section of a subdivision, no certificate of occupancy for any building in the subdivision or section thereof shall be issued prior to the completion and

- dedication of the improvements to the appropriate governmental unit, as required in the Planning Commission's resolution of final approval of the subdivision plat.
- B. The extent of public way improvements shall be adequate for vehicular access by the prospective occupant and by police and fire equipment prior to the issuance of an occupancy certificate. The developer shall at the time of the dedication submit monies in escrow to the Planning Commission in a sum to be determined by the appropriate governmental representative for the necessary final improvement of the street.
 - C. No building permit shall be issued for the final ten (10) percent of lots in a subdivision, or if ten (10) percent be less than two (2) lots, for the final two (2) lots of a subdivision, until all public improvements required by the Planning Commission's resolution of final plat approval have been fully completed, dedicated, and accepted by the governmental body.

ARTICLE IV

REQUIREMENTS FOR IMPROVEMENTS, RESERVATIONS, AND DESIGN

4-101 General Requirements

4-101.1 Conformance to Applicable Rules and Regulations

In addition to the requirements established herein, all subdivision plats shall comply with all applicable laws, ordinances, resolutions, rules, or regulations, including, but not limited to:

1. all applicable provisions of Tennessee Law, regulations, or policy;
2. any zoning ordinance, any building and housing codes, and all other applicable laws or policies of the Planning Commission;
3. the adopted general plan and major road or streets (public way) plan;
4. the rules of the county health department and the Tennessee Department of Environment and Conservation;
5. the rules, as applicable, of the Federal Highway Administration or Tennessee Department of Transportation, if the subdivision or any lot contained therein abuts a non-local highway; and
6. the standards and regulations adopted by all other boards, commissions, and agencies of the Planning Commission, where applicable.

Plat approval may be withheld if a subdivision is not in conformity with the above rules or with the provisions set forth in Section 1-104, of these regulations.

4-101.2 Self-Imposed Restrictions

If the owner places restrictions on any of the land contained in the subdivision greater than those required by any zoning ordinance or these regulations, such restrictions or reference thereto shall be recorded with the county register on a separate form, along with the final subdivision plat in the office of the county register.

4-101.3 Monuments

The subdivider shall place permanent reference monuments on the subdivision as required herein and as approved by a licensed surveyor. Monuments shall be located and set as follows.

1. Monuments shall be located on public way right-of-way lines, at public way intersections, and at the beginning and ending point of curves.

2. The external boundaries of a subdivision shall be monumented in the field by monuments of stone or concrete not less than two and one-half (2 1/2) feet in length; not less than four (4) inches square or four (4) inches in diameter; and marked on top with a cross, brass plug, iron rod, or other durable material securely embedded, except where permanent markers are in existence. These monuments shall be placed not more than fourteen hundred (1,400) feet apart in any straight line and at all corners or breaks at each end of all curves, at the point where a curve changes its radius, at all angle points in any line, and at all angle points along a meander line, said points to be not less than twenty (20) feet back from the bank of any river or stream, except that when such corners or points fall within a public way or proposed future public way, the monuments shall be placed on the side line of the public way.
3. All internal boundaries and those corners and points not referred to in the preceding paragraph shall be monumented in the field by like monuments as described above. Such monuments shall be placed at each end of all curves, at a point where a river changed its radius, and at all angle points in any line. All lot corners not falling on any of the above described points shall be marked by iron rods, pipe, or pins at least eighteen (18) inches long and five-eighths (5/8) inch in diameter.
4. The lines of lots that extend to rivers or stream shall be monumented in the field by iron pins at least eighteen (18) inches long and five-eighths (5/8) inch in diameter or by round or square iron bars at least eighteen (18) inches long. Such pins shall be placed at the point of intersection of the river or stream and lot line, with a meander line established not less than twenty (20) feet back from the bank of the river or stream.
5. All monuments and pins shall be properly set in the ground and approved by a surveyor engaged in the practice of land surveying prior to the time the Planning Commission recommends approval of the final plat or release of the bond where bond is made in lieu of improvements.

4-101.4 Character of the Land

Land which the Planning Commission finds to be unsuitable for subdivision or development due to flooding, improper drainage, steep slopes, rock formations, adverse earth formations or topography, utility easements, or other features which would be harmful to the safety, health, and general welfare of inhabitants of the land and surrounding areas shall not be subdivided or developed unless adequate methods are formulated by the developer and approved by the Planning Commission, upon recommendation of any staff assistant serving the Planning Commission and/or other governmental representative, if any, to solve the problems created by the unsuitable land conditions. Such land shall be set aside for such uses as will not involve such a danger.

4-101.5 Subdivision Name

The proposed name of the subdivision shall not duplicate or too closely approximate phonetically the name of any other subdivision located within the City of Dickson or its approved urban growth boundary. The Planning Commission shall have authority to designate the name of the subdivision which shall be determined at sketch or preliminary plat approval.

4-102 Lot Requirements

4-102.1 Lot Arrangement

4-102.101 General

The lot arrangement shall be such that there will be no foreseeable difficulties, for reasons of topography, flood hazards, or other conditions in securing building permits to build on all lots in compliance with any zoning ordinance, the Tennessee Department of Environment and Conservation and county public health department regulations and in providing driveway access to buildings on such lots from an approved public way.

4-102.102 Solar Access

Where a reasonably feasible lot arrangement shall be such that building sites will afford maximum utilization of energy conservation measures, such as providing for solar access purposes.

4-102.103 Lots Subject to Flood

Where a lot in any flood prone area must be improved to provide a building site free from flooding, such improvements shall be made outside the floodway by elevation or fill to at least one foot above the regulatory flood protection elevation (one hundred-year flood) for a distance extending at least twenty-five (25) feet beyond the limits of intended structures and, additionally, extending a sufficient distance to include areas for subsurface sewage disposal if the lot is not to be connected to a public sanitary sewer system. Any fill shall be protected against erosion by rip-rap, vegetative cover, or other methods deemed acceptable by the Planning Commission. Additionally, such fill shall be protected against slope failure through appropriate means.

In nonresidential building sites outside a floodway but subject to flooding, the use of structural floodproofing methods specified in Subsection 4-101.4, of these regulations, as an alternative to landfill, may be approved by the Planning Commission, as provided in Subsection 2-101.4, of these regulations provided such measures comply with requirements for such floodproofing as adopted in the Dickson Zoning Ordinance.

4-102.104 Lots Located on Steep Slopes

Due to the potential threat to health and safety posed by development located on lands with slopes in excess of twenty (20) percent, the following regulations shall apply.

- a. Site Development Plan Required -- No building permit shall be issued for a building or any lot with slopes twenty (20) percent or over until a site plan meeting the following requirements has been approved by the Planning Commission. Said site plan shall show:
 - (i) The exact size, shape, and location of the lot,
 - (ii) The proposed location of all buildings, driveways, drainageways and utilities,
 - (iii) Proposed contours at vertical intervals of no more than ten (10) feet,
 - (iv) The extent of natural tree cover and vegetation,
 - (v) The location of any onsite soil absorption sewage disposal systems,
 - (vi) The type and location of erosion control methodology.
 - (vii) The surveyor's or engineer's stamp that prepared the plan,
 - (viii) Proper design of site for areas with steep slopes and land slide problems by a Registered Engineer.
- b. Site Development Standards -- The following standards shall be used as a guide in determining the suitability of the construction proposed for the particular site in question. The engineer's design required in Subsection 4-102.104, a, (viii), above, shall address these standards.
 - (i) Natural vegetation shall be preserved to the maximum extent possible,
 - (ii) Natural drainageways and systems shall be maintained, except that surface water may be diverted around a house or slope area to a natural drain using acceptable construction techniques,
 - (iii) Operations that increase loads, reduce slope support, and cause instability of the slope shall be prohibited to the maximum extent possible which will permit reasonable development of the site. These include filling, irrigation systems, accessory buildings, and onsite soil absorption sewage disposal systems,
 - (iv) Where sanitary sewers are not available any onsite sewage disposal system shall be shown on the site plan

and located to avoid slide-prone areas. Said system shall be approved by the county health department prior to the Planning Commission's review taking into account these requirements,

- (v) Erosion control measures shall be employed to prevent all soil material from leaving the site. Additionally, soil from excavation on the site shall not be disposed as fill on a potential slide area,
 - (vi) No construction which would cut the toe of the slope shall be permitted. This shall apply as well to subdivision roads constructed in compliance with these regulations.
- c. All lots subject to these provisions shall be so designated on the final plat

4-102.2 Lot Dimensions

Lot dimensions shall comply with the minimum standards of any zoning ordinance, where applicable. Where lots are more than double the minimum area required by any zoning ordinance, the Planning Commission may require that such lots be arranged so as to allow further subdivision and the opening of future public ways where they would be necessary to serve such potential lots, all in compliance with any zoning ordinance and these regulations. Generally side lot lines shall be at right angles to street lines or radial to curving street lines.

The minimum lot frontage on a public way or private easement shall be fifty (50) feet except, lots fronting on the radius of a cul-de-sac shall have a minimum frontage of thirty (30) feet. Any lot having direct ingress/ egress to an existing City roadway shall be located so as to have the minimum sight distance as shown on Table 1.

Dimensions of the corner lots shall be large enough to allow for erection of buildings, observing the minimum front yard setback requirements from both public way rights-of-way.

Depth and width of properties reserved or laid out for business, commercial, or industrial purposes shall be adequate to provide for the off-street parking and loading facilities required for the type of use and development contemplated, and as established in any zoning ordinance.

4-102.3 Width to Depth Ratio

No lot when subdivided shall have a greater width to depth than one to four (1:4); therefor, when any lot is subdivided from an existing lot or tract, no side lot line shall be greater than four (4) times the length of the front lot line. Lots that front along the radius of a cul-de-sac are exempt from this requirement.

4-102.4 Building Setback Lines

In the case of electric transmission lines where easement widths are not definitely established, a minimum building setback line from the center of the transmission line shall be established as follows:

<u>Voltage of Line Setback</u>	<u>Building</u>
7.2 KV	15 feet
13 KV	25 feet
46 KV	37 1/2 feet
69 KV	50 feet
161 KV	75 feet

4-102.5 Restrictions for Lots with Access to Two or More Streets.

Driveway access points may be restricted by the Planning Commission as follows:

- A. to the roadway with the lesser thoroughfare classification as shown on the Dickson Major Thoroughfare Plan.
- B. to the roadway with the least average daily traffic when both streets share the same thoroughfare classifications.
- C. to the roadway with the best sight distance, the least slope, etc. provided that there are significant topographical or other physical conditions (including flood prone areas) on the property that would, in the opinion of the Planning Commission, prevent the application of these restrictions from protecting public safety.

4-102.502 Access from Arterial or Collector Public Ways

The Planning Commission may require that lots shall not derive access exclusively from arterial or collector public ways. Where driveway access from such public ways may be necessary for several adjoining lots, the Planning Commission may require that the lots be served by a combined access drive in order to limit possible traffic hazards. Driveways shall be designed and arranged so as to avoid requiring vehicles to back onto arterial or collector public ways.

4-102.6 Soil Preservation, Grading, Erosion Control, and Seeding

4-102.601 Soil Preservation and Final Grading

Except as required for the building site, top soil shall not be removed from residential lots or used as spoil, but shall be redistributed so as to provide cover on the lots. Upon lots served by individual sewage disposal systems, grading shall be performed in strict accordance with

requirements of the local office of the State Department of Environment and Conservation.

4-102.602 Lot Drainage

Lots shall be laid out so as to provide positive drainage away from all buildings, and individual lot drainage shall be coordinated with the general storm drainage pattern for the area which includes subsurface drainage. Drainage shall be so designed so as to avoid concentration of storm drainage water from each lot to adjacent lots. No subdivision shall be allowed to increase the instance of flooding upon an adjoining property.

The Planning Commission reserves the right to require the developer's engineer to set minimum elevations on all floors, patios, and building equipment. This prerogative to establish elevation exists in addition to any ordinances that refer to floodplain elevation requirements. The content of the preceding paragraph is to give the Planning Commission summary review powers over any calculated or historical evidence of storm water presence in overland or channel conditions.

The subdivision developer will ensure that all artesian ground waters of a permanent or temporary nature encountered within the right-of-way will be intercepted and carried away to primary drainage conduits along swaled ditches or in underground pipes on property line easements. Regardless of the location of property lines, intercept will be allowed at the point of artesian surfacing. The intent of this paragraph is to perform this work upon evidence of artesian water for a period of one (1) year following acceptance of all roads and utilities.

Any sinkhole or natural channel which serves or has served as a means of moving or storing ground water shall be protected as may be required by the city engineer. Additionally, the developer shall apply for, and obtain, any state permits required for work around a sinkhole prior to making application to the City.

4-102.603 Erosion and Sediment Control

There shall be a minimization of changes in the rate of natural erosion and sedimentation which result from the development process. An erosion and sediment control plan shall be presented with the construction plans submitted in conformance with Section 5-103, of these regulations. Such plans shall incorporate the following principals:

- a. clearing and grading shall be integrated with layout design;
- b. clearing shall be minimized and existing vegetation shall be preserved to the maximum feasible degree;
- c. grading shall be strictly limited to those areas involved in current construction activities;

- d. disturbed areas shall be protected and stabilized as soon as possible;
- e. structural and vegetative measures to control the velocity and volume of runoff shall be required;
- f. sediment basins and traps shall be required as necessary;
- g. adequate maintenance of all planting and structures measures shall be assured.
- h. the developer shall comply with stipulations of the State of Tennessee General Permit for Discharge of Construction Storm Water and other applicable provisions of the Clean Water Act.

4-102.7 Debris and Waste

No cut trees, timber, debris, junk, rubbish, or other waste materials of any kind shall be buried in any land or left or deposited on any lot or public way at the time of the issuance of a certificate of occupancy for the lot, and removal of such waste shall be required prior to issuance of any certificate of occupancy. Neither shall any such waste be left nor deposited in any area of the subdivision at the time of expiration of the performance bond or dedication of public improvements, whichever is sooner. The developer shall provide waste receptacles within the project to collect construction waste and debris. Additionally, temporary sanitary facilities shall be provided at the site.

4-102.8 Fencing

Each subdivider or developer shall be required to furnish and install all fences wherever the Planning Commission determines that a hazardous condition exists. Such fences shall be constructed according to standards established by the Planning Commission, as appropriate, and shall be noted on the final plat as to height and required materials. No certificate of occupancy shall be issued for any affected lot until such fence improvements have been installed.

4-102.9 Water Bodies and Watercourses

If a tract being subdivided contains a water body, or portion thereof, lot lines shall be so drawn as to distribute the entire ownership of the water body among the fees of adjacent lots. The Planning Commission may approve an alternative plan whereby the ownership of and responsibility for safe maintenance of the water body is so placed that it will not become a governmental responsibility.

No more than ten (10) percent of the minimum area of a lot required under any zoning ordinance may be satisfied by land which is permanently under water. Where a watercourse separates a buildable area of a lot from the public way by which it has access, provisions shall be made for installation of culvert or other structure approved by the Planning Commission and no certificate of occupancy shall be issued for a structure on such a lot until the

installation is completed and approved by the Planning Commission and/or the appropriate governmental representative.

Water bodies and watercourses (ponds, lakes and streams) shall be protected by a 25-foot buffer zone that shall not be disturbed by clearing, grading or other construction without approval by the Planning Commission. The intent of this measure is to protect water quality by providing vegetative filter strips, shading of streams, and reduce the risk of erosion immediately adjacent to the stream bank.

4-103 Streets

All Public and Private Streets shall be designed according the specifications of Appendix B.

4-103.1 Location and Arrangement of Driveways.

In order to insure the safety of the public and to allow for efficient flow of traffic on existing and proposed streets, the following standards for the location and arrangement of private driveways shall be applied to any new lot created after July 1, 2008.

- A. All driveways shall meet the minimum sight distance requirements shown on Table 1 when they are placed on existing roadways.

Driveways in non-residential subdivisions shall be aligned so as to be directly across from existing roadways or driveways OR be restricted to a minimum safe distance between roads and driveways as shown on Table 2. The minimum distances between driveways on the same side and the opposite side as shown on Table 3 shall be measured from centerline to centerline of the driveways. A driveway shall be considered to be directly aligned to the driveway (or roadway) on the opposite side of the street if their centerlines are within 5' of each other.

