# Subdivision and Land Development Regulations



# City of Three Way, Tennessee and Planning Region

Adopted: June 7, 2010 Revised: December 1, 2014

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# Article I | General Provisions

#### A. Purpose

The purpose of these Subdivision and Land Development Regulations is to ensure the appropriate division of land within the City of Three Way. In particular, it is the intent of these Subdivision and Land Division Regulations to encourage the development of safe and attractive residential neighborhoods and non-residential developments; ensure the provision of appropriate public street access between and among adjacent properties; ensure adequate provision for drainage and appropriate arrangements of buildings and parking areas on the site and with nearby properties; obtain public right-of-way, easements and other public land dedications, consistent with the Comprehensive Plan of the Three Way Tennessee Planning Region; maintain appropriate buffers between potentially incompatible land uses; discourage development on steep slopes and in floodplains; and encourage the preservation of historical, archeological, and/or natural significant features and landmarks; to ensure the distribution of population and traffic all of which improve the health, safety, and welfare of the community.

#### B. Authority

These regulations are adopted pursuant to the authority contained within Title 13 Chapter 3 of the *Tennessee Code Annotated*. The Regional Planning Commission has fulfilled the requirements set forth in these statutes as a prerequisite to the adoption of these regulations by having filed a certified copy of the Major Road and Street Plan in the office of the Register for Madison County, Tennessee on September 20, 2006 as revised thereafter.

Whenever any provisions of these regulations refers to or cites a section of the *Tennessee Code Annotated* and that section is later amended or superceded, then that regulation shall be deemed amended to refer to the amended section or the section that most nearly corresponds to the superceded section.

#### C. Jurisdiction

These regulations shall be effective throughout the City of Three Way's planning jurisdiction. The City's planning jurisdiction comprises the area within the corporate boundaries of the City of Three Way, Tennessee, as well as, the area established by Resolution of the Tennessee State Planning Commission as the Three Way Planning Region.

#### D. Fees

(a) A Review Fee shall be required for the review of all land divisions and site developments. Applications must be accompanied by the applicable review fee as established by the Three Way Municipal Regional Planning Commission, hereinafter referred to as "Planning Commission".

(b) Review Fee Exemptions – Fees are not required with applications initiated by the City of Three Way, Madison County, Planning Commission, Board of Zoning Appeals, or the Jackson Madison County Public School System. Application filing fees shall be required of any other public or private applicant.

#### E. Conflicts

If a conflict arises between any provisions of an ordinance of the City of Three Way or Resolution of Madison County, and a plat or site plan, the provisions of the City and County shall control. However, if a plat has been approved and recorded, such plat shall control.

#### F. Zoning and Other Regulations

In addition to the requirements set forth in these Subdivision and Land Development Regulations, all proposed subdivision plats shall comply with all applicable laws, ordinances, resolutions, rules, or regulations, including, but not limited to the following:

- a. All applicable provisions of United States federal law, regulations, or policy.
- b. All applicable provisions of Tennessee state law, regulations, or policy.
- c. Any Municipal Code, County Resolution, Zoning Ordinance, or Building and Housing Code.
- d. The adopted Comprehensive Land Use Plan.
- e. The adopted Major Road and Street Plan.
- f. The rules of the Madison County Health Department.
- g. The rules of the Tennessee Department of Environment and Conservation.
- h. The rules of the Jackson Energy Authority.
- i. The rules of the E-911 Administrative Office.
- j. The rules, as applicable, of the Federal Highway Administration.
- k. The rules, as applicable, of the Tennessee Department of Transportation.
- I. The standards, regulations, and policies adopted by any other board, commission, or agency associated with subdivision review on behalf of the Planning Commission.

#### END OF ARTICLE I

# Article II | Glossary

# A. Definitions and Rules of Construction

For the purpose of these Regulations, words used in the present tense shall include the future, the singular number shall include the plural and the plural the singular. The word "shall or will" is mandatory and not directory. The word "may or should" shall be deemed permissive. Unless otherwise specifically provided, or unless clearly required by the context, the words and phrases defined in this section shall have the meaning indicated when used in these regulations:

Base Flood	shall mean the FEMA designated flood having a one percent chance of being equaled or exceeded in any given year. Also known as the 100-year flood.
Block	shall mean a parcel of land or group of lots completely surrounded by streets, or a parcel of land or group of lots having frontage along one side of a dedicated public street, or between two dedicated intersecting public streets.
Board of Alderman	shall mean the elected legislative body of the City of Three Way, Tennessee.
Building Setback Line	shall mean the line indicating the minimum distance between any building and a lot line or right-of-way.
City	shall mean the legal entity of the City of Three Way, Tennessee as incorporated under the laws of Tennessee.
CLOMR	Conditional Letter of Map Revision: A document issued by FEMA allowing an applicant to make a modification to the boundaries of the existing FEMA mapped floodplain.
Commission	shall mean the Three Way Municipal Regional Planning Commission.
County	shall mean Madison County, Tennessee.
County Commission	shall mean the elected legislative body of Madison County, Tennessee.
Density	shall mean the number of dwelling units or non-residential building square footage per acre of land, as a unit of measure.
Developer	shall mean any person or corporation or duly authorized agent who is responsible for an undertaking that requires an approval under these regulations.

Driveway	shall mean a private accessway that provides vehicular access from an approved public or private street to individual parcels, buildings or parking lots.
Dwelling, Single-Family Attached	shall mean one-family dwelling attached to two or more one-family dwellings by vertical walls. This definition includes such dwelling types as townhouses, triplex, and quadraplex.
Dwelling, Single-Family Detached	shall mean a dwelling designed for one family which is not attached to any other dwelling by any means.
Dwelling, Two-Family	shall mean a one-family dwelling attached to one other one-family dwelling by a common wall.
E-911 Administrative Office	shall mean the agency that is responsible for the administration of the approval of street names and addresses for Madison County.
Easement	shall mean the right granted by the owner of land to another party (either public or private) for a specific limited use of that land. The following are types of easements as used in these Regulations:
Easement, Drainage	shall mean the right to restore, maintain or repair ditches, drainage structures, pipes, weirs, catch basins or manholes for the management of storm water together with rights for entering and exiting the property for this purpose.
Easement, Travel (Residential)	shall mean the right granted by the owner of land to another party, by deed or prescription, to allow access across one parcel of land to another.
Easement, Travel (Commercial & Industrial)	shall mean the right granted by the owner of land to another party, by deed or prescription, to allow access across one parcel of land to another.
Easement, Utility	shall mean the perpetual right granted by the owner of land to the public or utility service provider, in the form of dedication, to enter at any time to construct, install, maintain, repair, rebuild, operate, and patrol its electric, gas, water, wastewater, and telecommunication line(s) and all necessary appurtenances, in on, over, under, and across the easement together with the right to clear said easement and keep it clear of brush, trees, structures, and fire hazards, and to remove dangerous trees, if any, located beyond the limits of the easement. Any easement

	thus created should be recorded by deed or plat in the Register's Office of Madison County, Tennessee.	
Engineering Department	shall mean the department within the City of Three Way, or agency retained on contract as an authorized consulting engineering firm, that is responsible for all engineering design and technical services for the City, including contract administration, for road, bridge, signal, sidewalk, drainage and other public works projects.	
Engineering Staff	shall mean the staff member(s) of the City Engineering Department who is/are charged with the technical engineering review and inspection of subdivision design and infrastructure improvements as contained within these Regulations.	
FEMA	shall mean the Federal Emergency Management Agency.	
FEMA Floodplain	The 100 year Flood Elevation as approved by FEMA as referenced on the FIRM and Flood Insurance Studies or as modified through an approved CLOMR/LOMR process.	
FEMA Floodway	The natural channel and the portion of the floodplain along the channel that must be retained solely for the passage of floodwaters to prevent an undue increase in flood heights upstream as approved by FEMA and referenced on the FIRM and Flood Insurance Studies or as modified through an approved CLOMR/LOMR process.	
Flag lot	means a lot having only a narrow portion of which fronts on a public/private street and where access to the larger lot area is across that narrow portion for the exclusive use of that lot only.	
Flood Insurance Rate Map (FIRM)	An official map of a community on which the Federal Emergency Management Agency (FEMA) has delineated areas in the floodplain subject to inundation of the base flood and the risk premium zones based on the technical data in the Flood Insurance Study.	
Flood Insurance Study	The official report provided by the Federal Emergency Management Agency (FEMA) that includes flood profiles and the water surface elevation of the base flood.	
Health Department	shall mean the Jackson/Madison County Health Department.	