- B. All driveways shall be located at the distances from roadway intersections as shown on Table 3.

When determining the distance of a road or driveway to an intersection such measurement shall be from the nearest tangent of each road or driveway as measured at the pavement.

- C. Any conditions or restrictions concerning the location of driveways required or approved by the Planning Commission shall be so noted on the subdivision plat. Such notes shall be considered a condition of approval and shall be enforced by the Building Commissioner in the issuance of building permits and certificates of occupancy. Any such note required by the Planning Commission should not be construed as being a private restriction or covenant.

Driveway permits issued by the Tennessee Department of Transportation shall not be construed so as to allow driveways to be built without also meeting the requirements of these regulations. Any driveway restriction required by these regulations or by the Dickson Municipal Planning Commission shall be in addition to any restriction imposed by the Tennessee Department of Transportation.

- D. The Planning Commission may reduce the driveway location provisions provided that physical features present at the site such as topography, site distance, existing roads and driveways, flood prone areas, etc. are present and that enforcement of such restrictions would be contrary to the protecting public safety.

Table 1 Road and Driveway Sight Distance Requirements	
Posted Speed Limit For Collector and Arterial Streets (Miles Per Hour)*	Minimum Sight Distance
25	280'
30	335'
35	390'
40	445'
45	500'
50	555'
55	610'
<p>* Sight Distance shall be 250' for all streets not classified as collector or arterial in the Dickson County Major Thoroughfare Plan.</p> <p>Plated lots or other parcels less than 5 acres utilizing easements must meet the minimum sight distance requirements of this chart.</p>	

Table 2 Driveway Spacing Requirements for Non-Residential Subdivisions				
Thoroughfare Classification	Minimum Distance (Spacing) Same Side	Minimum Offset (Opposite Side)		
Principal Arterial	300'	150'		
Major Arterial	300'	150'		
Minor Arterial	200'	100'		
Principal Collector	150'	75'		
Major Collector	150'	75'		
Minor Collector	150'	75'		
Other streets/ Minor Streets	25' #	50' #		
<p>Plated lots or other parcels less than 5 acres utilizing easements must meet the minimum distance and offset requirements of this chart except where such easement shares a driveway with a lot with road frontage. # Except for driveways located on cul-de-sacs.</p>				

**Table 3
Minimum Distance from Driveway to Roadway Intersection**

Thoroughfare Classification Street Where Driveway is Located	Intersecting Street						
	Principal Arterial	Major Arterial	Minor Arterial	Principal Collector	Major Collector	Minor Collector	Minor Street
Other streets/ Minor Streets	150'	150'	100'	100'	75'	75'	50'
Minor Collector	150'	150'	125'	100'	100'	100'	NP
Major Collector	150'	150'	125'	125'	100'	NP	NP
Principal Collector	200'	150'	150'	125'	NP	NP	NP
Minor Arterial	200'	200'	150'	NP	NP	NP	NP
Major Collector	200'	200'	NP	NP	NP	NP	NP
Principal Arterial	250'	NP	NP	NP	NP	NP	NP

NP: Not Permitted. Driveways Must be Placed on Lessor Classed Thoroughfare.

4-103.3 Right-of-Way Width Dedication on Existing Streets

Where a subdivision adjoins an existing narrow street or where the major street or road plan or any zoning setback provisions indicate plans for realignment or widening of a street that would require use of some of the land in the subdivision, the subdivider shall be required to dedicate, at his expense, areas for widening or realigning such street as set forth below:

1. the entire right-of-way shall be provided where any part of the subdivision is on both sides of the existing street; or
2. when the subdivision is located on one side of an existing street, one half of the required right-of-way, measured from the center line of the existing pavement, shall be provided.

4.104 Private Streets

1. Where any ownership, control, and maintenance of any street is proposed to remain in private ownership such streets shall be constructed to the design and construction standards as herein provided. Such streets shall also be inspected by the City of Dickson during their construction so as to insure they are properly built.
2. All private roads and improvements shall be maintained by the developer or a legally established homeowners association or other similar group approved by the Planning Commission. An annual assessment shall be made to each property to insure that sufficient funds are available to repair or resurface the private road. The amount of the initial assessment shall be approved by the Dickson Planning Commission. The legal documents establishing the ownership and maintenance of the private road shall be submitted with the final plat and shall be recorded with the final plat.
3. Any gated entrance used to access a private street shall be equipped with an emergency switch that requires no key or password or other security device in order to open the gate. This switch shall be clearly visible and labeled as an emergency access device. A pulldown fire alarm type switch is preferred. Exceptions to this requirement may be made if the emergency access device is approved by the Planning Commission and the Dickson Fire Marshal.

4-105 Drainage and Storm Sewers

4-105.1 General Requirements

The Planning Commission shall not approve any plat of a subdivision which does not make adequate provision for storm water or floodwater run-off

channels or basins. The storm water drainage system shall be separate and independent from any sanitary sewer system.

4-105.2 Nature of Storm Water Facilities

4-105.201 Location

The subdivider may be required by the Planning Commission to transport by pipe or open ditch any spring or surface water that may exist prior to or as a result of the subdivision. Such drainage facilities shall be located in the street right-of-way, where feasible, or in perpetual unobstructed easements of appropriate width and shall be constructed in accordance with the construction specifications contained in these regulations.

4-105.202 Accessibility to Public Storm Sewers

- a. Where a public storm sewer is accessible, the developer shall install storm sewer facilities, or if no outlets are within a reasonable distance, adequate provision shall be made for the disposal of storm waters, subject to the specifications of the appropriate governmental representative; inspection of facilities shall be conducted to assure compliance. Inspection of facilities shall be conducted by the enforcing officer.
- b. If a connection to a public storm sewer will be provided eventually, as determined by the Planning Commission, the subdivider shall make arrangements for future storm water disposal by a public system at the time the plat receives final approval. Provisions for such connection shall be incorporated by inclusion in the performance bond required for the final subdivision plat.

4-105.203 Accommodation of Upstream Drainage Areas

A culvert or other drainage facility shall in each case be large enough to accommodate potential runoff from its entire upstream drainage area, whether inside or outside the subdivision. Necessary facilities shall be sized based on the construction specifications and assuming conditions of maximum potential watershed development permitted.

4-105.204 Effect on Downstream Drainage Areas

The developer shall also prepare and submit to the city engineer a study of the effect of each subdivision on existing downstream drainage facilities outside the area of the subdivision. The City Planning Commission may require offsite improvements to structures such as culverts or road crossings that are inundated as a result of additional runoff generated by the proposed development.

On site storm water detention proposed to reduce the peak rate of discharge shall not cause increased peak flows or velocities detrimental to downstream properties or facilities. When detention

facilities are utilized, the peak rate of discharge after development shall not exceed the predevelopment peak rate with adequate provision made to prevent erosion. Infiltration systems that reduce the volume of runoff are encouraged.

Should it be determined by the city engineer that downstream conditions dictate additional control of additional storms (up to the twenty-five (25) year design storm), the developer shall install flow control devices (weir, etc.), as approved by the city engineer.

Detention facilities shall be platted as perpetual drainage easements and shall be maintained by the property owner or the owners' association, as applicable. The government of the City of Dickson will in no way be responsible for maintenance of drainage facilities on private property. Estimated increases in discharge velocity shall be mitigated by energy dissipation devices where required to prevent erosion.

The drainage system shall be designed to honor natural drainage divides, where practical. Surface waters shall not be concentrated and discharged onto adjoining property at rates and/or velocities exceeding predevelopment conditions unless an easement expressly authorizing such discharge has been granted by the owner of the affected land or unless the discharge is into an adequate natural watercourse or drainage system.

4-105.205 Areas of Poor Drainage

Whenever a plat is submitted for an area which is subject to flooding, the Planning Commission may approve such subdivision; provided, that the applicant fills the affected floodway fringe area of said subdivision to place public way elevations at no more than one (1) foot above the regulatory flood elevation and first floor elevations (including basements) at no less than one (1) foot above the regulatory flood elevation. The plat of such subdivision shall provide for a floodway along the bank of any stream or watercourse of width sufficient to contain or move the water of the regulatory flood, and no fill shall be placed in the floodway; neither shall any building nor flood-restrictive structure be erected or placed therein. The boundaries of the floodway and floodway fringe area, and the regulatory flood elevation, shall be determined by the city engineer based upon the review specified in Subsection 2-103.2, of these regulations, and the submission of flood data in construction plans as specified in Section 5-103, of these regulations. In the event that such data is unavailable, the developer shall cause such studies to be made by a consulting engineer experienced in riverine hydrology and hydraulics. The study shall be subject to review and approval by the city engineer.

When sinkholes are encountered, the limits of any standing water shall be determined by the developer based upon competent engineering. The Planning Commission may prohibit construction in and around sinkholes. Any alteration of a sinkhole or the drainage pattern shall be

approved by the city engineer and Planning Commission. (See Subsection 4-102.502.) Additionally, any permits required by the State of Tennessee shall be obtained for work affecting a sinkhole.

4-105.206 Riparian Buffers

A 25' riparian buffer strip along all blueline streams is required. Note that State of Tennessee or other governing body may require a larger riparian buffer strip. This 25-foot wide buffer shall be measured from the top of bank on the side of the proposed development.

4-105.207 Storm Water Detention and Discharge Control

- a. The policy of the Dickson Municipal Planning Commission is to require that there be no post development increase in storm water resulting from the development of any subdivision within the City of Dickson.
- b. Any drainage system which discharges without some form of detention shall route its water along a designated public drainage easement. A drainage system can be allowed to discharge along an existing (prescriptive) but nonrecorded easement if all of the following are true:
 - (i) Post-development flow is less than or equal to the pre-development flow at the same location. (See Subsection 4-105.204.)
 - (ii) In order to prevent erosion at all outlet points, the engineer will be required to design and submit for approval an outlet system that approximates the width and velocity of the flow which existed prior to development.

4-105.3 Dedication of Drainage Easements

4-105.301 General Requirements

Where a subdivision is traversed by a watercourse, drainageway, channel, or stream, there shall be provided a storm water easement or drainage right-of-way conforming substantially to the lines of such watercourse and of such width and construction as will be adequate. Where open drainageways are utilized they shall be designed for the twenty-five (25) year frequency flood.

4-105.302 Drainage Easements

- a. Where topography or other conditions are such as to make impracticable the inclusion of drainage facilities within a street right-of-way, perpetual unobstructed easements at least ten (10) feet in width for such facilities shall be provided across property outside the street lines and with satisfactory access to

streets. Easements shall be indicated on the preliminary and final plats. Drainage easements shall be carried from the street to a natural watercourse or to other drainage facilities. Easement widths shall be sufficient to contain any planned drainage facilities.

- b. When a new drainage system is to be constructed which will carry water across private land outside the subdivision, appropriate drainage rights must be secured and indicated on the plat.
- c. The applicant shall dedicate, when required by the Planning Commission, either in fee, or by drainage or conservation easement, the land on both sides of an existing watercourse to a distance to be determined by the Planning Commission.
- d. Along watercourses, low-lying lands within any floodway, as determined by the Planning Commission pursuant to Section 2-103, of these regulations, whether or not included in areas for dedication, shall be preserved and retained in their natural state as drainage ways.

4-105.303 Drainage Construction

All ditch, channelization, culvert, storm drain, or catch basin construction shall be governed by the Specifications for Drainage Construction, included as Appendix B. These specifications are adopted and made a part of these regulations.

4-106 Water Facilities

All public water systems shall be installed as per the requirements and after approval of the Water Authority of Dickson County.

4-106.2 Fire Hydrants

Fire hydrants shall be required in all subdivisions; they shall be located no more than one thousand (1000) feet apart by street or so that no building envelope (whether residential, commercial, or industrial) shall be more than five hundred (500) feet from any fire hydrant as measured by the servicing street. However, the Planning Commission may require closer spacing where physical conditions or types of structures so warrant. Likewise, the Planning Commission may ask that the City Fire Marshall recommend the spacing and location of fire hydrants for developments that utilize the cluster development provisions of the Zoning Ordinance, for commercial subdivisions, for planned developments, or for multi-family developments. To eliminate future street cuttings or openings, all underground utilities for fire hydrants, together with the fire hydrants themselves, and all other water supply improvements shall be installed before any final paving of a street shown on the subdivision plat.

Where four (4) or more lots are being subdivided along existing public ways and adequate water lines are available, (six (6) inches in diameter or greater), fire hydrants shall be installed and color coded in cooperation with the appropriate utility district. See Appendix C, for Color Code Standard.

4-107 Sewage Facilities

4-107.1 General Requirements

The applicant shall install sanitary sewer facilities in a manner prescribed by the regulations of the Tennessee Department of Environment and Conservation and by any other applicable standards and specifications. All plans shall be designed and approved in accordance with the rules, regulations, specifications, and standards, of any applicable governmental agency or appropriate unit, thereof. All public sewer facilities shall be submitted to and approved by the Water Authority of Dickson County.

4-107.2 Mandatory Connection to Public Sewer System

1. When public sanitary sewers are within reasonable access of the subdivision, as determined by the Planning Commission, the subdivider shall provide sanitary sewer facilities to each lot therein and shall connect the facilities to the public system. The subdivider shall provide sewers which meet standards set forth in the regulations of the Tennessee Department of Environment and Conservation.

4-107.3 Individual Disposal System Requirements

If public sewer facilities are not available and individual disposal systems are proposed, lot areas shall not be less than the minimums specified in these regulations; all pertinent soil absorption tests shall be made as directed by the county environmentalist and the results submitted to the local office of the State Department of Environment and Conservation for approval.

The individual disposal system, including the size of the septic tank and size of the tile fields or other secondary treatment device, also shall be approved by the local office of the State Department of Environment and Conservation.

Upon recommendation of the local office of the State Department of Environment and Conservation, the Planning Commission may prohibit installation of sewage disposal facilities requiring soil absorption systems where such systems will not function due to high ground water, flooding, or unsuitable soil characteristics. The Planning Commission may require that the subdivider note on the face of the plat and any deed of conveyance that soil absorption fields are prohibited in designated areas.

4-107.4 Design Criteria for Sanitary Sewers

All public sanitary sewer systems shall be installed as per the design requirements of the Water Authority of Dickson County and only after their approval.

1. All sanitary sewer facilities located in a flood hazard area shall be floodproofed to the regulatory flood protection elevation. All sewerage facilities located below the regulatory flood protection elevation shall be designed to prevent infiltration of floodwaters into the sewer system and discharges from the system into floodwaters.

2. No manholes shall be located closer to the top of a bank of a stream than the width of such stream from bank to bank.

4-108 Pedestrian Ways

4-108.1 Sidewalks and Bicycle Paths

Sidewalks and bicycle paths, where required by the Planning Commission, shall be included within the dedicated nonpavement right-of-way of all streets as indicated in the following table and shall be improved as required by Subsection 4-103.4, of these regulations. Concrete curbs are required for all streets where sidewalks are to be constructed. A median strip of grassed or landscaped area at least two (2) feet wide shall separate all sidewalks from adjacent curbs.

SIDEWALK DESIGN

<u>Class of Street</u>	<u>Sidewalk Width</u>
Nonresidential Road (Industrial, Commercial)	6 Feet Wide
<u>Residential Road</u>	
Minor Street	5 Feet Wide
Other Thoroughfares	6 Feet Wide

4-108.2 Pedestrian Accesses

The Planning Commission may require, in order to facilitate pedestrian access from the street to schools, parks, playgrounds, or other nearby streets, perpetual unobstructed easements at least twenty (20) feet in width. Easements shall be indicated on the plat.

4-109 Utility Easements

- A. Easements down rear lot lines or additionally across lots, if deemed necessary by the Planning Commission, shall be provided for utilities (private or public). Such easements shall be at least ten (10) feet wide, except for across-lot easements which shall be at least twenty (20) feet wide. The subdivider shall take such actions as are necessary to ensure the

- coordination and continuation of utility easements established on adjacent properties with those proposed within his development.
- B. Where topographical or other conditions are such as to make impractical the inclusion of utilities within rear lot lines, perpetual unobstructed easements at least ten (10) feet in width shall be provided along side lot lines with satisfactory access to streets or rear lot lines. Easements shall be indicated on the plat.
- C. Temporary construction easements exceeding the width of permanent easements may be required as necessary until completion of any one project.

4-110 Public Uses

4-110.1 Plat to Provide for Public Uses

Whenever a tract to be subdivided includes a school, recreation use, a portion of a major street, or other public use, as indicated on the land development plan and/or major street or road plan, or any portion thereof, such tract shall be suitably incorporated by the developer into his plat when first presented for review by the Planning Commission.

After proper determination of its necessity by the Planning Commission and the appropriate governmental representative(s) involved in the acquisition and use of such site, and after a determination has been made to acquire the site by the public agency, the site shall be suitably incorporated by the developer into the plat prior to final approval by the Planning Commission and recording of the plat.

4-110.2 Referral to Public Body

The Planning Commission shall refer any plat presented in accordance with Subsection 4-110.1, to the public body concerned with acquisition of the land. The Planning Commission may propose alternate areas for such acquisition and shall allow the appropriate governmental agency thirty (30) days for reply.

Among the areas which the Planning Commission may propose for public acquisition, when the commission deems it appropriate and consistent with the policies and purposes set forth in Section 1-104, Subsections 2-101.4, 4-101.4, and Section 4-111, of these regulations, is any land within a floodway or floodway fringe determined according to the procedure described in Section 2-103, of these regulations.

The acquiring agency's recommendation, if affirmative, shall include a map showing the boundaries and area of the parcel to be acquired and an estimate of the time required to complete the acquisition.

4-110.3 Notice to Property Owner

Upon receipt of an affirmative report, the Planning Commission shall notify the property owner and shall designate on all plats any areas proposed to be acquired by any public body. Upon such designation by the Planning

Commission, any reserved portion of any floodway or floodway fringe shall not be altered from its natural state by the development in any manner whatsoever, except upon written approval of the Planning Commission.

4-110.4 Duration of Land Reservation

The acquisition of land reserved by a governmental agency on the final plat shall be initiated within twenty-four (24) months of notification, in writing, from the owner that he intends to develop the land. Such letter of intent shall be accompanied by a plat of a proposed development and a tentative schedule of construction. Failure on the part of the governmental agency to initiate acquisition within the prescribed twenty four (24) months shall result in the removal of the "reserved" designation from the property involved and the freeing of the property for development in accordance with these regulations.

4-111 Preservation of Natural Features and Amenities

Existing features which would add value to residential development or to the planning region as a whole, such as trees, watercourses and falls, historic spots, and similar irreplaceable assets, shall be preserved in the design of the subdivision, as required by the Planning Commission. No trees shall be removed from any subdivision nor any change of grade of land effected until approval of a preliminary subdivision plat has been granted. All trees on the plat required to be retained shall be preserved, and all trees, where required, shall be welled and protected against change of grade. When required the preliminary plat shall show the number and location of existing trees and shall indicate all those marked for retention.

4-112 Nonresidential Subdivisions

4-112.1 General

If a proposed subdivision includes land which is zoned for a commercial or industrial purpose, or if not zoned, includes land intended by the applicant as a commercial or industrial use, the layout of the subdivision with respect to such land shall make such provisions as the Planning Commission may require. A nonresidential subdivision also shall be subject to all the requirements of site plan approval set forth in any zoning ordinance. Site plan approval may proceed simultaneously at the discretion of the Planning Commission. A nonresidential subdivision shall be subject to all the requirements of these regulations, as well as, such additional standards set forth by the Planning Commission, and shall conform to the proposed land use plan, major thoroughfare plan, and zoning ordinance.

4-112.2 Standards

In addition to the principles and standards in the regulations, which are appropriate to the planning of all subdivisions, the subdivider shall demonstrate to the satisfaction of the Planning Commission that the street, parcel, and block pattern proposed is specifically adapted to the uses anticipated and takes into account other uses in the vicinity. The following principles and standards shall be observed:

1. proposed industrial parcels shall be suitable in areas and dimensions to the types of nonresidential development anticipated;

2. street rights-of-way and pavements shall be adequate to accommodate the type and volume of traffic anticipated;
3. special requirements may be imposed by the governing body with respect to any street, curb, gutter, and sidewalk design and construction specifications;
4. special requirements may be imposed by the governing body with respect to the installation of public utilities, including water, sewer, and storm water drainage;
5. every effort shall be made to protect adjacent residential areas from potential nuisance from the proposed nonresidential subdivision, including the provision of extra depth in parcels backing on existing or potential residential development and provisions for permanently landscaped buffer strips, when necessary; and
6. Roads carrying nonresidential traffic, especially trucks, normally shall not be extended to the boundaries of adjacent existing or potential residential areas.

ARTICLE V
SPECIFICATIONS FOR DOCUMENTS TO BE SUBMITTED

5-101 Sketch Plat

5-101.1 General

Sketch plats submitted to the Office of Planning and Zoning, prepared in pen or pencil, shall be drawn to a scale of one hundred (100) feet to one (1) inch.

5-101.2 Features

The sketch plat shall show:

1. a scale drawing of the property and the names of the owners of adjoining property;
2. size of the original tract(s) being subdivided;
3. notation of any existing legal rights-of-way or easements, or other encumbrances affecting the property;
4. approximate topography of the site, at no more than five (5) foot intervals, extended into adjacent properties;
5. any areas which may be affected by flooding;
6. general public way and lot patterns;
7. proposed phasing, if any;
8. vicinity map of property;
9. date and approximate north point;
10. name of owner;
11. name of plat designer; and
12. zoning classification.

5-102 Preliminary Plat

5-102.1 General

The preliminary plat shall be prepared by a surveyor engaged in the practice of land surveying at a scale of one hundred (100) feet to one (1) inch. The plat may be prepared in pen or pencil, and the sheets shall be numbered in sequence if more than one sheet is used. The map prepared for the

preliminary plat may be used for the final subdivision plat and should be permanently reproducible.

5-102.2 Features

The preliminary plat shall include:

1. the location of the property to be subdivided with respect to surrounding property(s) and public way(s);
2. the names of all adjoining property owners of record, or the names of adjoining developments;
3. the names of adjoining public ways;
4. the location and dimensions of all boundary lines of the property, figured to the nearest hundredth (100th) of a foot;
5. the location of existing public ways, easements, water bodies, streams, and other pertinent features, such as swamps, railroads, buildings, parks, cemeteries, drainage ditches, and bridges, as determined by the Planning Commission;
6. the location and width of all existing and proposed easement, alleys, and other public ways, and building setback lines;
7. the location, dimension, and area of all proposed or existing lots;
8. culverts, driveway tiles, associated drainage structures sized along with necessary easements; electrical and telephone easements;
9. the position of all existing or proposed buildings within proposed condominium developments;
10. the location and dimension of all property proposed to be set aside for park or playground use or other public or private reservation, with designation of the purpose thereof, and conditions, if any, of the dedication or reservation;
11. flood map reference number and date; the limits of floodway and floodway fringe areas and the associated regulatory flood elevation and regulatory flood protection elevation, as determined according to flood maps or flood studies as required;
12. the name and address of the owner(s) of land to be subdivided, the subdivider if other than the owner, and the land surveyor or other person preparing the plat;
13. the date of the plat, approximate true north point, scale, and title of the subdivision;
14. sufficient data to determine readily the general location, bearing, and length of all lines necessary to reproduce such lines upon the ground;

15. name of the subdivision and all new public ways, as approved by the Planning Commission;
16. the zoning classification of all zoned lots, as well as an indication of all uses other than residential proposed by the subdivider;
17. the approximate distance and bearing of one of the corners of the boundary of the subdivision to the nearest intersection of existing public ways and to the original corner of the original survey of which it is a part;
18. key map showing relation of the subdivision to all public ways, railroads, and water courses in all directions to a distance of at least one-half (1/2) mile (suggested scale: one (1) inch to one thousand (1,000) feet);
19. contours at vertical intervals of not more than two (2) feet where the proposed subdivision has an average slope of five (5) percent or less, or at vertical intervals of not more than five (5) feet where the average slope exceeds five (5) percent (contours to be field surveyed or taken from aerial photographs acceptable to the Planning Commission) where new road and drainage construction is involved;
20. map parcel numbers as recorded on the land tax maps of the county;
21. The following notations:
 - (a) explanation of drainage easements;
 - (b) explanation of site easements;
 - (c) explanation of reservations; and
 - (d) for any lot where public sewer or water systems are not available, the following:
 - (i) areas to be used for sewage disposal and their percolation results, or if the Planning Commission desires, any other acceptable data to show that the site can be served effectively by septic tanks;
 - (ii) water wells (existing and proposed); and
 - (iii) rock outcroppings, marshes, springs, sinkholes, natural storm drains, and other outstanding topographical features;
22. a form for endorsement of Planning Commission approval of the preliminary plat which shall read as follows:

Approved by the Dickson Municipal Planning Commission, with such exceptions or conditions as are indicated in the minutes of the Commission on _____.

date

Preliminary plat approval shall not constitute final approval for recording purposes.

5-103 Construction Plans

5-103.1 General

Construction plans shall be prepared for all improvements required by these regulations. Plans shall be drawn at a scale of no more than fifty (50) feet to an inch. Plans shall be in compliance with the specifications in Article IV, of these regulations. Approval of plans must precede actual construction, and no final plat shall be considered by the Planning Commission until the required plans have been approved. The construction plans shall be prepared and stamped by a licensed engineer engaged in the practice of civil engineering. Design calculations for drainage, structures, and special construction items will be submitted for review.

5-103.2 Features

The following shall be shown on the construction plans.

1. Profiles showing existing and proposed elevations along center lines of all public ways.
2. Where a proposed road intersects an existing public way or ways, the elevation along the center line of the existing public way within one hundred (100) feet of the intersection and sight illustrating adequate sight distance.
3. Approximate radii of all curves, lengths of tangents, and central angles on all public ways.
4. Proposed public ways, as required by the Planning Commission; where such are required, horizontal stationing shall be at fifty (50) foot intervals and cross-sectional elevations shall be to an accuracy of one tenth (1/10) foot vertical on a line at right angles to the center line of the public way at the following points: the center line of the public way, each property line, and points twenty-five (25) feet inside each property line.
5. Plans and profiles indicating the locations and typical cross-section of public way pavements, including curbs and gutters, sidewalks, drainage easements, rights-of-way, manholes, and catch basins.
6. The location of public way signs.
7. The location, size, and invert elevations of existing and proposed sanitary sewers, stormwater drains, and fire hydrants, showing connection to any existing or proposed utility system. Utilities parallel to, or crossing, the proposed roadways shall also be shown in the road profiles.

8. Exact location and size of all water, gas, or other underground utilities or structures.
9. Location, size, elevation, and other appropriate description of any existing facilities or utilities, including but not limited to, existing public ways, sewers, drains, water mains, easements, water bodies, streams, and other pertinent features, such as swamps, railroads, buildings, and features noted on the land development plan or major street or road plan.
10. The water elevations of adjoining lakes or streams and the approximate high- and low-water elevations of such lakes or streams shall be shown. All elevations shall be referred to the U.S.G.S. datum plane.
11. If the subdivision borders a lake, river, or stream, the distance and bearings of a meander line established not less than twenty (20) feet back from the ordinary high-water mark of such waterways.
12. The developer shall prepare for any portion of a subdivision containing a flood prone area, or an area known to be subject to flooding, information necessary for the Planning Commission to determine the suitability of the particular site for the proposed development, as follows:
 - (a) plans in triplicate drawn to scale showing the nature, location, dimensions, and elevation of any part of the subdivision within a flood prone area; existing or proposed structures or building sites, fill, storage of materials and floodproofing measures, as specified in these regulations; and the relationship of the above to the location of the stream channel, floodway, floodway fringe, the regulatory flood elevation, and the regulatory flood protection elevation;
 - (b) a typical valley cross-section showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development, and high-water information, if required by the Planning Commission;
 - (c) surface-view plans showing elevations and contours of the ground as well as any area inundated by the base flood (100-year);
 - (d) pertinent structures, fill, or elevations of public ways;
 - (e) water supply, sanitary facilities, soil types, and other pertinent information, as required by the Planning Commission; and
 - (f) specifications for building construction and materials, flood proofing, filling, dredging, grading, storage of materials, water supply, and sanitary facilities.

13. Contours at the same vertical interval as on the preliminary plat.
14. In addition to the other requirements of this section, construction plans for condominium subdivisions shall contain "as built" drawings of all underground utilities, regardless of proposed ownership, and the construction design of all public facilities which are proposed for dedication to the governing body.
15. A notation of construction plans approval by appropriate persons or governmental representatives.
16. Title, name, address, stamp and signature of engineer who prepared the plans.
17. Date of plans, including any revision dates.
18. An erosion and sediment control plan shall be prepared for each development required to submit construction plans. Such plan shall demonstrate the manner in which the general principals for erosion and sediment control set out in Subsection 4-102.603, are to be implemented on the site covered by the construction plans. This provision applies regardless of the acreage of the proposed subdivision.

5-104 Final Subdivision Plat

5-104.1 General

The final subdivision plat shall be prepared on transparent drafting material at a scale of one hundred (100) feet to one (1) inch, on sheets of county register plat book size. The use of an appropriate smaller scale may be permitted for lots larger than two (2) acres. When more than one (1) sheet is required, an index sheet of the same size shall be filed showing the entire subdivision with the sheets numbered in sequence.

Construction plans, if required as described in Section 5-103, of these regulations, shall have been approved prior to Planning Commission approval of the final subdivision plat.

5-104.2 Features

The final plat shall include:

1. The location of the property to be subdivided with respect to surrounding property(s) and public ways.
2. The names of all adjoining property owners of record or the names of adjoining developments.
3. The names of adjoining public ways.

4. The exact boundary lines of the tract, determined by a field survey, showing angles to the nearest minute and distance to the nearest one hundredth ($1/100$) of a foot. The adjusted accuracy of the survey shall meet or exceed the standards set forth in Title 62, Chapter 18, of the Tennessee Code, for a Category II (Suburban Subdivision). The survey shall be tied into the Tennessee Grid Coordinate System if a controlled monument is located within one-fourth ($1/4$) mile to any point of the property.
5. The location of all public ways, easements, water bodies, large streams or rivers, railroads, parks, and cemeteries.
6. Flood map reference number and date; the limits of floodway and floodway fringe areas and the regulatory flood elevation and regulatory flood protection elevation; as determined by the Planning Commission.
7. The location and width of all easements and rights-of-way for public ways, as well as the building setback lines on all lots.
8. The location, dimensions, and area of all lots. All dimensions shall be field run to the nearest one hundredth of a foot and angles to the nearest minute. Lot areas shall be shown to the nearest tenth of a square foot.
9. The location, area, and dimensions, to the accuracy set forth in Item 8, above, of all property to be set aside for park or playground use or other public or private reservation, with a designation of the purpose thereof, and conditions, if any, of the dedication or reservation.
10. The final plat of a condominium subdivision shall contain, in addition to the other information required by this section:
 - (a) a proposed building location and boundary survey, to "American Land Title Association" or other similar standards, showing complete and accurate dimensions and angles of the boundary of the parcel(s) on which the condominium is located, together with exterior dimensions and locations relative to those boundaries of the building(s) which constitute the condominium subdivision. When existing buildings are being subdivide "as built" surveys shall be submitted;
 - (b) some sort of datum plane or other suitable vertical location reference. In meeting these requirements, it is only necessary that the upper and lower limits of each level of each condominium unit be identified specifically in relation to the vertical reference, (e.g., an appropriate permanent monument or other acceptable reference datum or fixed known point). Elaborate exterior elevations and architectural detail are not necessary to satisfy this requirement;
 - (c) copies of deed covenants, the charter and By-Laws of any Homeowners' Association established; and special information which the Planning Commission may require to protect the

rights of future owners of the condominium or the public in general.