Improvements	The physical changes made to raw land and structures on or under the land surface in order to make the land more useable. Typical improvements in these regulations shall include, but shall not be limited to, street base, pavements, curb, gutter, sidewalk, walkways, water mains, sanitary sewer, storm sewer, street name signs, street lights, drainage facilities, erosion control, landscaping, and any other such items as may be specifically designated by the Planning Commission.
Jackson Energy Authority (JEA)	shall mean the agency that is responsible for the administration review of utility design and installation for the City.
LOMR	Letter of Map Revision: A document issued by FEMA approving changes to the boundaries of the existing FEMA mapped Floodplain based upon as-built conditions of modifications made within the floodplain.
Lot	A designated parcel, tract, or area of land established by plat, subdivision, or otherwise permitted by law, occupied or intended to be occupied by a principal building or use and its accessory buildings and uses. For the purpose of these Regulations, this term does not include any portion of a dedicated right-of-way. If a public body or any other authority with the power of eminent domain condemns, purchases, or otherwise obtains fee simple title to, or a lesser interest in, a strip of land cutting across a parcel of land otherwise characterized as a lot by this definition, or a public road is created across a parcel of land otherwise characterized as a lot by this definition, and the interest thus obtained or the road so created, is such as effectively to prevent the use of this parcel as one lot, then the land on either side of this strip shall constitute a separate lot.
Lot Area	The total gross lot area circumscribed by the boundaries of a lot, except that when the legal instrument creating a lot shows the boundary of the lot extending into a public right-of-way, then the lot boundary for the purposes of computing the lot area shall be the street right-of-way line, or if the right-of-way line cannot be determined, a line running parallel to and 25 feet from the center of the traveled portion of the street.
Lot, Corner	shall mean a lot located at the intersection of two or more streets; a lot abutting on a curved street or streets shall be considered a corner lot if straight lines drawn from the

	foremost point of the lot meet at an interior angle of less than 135 degrees.
Lot, Double Frontage	shall mean a lot other than a corner lot with frontage on more than one street.
Lot Frontage	shall mean the dimension of a lot or a portion of a lot abutting a street, excluding the side dimension of a corner lot. A lot may have more than one frontage; however, only one frontage shall be required to meet the minimum frontage requirements of these Regulations. Situations in which property abuts the end line of a street designed later to be extended shall not be deemed frontage situations.
Lot Line	shall mean the legal boundary of a lot.
Lot Width	shall mean the length of a straight line drawn between the points where any street setback line cuts the lot lines adjacent to and intersecting that street line from which the setback is measured. In the case of a lot situated along a radius, the lot width shall be measured as a tangent segment at the minimum zoning setback distance from lot line to lot line. Lot width requirements shall be applied for each separate lot frontage.
Major Road and Street Plan	An official map depicting the general locations and required widths of the major arterial and collector streets within the Three Way Planning Region.
Pedestrian Walkway	shall mean a right-of-way dedicated to public use adequate in width intended primarily for pedestrians, and from which motor propelled vehicles are excluded, and which is designed to improve or provide pedestrian access to adjacent streets or lots.
Planning Commission	shall mean the Three Way Municipal Regional Planning Commission.
Planning Department	shall mean the department within the City of Three Way, or agency retained on contract as an authorized consulting planning firm, that serves as the staff to the Planning Commission and who is responsible for the administration of land use regulations, current and long range planning duties for the City and its Planning Region.
Planning Jurisdiction	shall mean the area within the corporate limits of the City of Three Way, Tennessee as well as the area beyond the

corporate limits in which the City has been authorized to plan for and regulate development in its approved urban growth boundary and Planning Region.

- Planning Regionshall mean the area of planning jurisdiction for the ThreeWay Municipal Regional Planning Commission.
- Planning Staffshall mean the staff member(s) of the Planning<br/>Department who is/are charged with the interpretation,<br/>administration, and enforcement of these Regulations.
- **Plat, Preliminary (Schematic)** shall mean the preliminary development plan for a piece of property that includes a topographic survey, conceptual alignment of proposed streets, general layout of proposed lot arrangement, and other features in relation to existing conditions. The Preliminary Plat illustrates the way the developer intends to develop the property.
- Plat, Construction shall mean the detailed technical engineering drawings in the development engineering design, including storm water run-off, street horizontal and vertical alignment, erosion control, and site grading.
- Plat, Final shall mean the surveyed depiction of the division of any tract of land into two or more lots, including the required approval certificates and that is approved for the purpose of public recordation in the Register of Deeds Office of Madison County, Tennessee.
- **Registered Engineer** shall mean an engineer certified and registered and licensed by the State Board of Architectural and Engineer Examiners pursuant to Section 62-202, Tennessee Code Annotated, to practice in Tennessee.
- **Registered Land Surveyor** shall mean a land surveyor certified and registered and licensed by the State Board of Land Survey Examiners pursuant to Section 62-1803, Tennessee Code Annotated, to practice in Tennessee.
- **Registered Landscape Architect** shall mean a landscape architect certified and licensed by the State Board of Landscape Architects pursuant to Section 62-203, Tennessee Code Annotated, to practice in Tennessee.
- Specimen TreeAny tree that has been individually designated by the City<br/>to be notable by virtue of its outstanding size and/or<br/>quality for its particular species.