11. The name and address of the owner(s) of the land being subdivided.
12. The name and address of the subdivider if other than the owner.
13. The name and stamp of the land surveyor or other person preparing the plat.
14. The date of the plat, approximate true north point, scale, and title of the subdivision.
15. Sufficient data to determine readily the location, bearing, and length of all lines necessary to reproduce such lines upon the ground. This shall include the radius, central angle, and tangent distance for the center line of the curved public ways and curved property lines that are not the boundary of curved public ways. The location of all monuments and pins shall be indicated on the plat.
16. The names of all public ways.
17. The zoning classification of all lots, as well as an indication of uses other than residential proposed by the subdivider.
18. The total acreage within the subdivision.
19. Lot numbers, where required.
20. The line size and location of water and sewer facilities.
21. The location of all fire hydrants.
22. The diameter and width of all driveway culverts.
23. For any lot where public sewer or water system is not available, the following shall be shown:
 - (a) areas to be used for sewage disposal; and
 - (b) water wells (existing and proposed).
24. Applicable certifications in the form reproduced in this section shall appear upon the final plat. All required certificates shall bear the signature of the approving or authorizing agent at the time of application for final plat approval, except that the form for endorsement of the Planning Commission's approval for recording shall appear unsigned at the time of application for approval.
25. State Department of Environment and Conservation, public water and sewer design layout and approval stamps, if applicable; also, actual design plans for filing in appropriate governmental representative's office.

- 3. Certification by appropriate governmental or quasi-governmental official(s) that sewage disposal and/or water system(s) has/have been installed.

CERTIFICATE OF APPROVAL OF WATER SYSTEM

I hereby certify that the water system(s) outlined or indicated on the final subdivision plat entitled _____ has/have been installed in accordance with current local and state government requirements, or a sufficient bond or other surety has been filed to guarantee said installation.

_____, 20____
 Date _____

 Name, Title and Agency or
 Authorized Approving Agent

CERTIFICATE OF APPROVAL OF SEWER SYSTEMS

I hereby certify that the sewer systems outlined or indicated on the final subdivision plat entitled _____ have been installed in accordance with current local and state government requirements or a sufficient bond or cash has been filed which will guarantee said installation.

Sewer System _____, 20____
 Date _____

 Name, Title, and Agency of
 Authorized Approving Agent

**CERTIFICATE OF APPROVAL
 PRIVATE SUBSURFACE SEWAGE DISPOSAL**

General approval is hereby granted for lots proposed hereon as being suitable for subsurface sewage disposal with the listed and/or attached restrictions.

Before the initiation of construction, the location of the house or other structures and plans for the subsurface sewage disposal system shall be approved by the local health authority.

_____, 20____
 Date _____

 Local Health Authority

FORM FOR OFFER OF IRREVOCABLE DEDICATION

AGREEMENT made this ____ day of _____, 20__, by and between _____, a _____, having its office and place of business at _____, Tennessee, hereinafter designated as the "local government".

WHEREAS, the Dickson Municipal Planning Commission is in the process of approving a subdivision plat entitled, _____, dated, _____, and made by _____; and

WHEREAS, said map designates certain public improvements consisting of _____ to be dedicated to the City of Dickson, free and clear of all encumbrances and liens, pursuant to the requirements of the Planning Commission and the local government; and

WHEREAS, the developer, simultaneously herewith, shall post a performance bond with the city for the construction, maintenance, and dedication of said improvements, if required;

WHEREAS, the developer is desirous of offering for dedication the said improvements and land to the city more particularly described in Schedule _____, attached hereto;

WHEREAS, the developer has delivered deeds of conveyance to the city for the said land and improvements as described herein;

NOW, THEREFORE, in consideration of the sum of one dollar (\$1.00) lawful money of the United States paid by the city to the developer and other good and valuable consideration, it is mutually **AGREED** as follows:

- A. The developer herewith delivers to the city deeds of conveyance for the premises described in Schedule _____, attached hereto, said delivery being a formal offer of dedication to the city until the acceptance or rejection of such offer of dedication by the city commission.
- B. The developer agrees that said formal offer of dedication is irrevocable and can be accepted by the city at the time.
- C. The developer agrees to complete the construction and maintenance of the land and improvements pursuant to the performance bond and the requirements of the _____ Planning Commission and any ordinances, regulations, requirements, covenants, and agreements that may be imposed by the city with respect thereto and, upon acceptance by the city of the offer of dedication, furnish to the city a sworn statement certifying that the premises are free and clear of all liens and encumbrances and shall furnish to the city a check for all necessary fees and taxes to record the deeds heretofore delivered.
- D. That this irrevocable offer of dedication shall run with land and shall be binding on all assigns, guarantees, successors, or heirs of the developer.

_____, 20____
Date _____ Developer

(CORPORATE SEAL)

ATTEST: FOR THE COUNTY OF DICKSON BY

_____, 19____

**ACKNOWLEDGEMENT:
COPARTNERSHIP**

STATE OF TENNESSEE

(COUNTY OF _____) SS.: _____

On this ____ day of _____, 20____, before me personally appeared _____, to me known and known to me to be one of the firm _____, described in and who executed the foregoing instrument, and he thereupon acknowledged to me that he executed such instrument as and for the act and deed of said firm.

CORPORATE

STATE OF TENNESSEE

(COUNTY OF _____) SS.: _____

On this ____ day of _____, 20____, before me personally appeared _____, to me known, who, being by me first duly sworn, did depose and said that he resides in _____; that he is the _____ of _____, the corporate seal affixed to said instrument is such corporate seal; that it was so affixed by order and authority of the Board of Directors of said corporation, and that he signed his name thereto by like order and authority.

INDIVIDUAL

ARTICLE VI

DEFINITIONS

6-101 Usage

- A. For the purpose of these regulations certain numbers, abbreviations, terms, and words used herein shall be used, interpreted, and defined as set forth in this article.
- B. Unless the context clearly indicates to the contrary, words used in the present tense include the future tense and words used in the plural include the singular; the word "herein" means "in these regulations"; and the word "regulations" means "these regulations".
- C. A "person" includes a corporation, a partnership, and an unincorporated association of persons, such as a club; "shall" is always mandatory; a "building" or "structure" includes any part thereof; "used" or "occupied", as applies to any land or building, shall be construed to include "intended, arranged, or designed to be used or occupied".

6-102 Words and Terms Defined

Alley -- A public or private right-of-way primarily designed to serve as secondary access to the side or rear of those properties whose principal frontage is on some other street.

Applicant -- The owner of land proposed to be subdivided or his authorized representative. Consent shall be required from the legal owner of the premise(s).

Architect -- An architect or landscape architect certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Title 62, Chapter 2, Tennessee Code, to practice in Tennessee.

Arterial Street or Road -- A major public way intended to move traffic to and from major industrial areas or a route for traffic between communities or large areas and which has an average daily traffic count in excess of three thousand (3,000).

Block -- A tract of land bounded by public ways or by a public parks, cemeteries, railroad rights-of-way, or shorelines or waterways or a combination of such.

Bond -- An instrument with a clause, with a sum of money fixed as a penalty, binding the parties to pay the same: conditioned, however, that the payment of the penalty may be avoided by the performance by some one or more of the parties of certain acts.

Building -- Any structure built for the support shelter, or enclosure of persons, animals, chattels, or movable property of any kind; the term includes a mobile home.

Capital Improvements Program -- A proposed schedule of future projects, listed in order of construction priority, together with cost estimates and the anticipated means of financing each project. All major projects requiring the expenditure of public funds, over and above the annual local government operating expenses, for the purchase, construction, or replacement of the physical assets of the community are included.

Collector Street or Road -- A major public way intended to move traffic from local ways to arterial routes. Collector routes serve a neighborhood or large subdivision(s), and normally have an average daily traffic count ranging from one thousand and one (1,001) to three thousand (3,000).

Common Elements -- Any portion of a condominium which is held in common by owners of condominium units. These elements may be either general common elements or limited common elements, as defined below.

General Common Elements -- Any of the common elements of a condominium which are held in joint ownership by all owners of the condominium.

Limited Common Elements -- Any of the common elements of a condominium which are reserved for use by the owner of a particular condominium unit or group of units.

Condominium -- A form of ownership of less than the whole of a building or system of buildings under the provisions of Title 66, Chapter 27, Tennessee Code, which provides the mechanics and facilities for formal filing and recoordination of divided interests in real property, whether the division is vertical or horizontal.

Condominium Subdivision -- The subdivision of property through the establishment of a condominium or horizontal property regime.

Horizontal Condominium Subdivision -- A subdivision where each unit occupies some ground space.

Vertical Condominium Subdivision -- A subdivision of a multi-story building in which one (1) or more units do not occupy ground space.

Condominium Unit -- A space conveyed by separate title and located within a condominium structure.

Construction Plan -- The maps or drawings accompanying a subdivision plat and showing the specific location and design of improvements to be installed in the subdivision in accordance with the requirements of the Planning Commission.

Contractor -- An individual, firm, or corporation with whom an owner or authorized agent has executed a work agreement.

County Environmentalist -- An agent designated to administer local and/or state health regulations.

Cul-de-sac -- A minor street having only one outlet and having an appropriate terminal for the safe and convenient reversal of traffic movement; definition includes: dead end, turn-around, or turn-about.

Design Specifications -- Written descriptions of a technical nature of materials, equipment, construction systems, standards, and workmanship required for a project intended for local government ownership or maintenance.

Developer -- The owner of land proposed to be subdivided or his authorized representative.

Dwelling Unit -- A room, or rooms connected together constituting a separate, independent housekeeping establishment for owner occupancy, rental or lease on a daily, weekly, monthly, or longer basis; physically separated from any other room(s) or dwelling units which may be in the same structure; and containing independent cooking and sleeping facilities.

Easement -- Authorization by a property owner for the use by another, for a specified purpose, of any designated part of his property.

Enforcing Officer -- The building inspector or such person designated by the chief executive officer to be responsible for enforcing the provisions of these regulations.

Engineer -- An engineer certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Title 62, Chapter 2, Tennessee Code, to practice in Tennessee.

Equal Degree of Encroachment -- The delineation of floodway limits so that floodplain lands on both sides of a stream are capable of conveying a proportionate share of flood flows. This is determined by considering the hydraulic conveyance of the floodplain along both sides of a stream for a significant reach.

Escrow -- A fiduciary agreement with the local government in lieu of actual performance and intended to assure performance. An escrow account may be provided as a bond subject to agreement of the Planning Commission.

External Subdivision Boundary -- All points along the periphery of a subdivision.

Final Subdivision Plat -- The final map or drawing and accompanying materials, described in these regulations, on which the subdivider's plan of the subdivision is presented to the Planning Commission for approval and which, if approved by the commission, is recorded with the county register of deeds.

Flood -- A temporary rise in stream level that results in inundation of areas not ordinarily covered by water.

Flood Frequency -- The statistically determined average for how often a specific flood level or discharge may be equaled or exceeded.

Flood Hazard Boundary Map -- An official map on which the boundaries of the floodplain areas having special flood hazards have been delineated.

Flood Hazard or Flood Prone Area -- The maximum area of the floodplain that, on the average, is likely to be flooded once every one hundred (100) years (i.e., that has a one (1) percent chance of being flooded in any year).

Floodplain -- A land area adjoining a river, stream watercourse, bay, or lake which is likely to be flooded. It is composed of a floodway and floodway fringe.

Floodplain Management Program -- The overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, building code regulations, health regulations, zoning ordinance regulations, and these subdivision regulations.

Flood Profile -- A graph showing the water surface elevation or height of a particular flood event for any point along the longitudinal course of a stream. The flood profile is determined through the use of standard open-channel hydraulic calculations.

Floodproofing -- Any combination of structural and nonstructural additions, changes, or adjustments to properties and structures which reduce or eliminate potential flood damage to lands; water facilities, sanitary facilities, and other utilities; structures; and contents of buildings; and which prevent pollution of floodwaters from such natural or man-made sources.

Floodway -- The stream channel and adjacent overbank areas required to carry and safely discharge the 100-year flood without increasing flood levels more than one foot above natural flood levels.

Floodway Encroachment Limits -- The lines marking the limits of floodways on official federal, state, and local floodplain maps.

Floodway Fringe -- The area adjoining a watercourse which, although not lying within a floodway, has been or may hereafter be covered by a 100-year flood.

Frontage -- That side of a lot abutting a public way ordinarily regarded as the front of the lot. It shall not be considered as the ordinary side of a corner lot.

General Plan -- The official statement of the Planning Commission which sets forth major policies concerning future development of the jurisdictional area and meeting the provisions set forth in Sections 13-3-301, 13-3-302, and 13-4-102, Tennessee Code.

Governmental Agency -- Any public body other than the governing body.

Governing Body -- The chief legislative body of any government.

Governmental Representative -- An outside person or designated local official or employee authorized to act on behalf of the governing body in making determinations regarding legal, public works, planning, community development, or other public business.

Grade -- The slope of a public way specified in percentage terms.

Highway, Limited Access -- A freeway or expressway providing a trafficway for through traffic, in respect to which owners or occupants of abutting property(s) or lands and other persons have no legal right of access to or from the trafficway, except at such points and in such manner as may be determined by the public authority having jurisdiction over such trafficway.

Horizontal Property Act -- "The Tennessee Horizontal Property Act" as codified in Title 66, Chapter 2, Tennessee Code.

Individual Sewage Disposal System -- A septic tank, seepage tile sewage disposal system, or any other sewage treatment device other than a public treatment system approved by the appropriate governmental representative.

Internal Subdivision Boundary -- All points within a subdivision which do not constitute external boundaries.

Joint Ownership -- Joint ownership among persons shall be construed as the same owner for the purpose of imposing subdivision regulations.

Jurisdictional Area -- Planning boundary(s) established in keeping with Sections 13-3-102, 13-3-201, and 13-3-301, Tennessee Code.

Land Development Plan -- An element of the general plan which sets out a plan or scheme of future land usage.

Land Surveyor -- A land surveyor certified and registered by the State Board of Land Survey Examiners pursuant to Title 62, Chapter 18, Tennessee Code, to practice in Tennessee.

Legal Counsel -- The person designated by the governing body to provide legal assistance for the administration of these and other regulations.

Lot - A tract, plot, or portion of a subdivision or parcel of land intended as a unit for the purpose, whether immediate or future, of transfer of ownership, or for building development.

Lot, Corner -- A lot situated at the intersection of two (2) public ways.

Lot Improvement -- Any building, structure, place, work of art, or other object or improvement of the land on which they are situated constituting a physical betterment of real property, or any part of such betterment.

Major Street or Road -- A public way which is classified as a collector or arterial public way according to these regulations or by the major street or road plan for the jurisdictional area.

Major Street or Road Plan -- The plan adopted by the Planning Commission, pursuant to Section 13-3-402 and 13-4-302, Tennessee Code, showing, among other things, "the general location, character, and extent of public ways...(and) the removal, relocation, extension, widening, narrowing, vacating, abandonment or change of use of existing public ways..."

Major Subdivision -- All subdivisions not classified as minor subdivisions including but not limited to subdivisions of five (5) or more lots or subdivisions of any size requiring any new or improved road, the extension of government facilities, or the creation of any public improvements, or containing any flood prone area.

Minor Street or Road -- A public way which is not classified as an arterial or collector.

Minor Subdivision -- Any subdivision containing less than five (5) lots fronting on an existing public way; not involving any new or improved public way, the extension of public facilities, or the creation of any public improvements, and not in conflict with

any provision of the adopted general plan, major street or road plan, zoning ordinance, or these regulations.

National Flood Insurance Program -- A program established by the U.S. Government in the National Flood Insurance Act of 1968, and expanded in the Flood Disaster Protection Act of 1973, in order to provide a flood insurance at rates made affordable through a federal subsidy in local political jurisdictions which adopt and enforce floodplain management programs meeting the requirements of the National Flood Insurance Program regulations. The program regulations are found at 24 Code of Federal Regulations, Chapter X, Subchapter B.

Off Site -- Any premise not located within the area of the property to be subdivided, whether or not in the same ownership of the applicant for subdivision approval.

One Hundred-Year Flood -- A flood having an average frequency of occurrence of once in 100 years, although it may occur in any year. It is based on statistical analysis of stream flow records available for the watershed and analysis of rainfall and runoff characteristics in the general region of the watershed.

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 real property.

Performance Bond -- See "Bond".

Perimeter Street -- Any existing street to which the parcel of land to be subdivided abuts on only one side.

Planning Commission -- A public planning body established pursuant to Title 13, Chapters 2 or 5, Tennessee Code, to execute a partial or full planning program within authorized area limits.

Preliminary Plat -- The preliminary drawing or drawings, described in these regulations, indicating the proposed manner of layout of the subdivision to be submitted to the Planning Commission for approval.

Premise(s) -- A tract of land together with any buildings or structures which may be thereon.

Public Improvement -- Any drainage ditch, roadway, parkway, sidewalk, pedestrian way, tree, lawn, off-street parking area, lot improvement, or other facility for which the local government may ultimately assume the responsibility for maintenance and operation or which may affect an improvement for which government responsibility is established.

Public Way -- Any publicly owned street, alley, sidewalk, or lane right-of-way which provides for movement of pedestrians or vehicles.

Reach -- A hydraulic engineering term to describe longitudinal segments of a stream or river. A reach generally includes the segment of the flood hazard area where flood heights are influenced by a man-made area where flood or natural obstruction. In an urban area, the segment of a stream or river between two (2) consecutive bridge crossings typically would constitute a reach.

Regulatory Flood -- The one hundred-year flood.

Regulatory Flood Protection Elevation -- The elevation of the regulatory flood plus one foot of freeboard to provide a safety factor.

Resubdivision -- A change in a map of any approved or recorded subdivision plat altering the number of lots incorporated within the confines of the original plat.

Right-of-Way -- A strip of land occupied or intended to be occupied by a public way crosswalk, railroad, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer line, 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 shall not be included within the dimensions or areas of such lots or parcels.

Sale or Lease -- Any immediate or future transfer of ownership, including contract of sale or transfer, of an interest in a subdivision or part thereof, whether by metes and bounds, deed, contract, plat, map, or other written instrument.

Same Ownership -- Ownership by the same person, corporation, firm entity, partnership, or unincorporated association or ownership by different corporations, firms, partnerships, entities, or unincorporated associations, in which a stockholder, partner, associate, or a member of his family owns an interest in each corporation, firm, partnership, entity, or unincorporated association.

Setback -- The distance between a building wall and the nearest public way right-of-way.

Sketch Plat -- A sketch preparatory to the preliminary plat (or final subdivision plat, in the case of minor subdivisions).

Special Flood Hazard Map -- The official map designated by the Federal Insurance Administrator to identify floodplain areas having special flood hazards.

Staff Assistant to the Planning Commission -- The person(s) employed by the local governing body to assist the Planning Commission in planning and land use regulation activities.

Start of Construction -- For purposes of subdivision control any alteration of the original surface area of the land, from and after the date of adoption of these regulations.

Structure -- Anything constructed above or below ground.

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 plot in a subdivision or who (3) engages, directly or indirectly, 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 plot in a subdivision or who (4) is directly or indirectly controlled by or under direct or indirect common control with any of the foregoing.

Subdivision -- "Subdivision" means the division of a tract or parcel of land into two (2) or more lots, sites, or other divisions requiring new street or utility construction, or any division of less than five (5) acres 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 resubdividing or to the land or area subdivided. (See Sections 13-3-401 and 13-4-301, Tennessee Code.)

Subdivision Agent -- Any person who represents or acts for or on behalf of a subdivider or developer in selling, leasing, or developing or offering to sell, lease, or develop any interest, lot, parcel, unit, site, or plot in a subdivision, except in an instance where only legal counsel is provided.

Temporary Improvement -- Any improvement built and maintained by a subdivider during construction of the subdivision and prior to release of the surety for completion of required improvements.

Twenty-Five Year Flood -- A flood having an average frequency of occurrence of once in twenty-five (25) years.

Water Surface Elevation -- The heights in relation to mean-sea-level expected to be reached by floods of various magnitudes and frequencies at pertinent points in the floodplain. Also the level of natural flows or collectors or water which may be expected to be found above or below surface.

Zoning Ordinance or Resolution -- A statute, legally adopted pursuant to Title 13, Chapters 4 or 7, Tennessee Code, for the purpose of regulating by district, land development or use for a designated area.

ARTICLE VII

ADOPTION OF REGULATIONS AND AMENDMENTS

7-101 Original Enactment

In order that land shall be subdivided in accordance with the objectives and standards set forth in these regulations, these subdivision regulations are hereby adopted this ___ day of _____, and immediately shall be in full force and effect. Pursuant to Section 13-4-403, Tennessee Code, a public hearing was held on these regulations _____, at ___ p.m., _____, in Dickson, Tennessee, notice of which was given by publication in _____, on _____.

Chairman,

June 17, 2008
Date

ATTEST:

Secretary, Jason Pilkinton

June 17, 2008
Date

APPENDICES

APPENDIX A
FORMS

DICKSON MUNICIPAL PLANNING COMMISSION

Form Number 1

PRELIMINARY PLAT CHECKLIST

NAME OF SUBDIVISION _____

LOCATION _____ ZONING DISTRICT _____

OWNER _____

ENGINEER OR SURVEYOR _____

- ___ 1. _____ copies of plat.
- ___ 2. Location of property with respect to surrounding property and streets.
- ___ 3. Names of all adjoining property owners, or names of adjoining developments.
- ___ 4. Contours at not more than five (5) foot intervals.
- ___ 5. Location and dimensions of all boundary lines of the property to the nearest one hundredth (1/100) of a foot.
- ___ 6. Location and names of existing streets.
- ___ 7. Location of existing easements and utilities.
- ___ 8. Location of existing water bodies, streams, and other pertinent features, such as swamps, railroads, buildings, parks, cemeteries, drainage ditches, bridges, etc.
- ___ 9. Locations, dimensions, and areas of all proposed or existing lots.
- ___ 10. Location and dimensions of all property proposed to be set aside for park or playground use or other public or private reservation, with designation of the purpose thereof, and conditions, if any, of the dedication or reservation.
- ___ 11. Flood Map number and date.
- ___ 12. Date of Plat.
- ___ 13. Appropriate true north point.
- ___ 14. Scale of plat.
- ___ 15. Plans of proposed utility layout.

- _____ 16. **Data from which the location, bearing, and length of all lines can be determined and reproduced on the ground.**

**Dickson Municipal Planning Commission
Form Number 1
Preliminary Plat Checklist
Page 2**

- ____ 17. Names, locations and dimensions of proposed streets and easements.
- ____ 18. Indication of the use of any lot and all uses other than residential.
- ____ 19. Lots numbered.

APPROVED: _____
_____ **DATE**

CONDITIONS:

DISAPPROVED: _____
_____ **DATE**

FOLLOWING REASONS:

SIGNED: _____

_____ **SECRETARY OF PLANNING**
COMMISSION

DICKSON MUNICIPAL PLANNING COMMISSION

Form Number 2

FINAL PLAT CHECKLIST

NAME OF SUBDIVISION _____

LOCATION _____ **ZONING DISTRICT** _____

OWNER _____

ENGINEER OR SURVEYOR _____

- ___ 1. ___ copies of plat.
- ___ 2. Location of property with respect to surrounding property and streets.
- ___ 3. Names of all adjoining property owners, or names of adjoining developments.
- ___ 4. Reproducible original.
- ___ 5. Location and dimensions of all boundary lines of the property to the nearest one hundredth (1/100) of a foot.
- ___ 6. The size and location of any water and sewer mains.
- ___ 7. Location of existing easements and utilities.
- ___ 8. Location of all existing and proposed fire hydrants.
- ___ 9. Lots numbered.
- ___ 10. Names of new streets.
- ___ 11. Locations, dimensions, and areas of all proposed or existing lots with building setbacks.
- ___ 12. Location and dimensions of all property proposed to be set aside for park or playground use or other public or private reservation, with designation of the purpose thereof, and conditions, if any, of the dedication or reservation.
- ___ 13. Flood Map number and date.

**Dickson Municipal Planning Commission
Form Number 2
Final Plat Checklist
Page 2**

- ___ 14. Date.
- ___ 15. Appropriate true north point.
- ___ 16. Data from which the location, bearing, and length of all lines can be determined and reproduced on the ground.
- ___ 17. Location and description of all proposed monuments.
- ___ 18. Performance Bond:
- Water _____
- Sewer _____
- Streets _____
- Miscellaneous _____
- ___ 19. Plat Certificates:
- ___ Ownership and Dedication
- ___ Accuracy
- ___ Utility Systems Water _____ Sewer _____
- ___ Approval by County Health Department
- ___ Approval of Streets
- ___ Approval for Recording

Forms of Performance Bond -- The form of the performance bond, required by Section 2-104.1, Item 7, and Chapter 3, of these regulations, shall be as one of those (Forms Number 3 and 4) reproduced in this section and approved by the city attorney.

Copies of these forms may be obtained at the office of the chief enforcing officer.

DICKSON MUNICIPAL PLANNING COMMISSION

Form Number 3

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, That We, _____,
 as Principals, _____, State of _____,
 and the _____ INSURANCE COMPANY,
 a _____ Corporation authorized to do business in the State of
 Tennessee, having an office and place of business at
 _____, as Surety, are held and firmly bound unto the
 City of Dickson as obligee, in the sum of _____
 Dollars (\$_____) lawful money of the United States, for the payment
 whereof to the Obligee, the Principal and the Surety bind themselves, their heirs,
 executors, administrators, successors, and assigns, jointly and severally, firmly to
 these presents:

SIGNED, SEALED, AND DATED, This ____ day of _____, 20__.

WHEREAS, application was made to the Dickson Municipal Planning Commission for
 approval of a subdivision shown on plat entitled
 " _____ ", filed with the chief enforcing officer of
 the City of Dickson on _____, 20__, said final plat being approved
 by the Dickson Municipal Planning Commission upon certain conditions, one of
 which is that a performance bond amount of _____ Dollars
 (\$_____) is to be filed with the Planning Commission and accepted by the
 local governing body to guarantee certain improvements in the subdivision named
 above.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the above
 named principal shall within one (1) year from the date hereof (time may be extended
 for one (1) year only beyond this period by the local governing body upon the
 recommendation of the Planning Commission with the consent of the parties) will
 and truly make and perform the required improvements and construction of public
 improvements in said subdivision in accordance with the local government
 specifications and the resolution of _____, 19__, then this
 obligation is to be void; otherwise to remain in full force and effect.

**Dickson Municipal Planning Commission
Form Number 3
Performance Bond
Page 2**

It is hereby understood and agreed that in the event that any required improvements have not been installed as provided by said resolution, within the term of this performance bond, the governing body may thereupon declare this bond to be in default and collect the sum remaining payable thereunder, and upon receipt of the proceeds thereof, the local government shall install such improvements as covered by this bond and commensurate with the extent of building development that has taken place in the subdivision but not exceeding the amount of such proceeds.

Principal

Principal

Insurance Company

BY

Attorney-in-Fact

BOND NO. _____

Dickson Municipal Planning Commission
Form Number 3
Performance Bond
Page 3

**ACKNOWLEDGEMENT:
COPARTNERSHIP**

STATE OF TENNESSEE

(COUNTY OF _____) **SS.:**

On this _____ day of _____, 20____, before me personally appeared _____, to me known and known to me to be one of the firm of _____, described in and who executed the foregoing instrument, and he thereupon acknowledged to me that he executed such instrument as and for the act and deed of said firm.

CORPORATE

STATE OF TENNESSEE

(COUNTY OF _____) **SS.:**

On this _____ day of _____, 20____, before me personally appeared _____, to me known, who, being by me first duly sworn, did depose and say that he resides in _____; that he is the _____ of _____, corporation described in and which executed the foregoing instrument; that he knows the corporate seal of said corporation; that the corporate seal affixed to said instrument is such corporate seal; that it was so affixed by order and authority of the Board of Directors of said corporation, and that he signed his name thereto by like order and authority.

INDIVIDUAL

STATE OF TENNESSEE

(COUNTY OF _____) **SS.:**

On this _____ day of _____, 20____, before me personally appeared _____ to me known and known to me to be the individual described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same.

DICKSON MUNICIPAL PLANNING COMMISSION
Form Number 4
IRREVOCABLE DOCUMENTARY LETTER OF CREDIT

1. DATE OF ISSUE _____
—
2. CREDIT NO. OF ISSUING BANK _____
—
3. CREDIT NO. OF ADVISING BANK _____
—
4. ADVISING BANK _____
—
5. ACCOUNTEE _____
—
6. BENEFICIARY, MAIL TO _____
—
7. LATEST PERFORMANCE DATE _____
—
8. LATEST DATE FOR NEGOTIATION _____
—
9. MAXIMUM AMOUNT _____
—

10. We hereby issue this documentary letter of credit in your (the beneficiary's) favor which is available against your drafts at _____ drawn on _____ Bank, Credit No. _____" accompanied by the following document: A certificate of default signed under oath by the Chairman of the Dickson Municipal Planning Commission and the City of Dickson Mayor certifying that the accountee has not complied with the terms of the agreement between the Planning Commission and the accountee and the amount of approximate damage to the local government, which amount shall be identical to the face amount of the accompanying draft.

11. **SPECIAL CONDITIONS**

We hereby engage with the bona-fide holders of all drafts or documents presented under and in compliance with the terms of this letter of credit that such drafts or documents will be duly honored upon presentation to us.

The amount of each drawing must be endorsed on the reverse of this letter of credit by the negotiating bank.

The advising bank is requested to advise this letter of credit without engagement of their part.

Bank

Authorized Signature, Issuing Bank

Authorized Signature, Issuing Bank

Appendix B

**Roadway Design Standards
And
Construction Specifications**

I. GENERAL DESIGN STANDARDS

These general design standards are provided for the purpose of providing safe roadways within the City of Dickson. Nothing within these standards relieves the developer or design engineer of the responsibility to provide for the health, safety and welfare of the general public with respect to roadway design and operation. State and national standards developed by the Tennessee Department of Transportation, the Federal Highway Administration, the American Association of State Highway Transportation Officials and the American Society of Civil Engineers may be used to supplement this general guidance document. Deviations from these standards must be supported by appropriate reference from one of the above organizations. The City of Dickson reserves the right to make interpretation of standards.

Construction plans provided for review shall illustrate the design information used for each roadway proposed within the City of Dickson. Roadways shall be labeled to illustrate centerline tangents, intersection angles, curb and right-of-way returns, horizontal curve information, vertical curve information, bridge information, catch basin and storm sewer information, right-of-way location, streams, floodplain and floodway information, adjacent utilities and other information as may be required by the staff and Planning Commission. Plans that are not adequately labeled or do not contain required information will be returned for revision without further review or comment. All elevations depicted on construction plans shall be referenced to the North American Vertical Datum (NAVD88), or latest datum update. A site benchmark shall be shown on all construction plans.

A. DESIGN SPEEDS

1. Minimum design speeds for streets within the City of Dickson shall be 30 miles per hour unless otherwise approved by the City. Maximum design speeds shall be determined based on the surrounding land use and speed limits of adjoining streets, and should be coordinated with the City of Dickson Public Works Department.

B. INTERSECTIONS

1. Angle of intersection – roads shall be aligned to intersect as near 90 degrees as possible, but in no case shall the angle of intersection be less than 75 degrees. The angle of intersection shall continue for a distance of not less than 100 feet from the intersection as measured from the right-of-way line of the intersected street.
2. Number of streets – no more than two streets shall intersect at any point (four approaches to the intersection).
3. Offset street intersections – street intersections shall not be allowed in which the opposing approaches are not aligned and the offset is less than 150 feet as measured between the approach centerlines.
4. Minor streets intersecting collectors and arterials – new intersections along collector or arterial streets shall be no less than 800 feet apart.
5. Curb radius – curb radius shall be no less than 35 feet at minor street collector and arterial streets, or as shown on the Standard Roadway Sections of the City of Dickson.

Curb radius and right-of-way radius shall be shown on construction plans submitted for review.

6. Sight distance – the developer and design engineer shall ensure adequate sight distance at intersections and shall display sight triangles at intersections depicted on the construction plans.
7. Landings – each intersection shall provide a landing on the minor approaches consisting of a 2% grade for 60 feet as measured from the right-of-way line of the intersected street.