Street	shall mean a strip of land subject to vehicular, bicycle, or pedestrian traffic and providing direct or indirect means of access to property, including, but not limited to, road, lane, drive, trail, court, place, terrace, alley, highway, boulevard, and any other thoroughfare to which an offer of dedication has been made and acceptance of dedication has been made by the City of Three Way or Madison County.
Street, Private	shall mean a local street constructed to required specifications and guaranteed to be maintained by a private corporation by means of a covenant, deed and easement acceptable to the City or County and with guaranteed public vehicular access.
Structure	shall mean any erected material or combination of materials the use of which requires a location on the ground, including, but not limited to, buildings, houses, stadiums, radio towers, sheds, storage bins, fences, septic tanks, and signs.
Subdivision	shall mean the division of a lot, parcel or tract of land, or interest in real property, into two or more lots, plots, sites, parcels, or other divisions requiring new street or utility construction, or any division of a lot, parcel or tract of land of five (5) acres in size or less, for the purpose, whether immediate or future, of transfer, sale, or building development; or the resubdivision or consolidation of existing lots, parcels, tracts or other divisions of existing and duly recorded subdivisions. The subdivision of a lot or parcel for the purpose of sale, gift, or any other transfer of such lot or parcel to a member of the immediate family of the owner shall be subject to all the requirements of these Regulations. These Regulations shall not apply to a division of land made solely for the conveyance of land for public purposes to or by the City of Three Way or Madison County.
Subdivision, Minor	shall mean a subdivision that does not involve any of the following:
	<ul> <li>(a) the creation of more than one additional lot;</li> <li>(b) the creation of any new public streets;</li> <li>(c) the extension of a public water or sewer system; or</li> <li>(d) the installation of drainage improvements through one or more lots to serve one or more other lots.</li> </ul>
трот	shall mean the Tennessee Department of Transportation.

Watercourse	shall mean a definite channel with bed and banks within which water flows either continuously or intermittently.
Zoning Regulations	shall mean the latest edition of the City of Three Way, Tennessee Zoning Ordinance adopted by the Board of Alderman, or the Three Way, Tennessee Planning Region Zoning Resolution adopted by the County Commission.

# END OF ARTICLE II

# Article III | Subdivision

# A. General Criteria for Review and Approval of Subdivisions

The Three Way Municipal Regional Planning Commission shall review and have the authority granted by *Tennessee Code Annotated* Title 13 to approve all subdivision plats, including preliminary plats, construction plats, and final plats, as defined by these Subdivision and Land Development Regulations.

Pursuant to *Tennessee Code Annotated* 13-4-304, the Planning Commission shall act to approve or disapprove any preliminary, construction, or final plat located within the corporate limits of Three Way, Tennessee within sixty (60) days from acceptance of the plat application for review. Failure of the Commission to act on the plat within the required 60-day period shall result in the immediate approval of the proposed plat.

Pursuant to *Tennessee Code Annotated* 13-3-404, the Planning Commission shall act to approve or disapprove any preliminary, construction, or final plat located within the Three Way Planning Region within sixty (60) days from acceptance of the plat application for review. Failure of the Commission to act on the plat within the required 60-day period shall result in the immediate approval of the proposed plat.

In approving such subdivisions, the Planning Commission shall be provided with suitable information in order to make a determination that the proposed plat provides:

- (a) For the minimum graphic and information requirements of these Subdivision and Land Development Regulations;
- (b) For the coordination of streets within and contiguous to the subdivision with other existing or planned streets within the general area as to location, widths, grades and drainage, including the coordination of such streets with existing or planned streets in existing or future adjacent or contiguous to adjacent subdivisions;
- (c) For adequate provisions for drainage and flood control and other public purposes, and for light and air, and for identifying soil characteristics;
- (d) For the extent to which and the manner in which streets shall be graded, graveled, paved, or otherwise improved and waterline and storm and sanitary sewer and other public utilities or other community facilities are to be installed;
- (e) For the acceptance and dedication for the public use any right-of-way within any subdivision or section thereof that has been improved and constructed, or proposed to be constructed, any street, curb, gutter, sidewalk, bicycle lane or path, drainage, sewerage system, or waterline, and is to be maintained by the City or County, and the provision of other required site-related improvements for vehicular ingress and egress, including traffic signalization and control, structures necessary to ensure stability of critical slopes, and stormwater management facilities;