C. DEAD END STREETS

1. In general, streets shall be arranged to allow for a continuation between adjoining properties when necessary for movement of traffic, emergency services access, utilities, or in accordance with the major thoroughfare plan. Temporary cul-de-sacs shall be provided, and the right-of-way shall be continued to the property line.
2. When the nature of the development requires that a street be dead-end, and its continuation is not required by the Planning Commission, the end of the roadway shall be no closer than 50 feet to the property boundary unless otherwise approved by the Planning Commission. A cul-de-sac shall be provided at the end of the roadway. Cul-de-sacs and dead-end streets shall be limited to the lengths and minimum diameters shown in the table below.

Cul-de-sac Length and Diameter		
	Residential	Non-Residential
Right-of-way diameter	100 feet	160 feet
Pavement diameter	80 feet	140 feet
Max. length of cul-de-sac		
Temporary	1,000 feet	1,000 feet
Permanent	1,000 feet	1,000 feet

D. RIGHT-OF-WAY

1. Right-of-way shall be provided as noted in the table below. Additional right-of-way shall be provided in cases of embankment or cut slopes that are necessary for access to maintain the roadway, or for drainage facilities to be used for the conveyance of storm water.

Minimum Width of Right-of-Way (feet)*		
	Residential	Non-Residential
Minor Street	50	60
Collector/Arterial Street	60	60
*Greater widths may be required as noted in paragraph D.1 above.		

E. PAVEMENT WIDTHS AND CROWN

1. Pavement widths shall be in accordance with the Standard Roadway Sections of the City of Dickson.
2. Pavement crown shall be in accordance with the Standard Roadway Sections of the City of Dickson.

F. MAXIMUM ROADWAY GRADES

1. Maximum centerline grades for streets in the City of Dickson shall be in accordance with the table shown below. Deviations from these grades shall be subject to approval by the City of Dickson. Consideration of deviations should not be misconstrued to mean acceptance or as precedence, as each case will be considered on its own merits.

Maximum Centerline Grade (%)		
	Residential	Non-Residential
Minor Streets	10	6
Collector Streets	7	6

G. HORIZONTAL CURVES

1. Minimum centerline radius
 - i. Minimum centerline radius for minor streets shall be 100 feet for residential streets and 200 feet for non-residential streets.
 - ii. Minimum centerline radius for collector streets shall be 300 feet for residential streets and 300 feet for non-residential streets.
 - iii. The minimum radii noted above should only be used if appropriate for the design speed. Higher design speeds may require greater curve radii.
2. Superelevation
 - i. Horizontal curves shall be superelevated as appropriate to the design speed. Superelevation shall not exceed a rate of 0.08.

H. VERTICAL CURVES

1. Vertical curves shall be constructed such that sight and stopping distances are appropriate to the design speed with consideration of driveways and other intersections.
2. The following K-values are provided as minimum standards for vertical curves in roadways of the City of Dickson. The K-value is a coefficient by which the algebraic difference in grades may be multiplied to determine the length of vertical curve which will provide minimum sight distance. This does not relieve the developer/engineer of the responsibility to assure adequate sight and stopping distances. Ref.: A Policy on Geometric Design of Highways and Streets, American Association of State Highway Transportation Officials, Table V-2.

Design Speed (mph)	20	30	40	50
--------------------	----	----	----	----

Minimum K-values	Crest Curve	20	30	60-80	110-160
	Sag Curve	20	40	60-70	90-110

3. Vertical curves shall be arranged to minimize the number within the alignment to avoid a “roller coaster” appearance and feel.

I. DRAINAGE SYSTEM DESIGN

1. Storm Sewers

- i. For the purpose of roadway standards, storm sewers are defined as catch basins, area drains, inlets, piping, headwalls and other appurtenances used to collect and transport storm water.
- ii. In general storm sewers shall be designed to accommodate runoff from the tributary drainage area during the occurrence of the 25-year storm. Storm sewer design shall ensure that storms of greater discharge up to the 100-year storm can be accommodated without causing flooding to any dwelling or commercial/industrial structure, regardless of ownership of that structure. This may be accomplished through by-pass overflow.
- iii. Allowable gutter spread for curb and gutter shall be 6 feet. Spacing and size of inlets shall be adjusted to obtain gutter spread equal to, or less than, the allowable value.
- iv. Storm sewer materials shall be in accordance with the construction standards of the City of Dickson.

2. Ditches

- i. Ditches shall be designed to accommodate the 50-year storm, and accommodate storms of greater discharge without causing flooding to any dwelling or commercial/industrial structure, regardless of ownership of that structure.

3. Cross drains

- i. Cross drains are defined as circular, elliptical or arch culverts designed to convey storm water from one side of a roadway to the other side in areas other than a stream crossing or storm water conveyance crossing with a drainage area greater than 100 acres.
- ii. Cross drains shall be constructed of materials as required in the roadway construction standards of the City of Dickson.
- iii. Cross drains shall be designed to convey the 50-year storm, and accommodate storms of greater discharge without causing flooding to any dwelling or commercial/industrial structure, regardless of ownership of that structure.

J. BRIDGES

1. For the purpose of these standards, bridges are defined as infrastructure intended to convey traffic from one side of a waterway to the other when crossing a stream or storm water conveyance. Included in this definition are round culverts, box culverts, arch pipes, elliptical pipes, half-arch pipes, span structures and other such types of conveyances intended to allow vehicular or pedestrian traffic to cross the channel.
2. Bridges shall be designed and stamped by an engineer licensed in the state of Tennessee. The use of standard materials or standard designs is acceptable, but must be clearly indicated on the construction plans and the appropriate level of construction detail shown to allow staff review of the proposal. The level of detail should increase with the complexity of the structure (i.e., a reinforced concrete box culvert requires more detail than a circular culvert).
3. Bridges shall be designed to accommodate HL93 loading as a minimum.
4. Bridges shall be hydraulically designed to prevent the increase in base flood elevation resulting from the installation of the bridge.
5. Top of road elevation over a bridge shall be no more than 1 foot below the base flood elevation.
6. Minimum information shown on the plans shall include the beginning of bridge point, end of bridge point, skew, width, materials, size, section shape, reinforcing, guardrail and/or bridge rail, stream bank armoring, end treatments, and other information as may be required to evaluate the proposal. The bridge shall be shown in plan and profile views.
7. All bridges shall receive guardrail and/or bridge rail as appropriate to the type of bridge and geometric design.
8. Hydraulic information shall be shown for each bridge structure. Such information shall include, as a minimum, the design storm, design discharge, natural conditions headwater elevation (without bridge), headwater elevation resulting from the bridge, natural conditions water velocity, velocity resulting from the bridge, and roadway overtopping information.
9. Bridges shall be designed to protect against scour.
10. Design engineers shall provide a “no-rise” certification in accordance with FEMA regulations and procedures for all bridges crossing the regulatory floodway, and for all bridges crossing streams or storm water conveyances with drainage basins of 100 acres or more.

K. GUARDRAIL

1. The developer shall plan and install guardrail in areas of hazard along roadways for the protection of the public. Such areas include roadway embankments with steep foreslopes, bridges, box culverts, overcrossing structures, and roadway embankments over thirty (30) feet in height from the riding surface to the toe of embankment slope. Guardrail shall be placed at locations/conditions normally indicated by TDOT or nationally accepted standards. The City of Dickson reserves the right to specify additional locations in the interest of public safety.

L. PERMITS

1. The developer shall be responsible for obtaining all state and federal permits associated with the construction of the planned improvements. Such permits shall include, but may not be limited to, Notices of Coverage for land disturbances, Aquatic Resources Alteration Permits for stream crossings, TVA 26A permits, USACE 404 permits and TDOT roadway/driveway connection permits.
2. The developer shall obtain approval of the City of Dickson for roadway and driveway connections to State highways prior to making application to the Tennessee Department of Transportation.
3. State and Federal permit approval shall not be misconstrued as a requirement upon the City of Dickson to issue approval of any proposal.

M. AS-BUILT DRAWINGS

1. Upon completion of construction of the improvements approved by the City of Dickson, the developer shall provide a full-size set of as-built drawings certified by the design engineer whose stamp appears on the construction drawings. The drawings shall bear a statement from the design engineer stating that all construction has been in general conformance with the elevations and grades depicted on the construction plans. Any deviations from the City-approved construction plans shall be indicated on the plans, and fully documented as to scope, nature and reason for the deviation. Any changes that conflict with City standards must be approved by the City prior to construction of the feature. The as-built drawings shall illustrate such features as roadway elevations along the centerline at 100-foot intervals with sufficient information to describe intersections and landings at intersections. The as-built drawings shall also contain the top of grate and invert elevations at catch basins, invert elevations of culverts, ditches, and endwalls, sizes of catch basins, and sizes of pipe culverts and storm sewer pipes. For bridges, whether span-, box culvert-, or circular culvert-type, the as-built plans shall illustrate the top of road elevation, station and elevation at the beginning and ending points of the bridge, invert elevation, low chord elevation, wingwall alignment, extent and elevation, and the extent, type and size of scour protection. The site benchmark shall be shown on the as-built plans.

II. MATERIALS SPECIFICATION & CONSTRUCTION PROCEDURES

The Tennessee Department of Transportation Standard Specifications for Road and Bridge Construction (current edition), American Association of State Highway Transportation Officials A Policy on Geometric Design of Highways and Streets (current edition), the Manual on Uniform Traffic Control Devices (current edition), and Tennessee Department of Transportation Standard Roadway Drawings and Standard Structure Drawings are hereby incorporated by reference.

A. PRELIMINARY WORK

1. Location and Protection of Underground Utilities

- a. Prior to beginning excavation or grading, the developer shall determine, insofar as possible, is required to call Tennessee One Call at 1-800-351-1111 at least 72 hours prior to beginning construction so the actual locations of all underground utilities in the vicinity of his operations and shall clearly mark them so that they can be avoided by equipment operators. Where such utility lines or services appear to lie in the path of construction; they shall be uncovered in advance to determine their exact location and depth and to avoid damage due to excavation or grading operations. Existing facilities shall be protected during construction or removed and replaced in equal condition as necessary.
- b. Should any existing utility lines or service be damaged during or as a result of a subdivider's operations, the developer shall take such emergency measures as may be necessary to minimize damage and shall immediately notify the utility agency involved. The developer shall then repair the damage to satisfaction of the utility agency or shall pay the utility agency for making the repairs. In all cases the damaged structure shall be in as good or better condition as before the damage occurred.

2. Surveying and Staking

- a. The developer shall be responsible for his own surveys and establish his own alignment and grades as shown on the approved road plans.

3. Removal of Obstructions

- a. The developer shall be responsible for the removal, safeguarding, and replacement of fences, walls, structures, culverts, street signs, billboards, shrubs, mailboxes, or other obstructions which must be moved to facilitate construction. Such obstructions shall be restored to at least their original condition in a location that will not encroach upon the clear zone, impede sight distances, or adversely affect the safe operation of the roadway.

4. Clearing and Grubbing

- a. The developer shall be responsible for cutting, removing, and disposing of all trees, brush, stumps, roots, and weeds within the construction area. Disposal shall be by means of chippers, landfills, or other approved methods not in conflict with state or local ordinances. Care shall be taken to avoid unnecessary cutting or damage to trees not in the construction area. The developer shall be responsible for loss or damage to trees outside the permanent easement or right-of-way. Under no circumstances shall organic materials be buried within the limits of roadway embankments or beneath paved surfaces in cut sections.

5. Traffic Control and Safety

- a. The developer shall provide and maintain access to and from all properties along the line of his work. All traffic control measures shall comply with the current edition of the

Manual on Uniform Traffic Control Devices. The developer shall provide, erect, and maintain adequate barricades, warning signs, and lights at all excavations, closures, detours, points of danger, and uncompleted pavement. Where single-line bypasses are provided, the developer shall furnish signal men to control traffic operations and minimize delays. All road closures or disruptions to traffic shall be coordinated with the City Public Works Department, E911 Dispatch and the Dickson County Schools Transportation Director at least one week before the work begins.

6. Erosion and Sediment Control

- a. All disturbances for clearing and grubbing for roadway construction shall meet or exceed the requirements set forth by the required storm water ordinances within the sub-division regulations and state and federal regulations. These measures shall be in place before any roadway construction is begun and shall remain in place throughout the life of the project. Any and all aspects of erosion and sediment control shall at all times be met. All disturbed areas shall be permanently stabilized prior to project acceptance.

7. Roadway Construction Plans

- a. Roadway construction plans shall meet and/or exceed the requirements set forth for all roadway work, and all such plans shall be prepared by an engineer licensed to practice in the State of Tennessee. These plans shall be reviewed and approved by Codes / Public Works prior to the beginning of construction.

B. ROADWAY CONSTRUCTION

1. Stripping, Stockpiling, and Placing Topsoil

- a. All topsoil shall be stripped within the street right-of-way and from any other area designated. Topsoil shall be stored in stockpiles. All organic matter within the right-of-way shall be stripped and disposed of as indicated on the approved road plans. A four (4) inch minimum depth of topsoil shall be placed where seeding is required or where required by the approved road plans.
- b. After the stockpiled topsoil has been placed as specified above, the area stockpiled shall be neatly graded and dressed, with erosion control measures implemented as required.

2. Excavation

- a. Excavation shall conform to limits indicated on the approved road plans. Excavation materials shall be removed in such a manner that the slopes can be neatly trimmed. Excavation shall be made into the hard pan grade, except where rock or stone masonry is encountered or undercutting of unstable materials is required. Materials removed below grade shall be replaced with approved materials thoroughly compacted. Where borrow materials are required to complete embankments or fills, the developer shall be responsible for providing them.

- b. Rock excavation shall be removed to a minimum depth of twelve (12) inches below the sub-grade and back filled with approved materials which shall be thoroughly compacted by sheep-foot roller and / or eight (8) ton vibratory roller. A roll compaction test will be required on completion, to be overseen by the Public Works Director or his designee.
- c. Where a spring or seepage water is encountered that is not provided for on drainage plans, it shall be reported to the engineering firm responsible for the plans and the City of Dickson Planning, Zoning, and Codes and Public Works Departments. Construction shall cease in the vicinity of the spring or seep until the construction plans have been revised to accommodate the feature, and said plans have received approval from the City of Dickson.

3. Fills and Embankments

- a. Embankment and fill materials shall be free from frost, stumps, trees, roots, sod, or muck. Only materials from excavation or borrow pits, or other approved materials shall be used. Materials shall not be placed on frozen ground.
- b. Where excavated materials are used in fill construction and the materials consist of earth and various grades of rock, the fills shall be carefully constructed with the larger or hard rock on the bottom followed by the smaller or soft rock and finally the earth fill to provide a well-compacted and void-free embankment.
- c. All depressions or holes below the natural ground surface, whether caused by grubbing, rock removal, undercutting, or otherwise, shall be filled with suitable materials and compacted to ground surface before fill construction is started, and inspected for correct compaction.
- d. Backfilling around a structure shall have been completed and thoroughly compacted to ground surface before any embankment materials are placed thereon. Culverts, box culverts, and like structures shall be filled to subgrade with crushed stone in areas of shallow fill and to a height of at least three (3) feet over the structure in deeper fills.
- e. Embankments shall be so constructed that adequate surface drainage will be provided at all times.
- f. Fill area shall be compacted by a sheep's foot roller, to a density of not less than ninety-five (95) percent optimum density and within three (3) percent of optimum moisture content per ASTM D 698 and each lift of fill materials shall be rolled until the roller "walk out". Compaction tests shall be conducted by an independent soil testing consultant for each lift. As an alternative to soil compaction tests by the consultant, the Public Works Director may authorize the testing of each lift by proof roll testing that must be observed by a representative of the City of Dickson or an independent consultant. The soil testing consultant shall not be the design engineer or an employee of the design engineer or subsidiary, but shall be an independent third party.
- g. The finished grade shall be test rolled with a truck and inspected by the Public Works Director or his designee. Any areas found to be soft or "pumping" shall be cut out and replaced with suitable materials in lifts, each lift shall be compacted until the excavation has been brought back to finish grade.
- h. Where excavated materials consist mainly of rock too large to be placed in the normal eight (8) inch thickness without crushing further breaking down pieces, such materials shall be placed in the fill in layers not exceeding three (3) feet in depth. No rock larger than eighteen (18) inches in dimension shall be placed in fill. Care shall be taken to fill all

voids between large rocks and to assure that fill materials are compacted such that settling is minimized. Fill materials shall be placed in eight (8) inch lifts requiring a 24" cap layer of materials that can be compacted in the maximum lift thickness. Compaction of the top six (6) inches of cuts or fills shall be accomplished with pneumatic-tire rollers, and / or other necessary or required compaction equipment.

- i. Backfill around structures shall be of crushed stone or earth meeting the approval of the Public Works Director or his designee and the fill shall be placed and compacted in eight (8) inch lifts and brought up evenly on all sides of the structure.

4. Undercutting

- a. This work shall consist of the removal and disposal of unsatisfactory materials below grade in cut sections or areas upon which embankments are to be placed. It shall also include undercutting for pipes and box culverts where required. Known areas to be undercut shall be designated on the approved road plans, and notes shall indicate the depth of expected undercut and methods/source of backfill. On-site undercuts shall be approved by the project engineer, with verification of tests by the Public Works Department. The backfill material shall be placed in eight (8) inch lifts and compacted as specified for fill construction.
- b. Disposal of unsatisfactory materials shall be approved on an as needed basis outside of limits of fill or pavement and shoulders.

5. Sub-Grade Construction and Preparation

- a. The sub-grade shall be prepared in reasonably close conformity with the lines and grades as shown on the approved road plans.
- b. Prior to placing embankment fill or other materials, the topsoil shall be stripped and the soil proof rolled. Any areas found to be "soft" shall be undercut, replaced with compacted fill and proof rolled. If a soil testing consultant is not used for verification of the test, a representative of the City of Dickson must be on site to observe and approve the test.
- c. Grading of sub-grade shall be performed in such manner as to provide ready drainage of water. Ditches and drains shall be maintained to provide proper drainage during construction.
- d. Hauling over finished sub-grade shall be limited to that which is essential for construction purposes and all ruts or rough places that develop in a completed sub-grade shall be smoothed (clipped) and re-compacted. Soft areas shall be removed and replaced with crushed stone, followed by a proof roll compaction test. Pumping areas will be removed, replaced, and re-compacted as required during inspection by the Public Works Director or his designee. Sub-grade density tests shall be conducted by a soil testing consultant licensed by the State of Tennessee, and shall be furnished at the expense of the developer and submitted directly to the Public Works Department, from the testing consultant. The soil testing consultant shall not be the design engineer or an employee of the design engineer, but must be an independent third party. A minimum of one sub-grade density test for every five-hundred (500) feet of roadway will be required per embankment lift or length of cut. As an alternative to these tests, the Public Works Director may approve the

use of proof roll testing of each lift, which must be observed by a representative of the City of Dickson or an independent soil testing consultant.

- e. The final sub-grade shall be inspected by a roll compaction test by the Public Works Director or his designee prior to placing aggregate base material. The developer shall provide a fully loaded test vehicle (standard dump truck) at his own expense.

6. Shoulders and Slopes

- a. All shoulders and slopes shall be trimmed and shaped to conform with the cross sections shown on the plans and as specified in the Standard Roadway Sections of the City of Dickson. Rock cuts shall be sealed of loose fragments, projecting points, etc., so as to leave a clean and neat appearance. Shoulders shall be completed where required as shown on the approved road plans and shall be double bituminous surface treated, with care being taken to protect the surface and edges of pavement. Shoulder materials shall be placed in uniform layers and compacted by overlapped rolling of both base course and pavement. The finished shoulder shall be firm against the pavement.

7. Guardrail

- a. The developer shall plan and install guardrail in areas of hazard along roadways for the protection of the public. Such areas include roadway embankments with steep foreslopes, bridges, box culverts, overcrossing structures, and roadway embankments over thirty (30) feet in height from the riding surface to the toe of embankment slope. Steep foreslopes are defined as slopes greater than 3:1. Guardrail shall be placed at locations/conditions normally indicated by TDOT or nationally accepted standards. The City of Dickson reserves the right to specify additional locations in the interest of public safety.

C. BASE AND PAVING

1. Base Stone

- a. The base course of stone shall be placed and compacted in layers or lifts upon the prepared sub-grade to a finish thickness as described and shown on the plans. No single layer or lift shall exceed four (4) inches in depth.
- b. The base course shall be a pug mill mix of mineral aggregate, conforming to the required depth as stipulated in Appendix B. The aggregate base shall not be spread on a sub-grade that is frozen or that contains frost. The base stone shall be placed and spread in uniform layers or lifts without segregation of size; each layer shall be compacted to a thickness no greater than four (4) inches. The stone shall be mixed with graders or other equipment until a uniform mixture is obtained. Each layer shall be compacted by rolling with alternate blading until smooth, even, and uniformly compacted finish is obtained.
- c. The base stone shall be graded and rolled while it is still moist from the pug mill mix. If the mix is too dry, water shall be added with a distributor tank truck while the stone is being graded and rolled. Compaction shall be uniform for the entire width of the roadway until density of ninety-eight (98) percent of the solid volume has been achieved.

Placement and compaction of each layer shall be approved by the Public Works Director or his designee before materials for the next successive layer are placed.

- d. Base stone density tests shall be conducted by a testing laboratory licensed by the State of Tennessee, and shall be furnished at the expense of the developer and submitted directly to the Public Works Department, from the testing laboratory. A minimum of one base stone density test for every five-hundred (500) feet of roadway will be required. Proof roll testing, as discussed above, may be authorized by the Public Works Director.
- e. No pavement shall be placed until the stone base has been proof roll tested by developer and the Public Works Director or his designee. The developer shall provide a fully loaded test vehicle at no expense to the City.

2. Prime Coat

- a. After the base stone has been prepared as outlined above, a bituminous prime coat shall be applied uniformly over the surface of the base by the use of an approved bituminous distributor. The prime coat shall be applied at the rate of the three-tenths (3/10) gallon per square yard, using RC-250, or refined tar Grade RT-2, RT-3, or emulsified asphalt, Grade AE-P. If, after the bituminous materials have been applied, they fail to penetrate before the time that the roadway is being used by traffic, dry cover materials shall be spread at a rate (between eight (8) and twelve (12) pounds per yard) to prevent damaged to the primed surface. An excess of cover materials shall be avoided. No succeeding state of construction shall be placed upon the prime coat until it has properly cured. Aggregate for cover materials shall be Size No. 78 or 8.
- b. In addition to these general requirements, unless otherwise stipulated, all materials and methods of installation shall conform to the technical specifications.

3. Binder Course

- a. In residential streets, the binder course shall be installed prior to the sale of any lot or improvements. A binder course of asphalt shall be applied upon completion of the prime coat. The binder mix shall be asphalt concrete "B" modified in the thickness shown on the detail sheet for that class street.

4. Tack Coat

- a. A tack coat shall be applied to old or existing pavement surface or to a previously prepared base or surface to provide bond for an overlaid course. The tack coat shall be applied at the rate of one-tenth (1/10) gallon per square yard using materials and methods of installation.

5. Wearing Surface

- a. Prior to the application of the wearing surface the developer shall contact the Department of Public Works and apply the tack coat. In residential applications, this shall be done when the developed area is within 75% of completion or two years from the start of construction. The developer will at that time construct the wearing surface as per the

Standard Roadway Sections of the City of Dickson. The wearing surface shall be the thickness shown on the detail sheet for that class street. All materials and methods of installation shall conform for asphaltic concrete surface. The wearing surface shall be constructed of CW, D, or E mix and shall utilize asphaltic cement Grade RT- 4 or 5, or TRCB- 5, or 6, in accordance with the Standard Roadway Sections of the City of Dickson. The completion of the wearing surface shall be contingent on the 75% status of the subdivision or by the authority for completion set forth by the City Council of the City of Dickson.

6. Shoulders

- a. Shoulder construction shall be completed by blading, moistening as necessary, and by thoroughly compacting. The shoulders shall be the width and thickness shown on the typical section as required herein and covered with the typical section as required herein and covered with a double bituminous surface treatment. The surface shall be prepared as directed in advance of the surface construction. Upon completion of the prime coat, a double bituminous surface treatment shall be applied with the first course being at a rate of between 0.38 and 0.42 gallons per square yard. If the width of application is wider than the distributor, each width of spread shall not be less than one-half (1/2) the surface to be treated. Areas inaccessible to the distributor shall be treated either with hand sprays or pouring pots. Immediately after each application of bituminous materials has been made, it shall be covered uniformly with Size No. 6, mineral aggregate. The aggregate shall be spread at a rate of between thirty (30) and forty (40) pounds per square yard. The first application shall be allowed to cure for a length of time to be determined by the enforcing officer before the second application is begun.
- b. The second application of bituminous materials shall be applied in the same manner as the first application, at a uniform rate between 0.30 and 0.35 gallons per square yard. Mineral aggregate, Size No. 7, shall then be spread in the same manner as for the first spread at a rate between twenty (20) and twenty-five (25) pounds per square yard.
- c. Immediately after each spread of cover aggregate, uniform coverage shall be achieved by hand brooming. Additional aggregate shall be placed by hand on thin bare areas.
- d. Immediately after spreading and brooming the cover aggregate, the entire surface shall be rolled, beginning at the edges and progressing to the edge of the pavement. Rolling shall begin within thirty (30) minutes after the aggregate has been spread. The same rolling and curing procedures required in making the first application shall be repeated in making the second application.
- e. In addition to these general requirements, unless otherwise stipulated, all materials and methods of installation shall conform to the technical specifications set forth per the text and in accordance with Appendix B of the sub-division regulations for the Standard Roadway Sections of the City of Dickson.

7. Testing

- a. The developer will provide proper testing and inspection of asphalt material at the plant and at the project site at his expense. Certification that the asphalt meets regulations will be supplied to the Public Works Department at the time of placement. Final inspection

shall be requested two weeks in advance and this inspection performed by the Public Works Director or his designee.

D. DRAINAGE SYSTEM

1. Ditching and Channelization

- a. This work shall consist of the construction of ditches adjacent to roadway shoulders and feeding to and from culverts under or adjacent to the roadway. All drainage ditches shall be graded in their entirety during the time the roadways are being graded; such grading shall be completed prior to final inspection of the roadways. Drainage system design shall be performed by a licensed engineer and submitted on behalf of the developer to the City of Dickson. Drainage systems shall be designed to convey the 25-year storm in storm sewers, the 50-year storm in open ditches, and to accommodate the 100-year storm in all portions without damage to structures or hazard to the public. Streams or waterways shall have culverts designed to meet FEMA regulations with respect to effect on water surface elevations.

2. Stabilization of Channelization

- a. All open ditches shall be stabilized in accordance with the following requirements:

Size of Nearest Culvert (Upstream)	Seeding Required	Sod Required	To be Concrete Lined
15"	Grades 1.00% - 3.00%	Grades 3.00% - 12.00%	Grades Exceeding 12.00%
18" thru 24"	Grades 1.00% - 1.50%	Grades 1.50% - 7.00%	Grades Exceeding 7.00%
30" thru 36"	Grades 1.00%-1.50%	Grades 1.50%- 4.00%	Grades Exceeding 4.00%
42" thru 72"	Grades Not Allowed	Grades 2.50% or less	Grades Exceeding 2.50%

- b. Alternate methods of stabilization, such as turf reinforcement grids, will be considered upon submission of detailed design calculations for the intended application. Consideration shall not be construed as acceptance. City staff shall make such determinations in the best interest of the City of Dickson and the general public.

3. Concrete Ditch Paving

- a. Concrete ditch paving shall consist of the construction of paved ditches on a prepared sub-grade. The sub-grade shall be shaped and compacted to a firm even surface.
- b. All soft materials shall be removed and replaced with acceptable materials and compacted.
- c. Concrete ditch pavement shall be four (4) inches in thickness throughout and shall be back filled immediately after the concrete has set and the forms have been removed. The back filled materials shall be thoroughly compacted. Expansion joints shall be located every four (4) feet or as per TDOT standard drawings.

4. Culvert and Storm Drains

a. General

- i. This work shall consist of the construction of pipe culverts and storm sewers as shown on the plans.
- ii. Driveway culverts and cross drains shall be sized by the engineer in subdivisions and developments involving more than one driveway or for a driveway culvert in a commercial development, with calculations to be submitted to the Planning, Zoning, and Codes Department. All cross drains shall be Class III RCP (minimum) unless a waiver is granted by the Planning Commission or unless otherwise herein specified. Unless hydraulic calculations dictate a larger size, cross drains shall be a minimum of eighteen (18) inches. Corrugated metal pipe may be used for residential driveway culverts.
- iii. Reinforced concrete pipes shall conform to minimum standards for Class III, Reinforced Pipes, A.S.T.M. C76. Corrugated metal pipes shall conform to size stipulated below, and to gage as follows:

Size	<u>Rounded Corrugated Metal Pipes</u>	Gage
15" — 24"		16
30"		14
36" — 48"		12
54" — 72"		10
78" — 84"		8

Size	<u>Arch Corrugated Metal Pipes</u>	Gage
18" X 11" — 22" X 13"		16

25" X 16"— 36" X 22"	14
43" X 27"— 65" X 40"	12
72" X 44" or Larger	10

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- iv. For pipes smaller than forty-eight (48) inches in diameter, a minimum cover of one (1) foot, exclusive of base and paving, is required from top of pipes to finished sub-grade. A minimum cover of two (2) feet is required for pipes forty-eight (48) inches in diameter and larger. All pipes shall be built on straight line and grade shall be laid with the spigot end pointing in the direction of the flow, with the ends fitted and matched to provide tight joints and smooth uniform invert.
 - v. Pipes shall be bedded on a six (6) inch thickness of Class B materials and back filled to a depth of fifty (50) percent of the diameter of the pipes with crushed stone. Recesses shall be dug in the bedding materials to accommodate the bell. Class B bedding shall be Size No. 7. Culverts and storm drains in existing roadways shall be back filled to sub-grade with crushed stone.

b. HDPE Pipe

- i. Corrugated plastic pipe used in the City of Dickson public storm sewer system shall meet the applications and standards of manufacture and construction herein specified as a minimum.
- ii. Applications
 - a. HDPE pipe may be used under minor streets in residential subdivisions where the ADT is not expected to exceed 1000. HDPE pipe shall not be used under collectors or arterials, or under streets connecting two collectors or arterials, which might be used as a connection between the two higher classified streets. The City of Dickson shall have discretion over the classification of streets and potential for use as a connection between higher classified streets.
 - b. Additionally, HDPE pipe may be used as side drain piping (pipes under private driveways, business and field entrances). All pipe used as side drains adjacent to collector or arterial streets shall have headwalls appropriate to the type of street adjacent to the driveway or entrance (typically TDOT safety headwalls).
 - c. HDPE pipe shall be installed in trenches not exceeding 10-feet of cover over the crown of pipe.
 - d. Maximum allowable diameter of HDPE pipe is 48-inches.
 - e. HDPE pipe may be used to convey storm water from one side of the right-of-way to the other under streets where its use is permitted and the drainage area is 40 acres or less, but shall not be used as cross drain piping to convey streams from the one side of the right-of-way to the other. Streams shall generally be defined as those appearing as a blue line on a USGS quadrangle map, or as designated by the Tennessee Department of Environment and Conservation, the U.S. Army Corps of Engineers, the Tennessee Valley Authority, or other regulatory agency.
 - f. Non-concrete catch basins or headwalls shall not be used in the public storm sewer system.

iii. Materials

- a. Corrugated plastic pipe shall be made of high density polyethylene (HDPE) and fully comply with AASHTO standard M294 Type S, current edition. It shall have a smooth interior waterway with exterior corrugations. Recycled resin shall not be allowed. All acceptable pipe manufacturers and diameters are listed by the National Transportation Product Evaluation Program (NTPEP). Furthermore, all HDPE pipe delivered and used shall bear the third party certification seal of approval by the Plastic Pipe Institute (PPI).
- b. All Rubber gaskets for HDPE pipe shall conform to ASTM F477, "Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe." HDPE pipe joined by bell and spigot shall be joined using gaskets that conform to ASTM F477. Joints shall meet the specification for watertightness.
- c. All catch basins and pipe endwalls installed in public rights-of-way or drainage easements, or connected to the public storm sewer system shall be concrete.

iv. Construction

- a. HDPE pipe shall be assembled in the field in accordance with the manufacturer's specifications. The pipe shall be installed beginning at the outlet and progressing toward the inlet end.
- b. The design engineer shall verify the stiffness of soils in the vertical walls of the trench. If the soils are not stable and firm HDPE pipe shall not be installed or used. Certification of this verification shall be provided in writing to the City of Dickson.
- c. HDPE pipe shall not be installed if water is present in the trench or in a location where a high water table is encountered. Additionally, HDPE pipe shall not be used if the inlet or outlet of the pipe will be submerged due to ponding.
- d. HDPE pipe shall be aligned such that the pipe sections form a continuous vertical grade line without irregularities in the flow line. Sections that cause a change in vertical grade line or horizontal alignment shall be removed and re-graded.
- e. HDPE pipe shall be installed on a minimum of 6-inches of class B bedding. The bedding shall be compacted to a minimum of 90% standard Proctor density unless otherwise specified.
- f. Structural backfill shall be placed in layers not exceeding 6-inches of loose thickness. Structural backfill shall be placed on both sides of the pipe at the same time and shall be brought to no less than 1-foot above pipe crown. In areas crossing under traffic lanes in pavement, structural backfill shall be extended to the subgrade elevation.
- g. Structural backfill shall be worked into the haunch and compacted by hand. Minimum compaction shall be 90% standard Proctor density per AASHTO T99 and shall be accomplished by vibratory plate device. Hydrohammers shall not be used over HDPE pipe.
- h. HDPE pipe shall have a minimum of 2-feet cover over the crown of pipe to allow traffic to pass over the pipe. The pipe shall have a minimum cover in all applications of 1-foot exclusive of base stone and paving, and shall have a minimum cover of 2-feet in areas outside of paving.

- i. HDPE pipe deflection shall be measured after installation. Pipe with deflections exceeding 5% of the inside pipe diameter shall be removed and replaced. Pipe that has been damaged shall not be installed and shall be removed from the project site.
 - j. All changes in pipe direction or pipe slope shall be accomplished at a catch basin or manhole. Provision shall be made to allow access for maintenance. Fittings such as elbows and tees shall not be allowed.
- v. Inspection and Acceptance
- a. All pipes shall be inspected during installation prior to covering. The City of Dickson shall have the option of attending inspections. The City of Dickson Public Works Department shall be notified at least one week prior to installation of HDPE piping to allow coordination of inspections. Documentation of the inspection and certification of correct installation shall be provided to the City of Dickson for all installations within public rights-of-way or connecting to public storm sewer systems. The Owner shall provide certification by either the design engineer or manufacturer's representative that maximum pipe deflections do not exceed 5% of the inside diameter of the pipe. Pipe with deflections exceeding this requirement shall be removed and replaced.

5. Headwalls

- a. Concrete headwalls shall be constructed at both ends of cross drains as shown and detailed on the standard drawings included in the City of Dickson Subdivision Regulations. Headwalls in State Right-of-Way shall conform to Tennessee Department of Transportation Standards.

6. Catch Basins

- a. The work shall consist of constructing catch basins complete with inlets, outlets, and inverts. Tops and inlets shall be constructed to conform to roadway grade so that drainage can easily be caught and no ponding created. Catch basins shall be constructed as shown and detailed on the standard drawing included herein. Calculations indicating catch basin hydrology, gutter spread and pipe hydraulics shall be submitted to the Planning, Zoning, & Codes Department. Gutter spread shall be limited to six (6) feet on local residential streets and six (6) feet on collector, arterial, and industrial streets. Catch basins and grates shall be installed at the appropriate roadway width and grade.
- b. Catch basins and grates that are incorrectly installed such that pavement widths or grades do not meet minimum standards shall be removed and re-set correctly. Holes left by the relocation shall be backfilled with crushed stone in accordance with Section IV.B. Roadway Construction.

7. Box Culverts and Bridges

- a. Design of box culverts and bridges shall be included in the approved drainage plans before construction is permitted.

8. Roadside Ditches

- a. Roadside ditches, in conventional sections, shall be built to a grade that will permit good drainage, and in no case shall the slope of the ditch be less than one (1) percent (a fall of 1.00 foot in 100 feet). All drainage ditches shall be stabilized, as indicated in these specifications.

9. Changes in Water Channels

- a. Where the developer rechannelizes a waterway or drainage path through a sub-division, he shall be responsible for replacing cross drains under streets as directed by the Public Works Director or his designee. The work shall be done at the expense of the developer. State of Tennessee and Federal permits shall be obtained prior to construction and copies of said permits shall be provided to the Planning, Zoning and Codes and Public Works Departments. Crossings shall be designed to City standards by a licensed engineer at the developer's expense.

10. Curb and Gutter (Formed)

- a. Concrete curbs and gutters shall conform to the standard drawings as detailed herein. Concrete for curbs and gutters shall be Class A, 3,000 psi.
- b. Curbs and gutters shall be constructed to the lines and grades shown on the approved plans. The final sub-grade for curbs and gutters shall be carefully graded and compacted to an even density and shall be smooth and true to grade. Curbs and gutters shall be constructed with materials and methods which conform to the technical specifications.
- c. Concrete driveway ramps shall be required on all curb and gutter streets. The ramps shall extend a minimum of five (5) feet behind the curb. Materials for the remaining portion of the driveway shall be determined by the developer. Driveway ramp construction shall conform to detailed standard drawing included herein as a minimum.
- d. Any driveway ramp to be placed after initial laying of curb shall require a curb cut permit and shall be installed in accordance with the standard drawings included herein as a minimum.

E. FINAL DRESSING, SEEDING, AND SODDING

1. Final Dressing

- a. This work shall consist of dressing all slopes and areas to within reasonable close conformity to the lines and grades indicated on the plans, or as directed by the enforcing officer. Final dressing shall be performed by hand or machine to produce a uniform finish to all parts of the roadway including embankments, ditches, etc. Rock cuts shall be cleaned of all loose fragments; side slopes shall be laid back to a three to one (3:1) slope and seeded as described in these specifications.

- b. The entire right-of-way shall be cleaned of all weeds and brush, and all structures, both old and new, shall be cleared of all brush, rubbish, sediment, or other objectionable materials. Catch basins shall be cleaned of sediment and grates shall be cleaned of debris.

2. Seeding

- a. In all areas damaged or disturbed by the construction operation where established ground cover was present before beginning of construction, the developer shall be responsible for restoring the ground cover after completion of construction, unless noted otherwise on the drawings and approved by the City. All areas seeded shall be graded smooth prior to seeding and the developer shall be responsible for maintenance of the smooth finished grade until grass is established.
- b. After designated areas have been carefully hand graded, soil shall be prepared for fertilizing and seeding. Fertilizer shall be a standard commercial fertilizer Grade 15-15-15 or equivalent, and shall be applied at a rate not less than ten (10) pounds per one thousand (1,000) square feet. The fertilizer shall be lightly harrowed, raked, or otherwise incorporated into the soil for a depth of approximately one half (1/2) inch. The developer shall be responsible for any regrading or reseeded required to produce an acceptable grass cover. Rutting and washing shall be restored by reseeding and strawing; in areas of extreme erosion, sodding may be required.
- c. The seed shall be as follows:

Seed	GROUP "A" Quantity % by Weight	Seeding Dates
Kentucky 31 Fescue	80%	February 1 - July 1
English Rye	5%	
Korean Lespedeza	15%	
GROUP "B"		
Kentucky 31 Fescue	55%	June 1 - August 15
English Rye	20%	
Korean Lespedeza	15%	
German Millet	10%	
GROUP "C"		
Kentucky 31 Fescue	70%	August 1 - December 1
English Rye	20%	
White Clover	10%	

The seed shall be sown uniformly at the rate of one and one-half (1½) pounds per one thousand (1,000) square feet. Following the application of seed, all seeded areas shall be covered by a layer of straw mulch.

3. Sodding

- a. Sodding shall consist of furnishing and placing sod at all locations shown on the approved plans and inspected by the Codes and Public Works Departments. Work shall include the furnishing and placing of new sod, consisting of live, dense, well-rooted growth of permanent grasses free from Johnson grass and other obnoxious grasses or weeds, well suited for the soil on which it is placed. All sod shall be cleanly cut in strips having a uniform thickness of not less than two and one-half (2½) inches. Sod shall be set when the soil is moist and favorable to growth. No setting shall be done between October 1 and April 1. The area to be sodded shall be brought to the lines and grades shown on the approved plans.
- b. Sod shall be placed within 7 days of removal from the point of origin; it shall be kept in a moist condition during the interim. Sod shall be carefully placed by hand on the prepared ground surface with the edges in close contact and, as far as possible, in a position to break joints. Each strip of sod laid shall be fitted into place and tamped. Immediately after placing, the sod shall be thoroughly wetted and rolled with an approved roller. On slopes of two to one (2:1) or steeper, pinning or pegging shall be required to hold the sod in place. Sod remaining on pallets longer than 7 days from the point of origin shall be removed from the site.
- c. The surface of the ground to be sodded shall be loosened to a depth of not less than one (1) inch with a rake or other device. If necessary, it shall be sprinkled until saturated for a minimum depth of one (1) inch and kept moist until the sod is placed. Immediately before placing the sod, fertilizer and lime shall be applied uniformly to the prepared surface of the ground. Fertilizer shall be applied at the rate of eight (8) pounds of Grade 15-15-15, or equivalent, per one thousand (1,000) square feet.
- d. The sod shall be watered for a period of two (2) weeks. The developer shall not permit any equipment or materials to be placed on any planted area and shall erect suitable barricades and guards to prevent equipment, labor, or the public from traveling on or over any area planted with sod.

F. SIDEWALKS

1. All sidewalk construction or replacement shall follow the Americans With Disabilities Act and be five (5) feet wide, a minimum of four (4) inches thick, and made of 3,500 psi concrete with either residential fiber or 6" x 6" mesh reinforcement wire. All sidewalks shall be placed and finished according to all applicable procedures recommended by the National Ready Mix Concrete Association or the Tennessee Ready Mix Concrete Association.
2. Subgrade preparation for sidewalks, driveways, and median pavement shall be made to the required depth and to a width that will permit the installation and bracing of the forms. The subgrade shall be shaped and compacted to a firm, even surface in reasonably close conformity with the grade and cross section shown on the Plans. All soft and yielding material shall be removed and replaced with acceptable material, which shall then be

compacted as directed. Crushed stone shall be placed to a minimum depth of 4-inches under all sidewalks, but may be deeper if conditions warrant.

3. Unless otherwise indicated on the Plans or directed by the Engineer, premolded expansion joint filler, 1 inch (25 mm) in thickness, shall be placed at the locations and in line with expansion joints in the adjoining pavement, gutter or curb. All premolded expansion joint filler shall be cut to full width or length of the proposed construction and shall extend to within 1 inch (25 mm) of the top or finished surface. All longitudinal expansion joints shall be placed as indicated on the Plans or as directed by the Engineer. All expansion joints shall be true, even, and present a satisfactory appearance.
4. Construction joints shall be formed around all appurtenances, such as manholes, utility poles, etc., extending into and through the sidewalk or median area. Premolded expansion joint filler, 1 inch (25 mm) thick, shall be installed in these joints. Expansion joint filler of the thickness indicated shall be installed between concrete sidewalks and any fixed structure, such as a building or bridge. One inch (25 mm) thick expansion joint filler shall be installed between concrete curb and median pavement and, unless otherwise specified, between concrete curb and sidewalk. This expansion joint material shall extend for the full depth of the walk or median pavement.
5. The concrete shall be struck-off with a transverse template resting upon the side forms. After the concrete has been struck-off to the required cross section, it shall be finished with floats and straightedges until the required surface requirements have been obtained.
6. When the surface of the concrete is free from water and just before the concrete obtains its initial set, it shall be finished and swept lightly with a broom in order to produce a sandy texture. The longitudinal surface variations shall be not more than 1/4 inch (6 mm) under a twelve (12) foot (3.6 m) straightedge, nor more than 1/8 inch (3 mm) on a five (5) foot (1.5 m) transverse section. The surface of the concrete shall be so finished as to drain completely at all times.
7. The edges of the sidewalks, driveways and median pavement shall be carefully finished and rounded with an edging tool having a radius 1/2 inch (13 mm).
8. The surface of sidewalks shall be divided into blocks by use of a grooving tool. The grooves shall be spaced approximately five (5) feet (3 m) apart and the blocks shall be rectangular unless otherwise ordered by the Engineer. The grooves shall be cut to a depth of not less than one (1) inch. The edges of the grooves shall be edged with an edging tool having a radius of 1/4 inch (6 mm). Grooves shall be placed in median pavement in line with corresponding joints in adjoining construction or as directed by the Engineer.
9. Unless otherwise indicated on the Plans, marks or grooves shall be placed at right angles to the center-line of driveways and approximately eight (8) inches (200 mm) apart. These markings shall be between 1/8 and 1/4 inch (3 to 6 mm) in depth and shall be made with a suitable marking tool. A grooving tool, six (6) to eight (8) inches (150 to 200 mm) in width, with multiple grooves for grooving alternate strips eight (8) inches (200 mm) apart, may be used. Any irregularities caused by the edges of the marking tool shall be removed by the use of a wetted brush or wooden float. All marking edges shall be rounded satisfactorily.
10. Grooves shall not be placed in the surface of sidewalks or driveways reinforced for beam action where the full thickness of concrete is required for strength.
11. The edges of the concrete at expansion joints shall be rounded with an edging tool having a radius of 1/4 inch (6 mm). All marks caused by edging shall be removed. The top and

ends of expansion joint material shall be cleaned of all concrete, and the expansion joint material shall be so trimmed as to be slightly below the surface of the concrete.

12. Forms may be removed at any time that removal will not damage the concrete. No pressure shall be exerted upon the concrete in removing forms.
13. Pedestrians will not be allowed upon concrete sidewalks, driveways, or medians until twelve (12) hours after finishing concrete, and no vehicles or loads shall be permitted on any sidewalk, driveway, or median until the Engineer has determined that the concrete has attained sufficient strength for such loads. The developer shall provide concrete cylinder breaks at 14 and 28 days to illustrate concrete strength. Cylinder breaks shall be performed at least once for each day's pour, and for every 20 cubic yards of concrete placed. Cylinders shall be made from concrete taken directly from the truck. Cylinders shall be made by a qualified technician.
14. The Contractor shall construct and place such barricades and protection devices as are necessary to keep pedestrians and other traffic off the sidewalk, driveway, or median.
15. Any sidewalk, driveway, or paved median damaged prior to final acceptance of the project shall be repaired, at the Contractor's expense, by removing concrete within groove limits and replacing it with concrete of the type and finish in the original construction.
16. Immediately after removing the side forms, the spaces along the edges of sidewalk or driveway shall be filled with suitable material. This material shall be placed in layers not exceeding four (4) inches (100 mm) in loose thickness, and compacted until firm and stable.

APPENDIX C
FIRE HYDRANT CLASSIFICATION AND
COLOR CODE SCHEME

GENERAL INSTRUCTIONS

To insure that a uniform color code scheme is used throughout the county when installing fire hydrants, the following classification and color code shall be used.

A. CLASSIFICATION OF HYDRANTS

Fire hydrants shall be painted in a uniform color coding scheme in order to designate the rated flow capacity of the hydrant. The regulations of the National Fire Protection Association (NFPA), Section 291, Recommended Practice For Fire Flow Testing And Making Of Hydrants, 1988 Edition shall be used.

Hydrants shall be classified in accordance with their rated capacities (at 20 psi (1.4 bar) residual pressure or other designated value) as follows:

Class AA	Rated capacity of 1500 gpm or greater (5680 L/min)
Class A	Rated capacity of 1000-1499 gpm (3785-5675 L/min)
Class B	Rated capacity of 500-999 gpm (1900-3780 L/min)
Class C	Rated capacity of less than 500 gpm (1900 L/min)

B. MARKING OF HYDRANTS

All barrels should be chrome yellow unless otherwise designated by the local utility district. The tops and nozzle caps shall be painted with the following capacity-indicating color scheme:

Class AA	Light blue
Class A	Green
Class B	Orange
Class C	Red

For rapid identification at night, the capacity colors shall be of a reflective-type paint.

Hydrants rated at less than 20 psi (1.4 bar) shall have the rated pressure stenciled in black on the hydrant top.