- (f) For the conveyance to the appropriate utility service provider of common or shared easements for cable television and public service corporations furnishing cable television, broadband, gas, telephone, and electric service to the proposed subdivision;
- (g) For monuments of specific types to be installed establishing street and property lines;
- (h) For the payment by the developer of the cost of providing reasonable and necessary water, sewerage and drainage facilities located outside the property limits of the land owned or controlled by the developer but necessitated or required, at least in part, by the construction or improvement of the subdivision or development, as provided in the Off-Site Improvements Section of these Regulations;
- (i) For voluntary funding by the developer of road improvements located outside the property limits of the land owned or controlled by the developer and needed because the construction or improvements of the subdivision or site substantially generates and reasonably requires such road improvements;

# B. Pre-Application Conference Requirement

In order to minimize development planning costs, avoid misunderstanding or misinterpretation, and to ensure compliance with the requirements of these Regulations and the applicable City ordinances or County Resolutions and prior to submitting an application for preliminary subdivision plat approval, the applicant shall meet with representatives of the Planning Department to review a sketch plan of the proposed subdivision.

# C. Filing of Preliminary Subdivision Plat

Following the mandatory pre-application conference, the applicant is authorized to submit a preliminary plat and application for approval of the proposed subdivision to the Planning Staff. Preliminary plat applications shall be complete and include the following:

- (a) A completed application form for preliminary plat approval.
- (b) At least seven (7) full-size copies of the proposed preliminary plat.
- (c) One (1)  $8\frac{1}{2} \times 11$  size copy of the proposed preliminary plat.
- (d) One (1) Portable Document Format (PDF) file of the proposed preliminary plat.
- (d) One digital AutoCAD copy of the proposed preliminary plat rotated to the required State Plane Coordinates and containing the appropriate layers as depicted in Appendix C.
- (e) The application fee required for filing the preliminary plat.
- (f) An approval form from the E-911 Administrative Office of proposed street names. The proposed street names shall not duplicate existing or platted names unless the new street is a continuation of an existing or platted street.

#### D. Review and Approval of Preliminary Subdivision Plat

#### (a) <u>Review for Completeness and Technical Accuracy of Application</u>

The Planning Staff shall conduct an initial review of the preliminary plat application for the proposed subdivision for completeness and technical accuracy. The Planning Staff shall notify the applicant as to whether the plat has been accepted or rejected based on significant deficiencies in the preliminary plat application. Applications for preliminary plat approval, which are deemed incomplete shall not be accepted until the deficiencies have been properly addressed.

#### (b) <u>Referral of Application to Review Agencies</u>

Upon acceptance of a complete application, the Planning Staff shall forward the plat and related information to the following review agencies as appropriate:

- (1) Engineering Staff
- (2) Planning Staff
- (3) Jackson Energy Authority Engineering Staff
- (4) AT&T Telephone Company
- (5) Madison County Highway Department
- (6) Southwest Electric Membership Cooperative
- (7) Tennessee Department of Transportation, when such application affects a road maintained by the State of Tennessee
- (8) Any other Federal, State, or Local Agency that may have cause to review the application

# (c) Detailed Staff Review of Preliminary Plat

The Planning Staff shall coordinate the review by referral agencies and compile their comments. The planning staff shall report in writing those corrections or additions deemed necessary by him and other officials or agencies interested in the application to the Commission as soon as the comments are available.

# (d) <u>Planning Commission Review and Action</u>

Upon submittal of a complete application, the Planning Commission shall act to approve or disapprove the plat. If the plat is disapproved, the Planning Staff shall notify the applicant of such disapproval and shall set forth in writing the reasons for the Planning Commission's disapproval and shall further specify what corrections or modifications would permit approval by the Planning Commission. If the Planning Commission disapproves a preliminary plat, it shall act on a resubmission that modifies and corrects any deficiencies upon the resubmission of a new completed application and review fee. Upon the final approval of the preliminary plat by the Planning Commission, the developer shall submit to the Planning Staff eighteen (18) copies of the preliminary plat, as approved, for distribution to necessary public agencies and review agencies.

#### (e) <u>Significance of Preliminary Plat Approval; Expiration of Preliminary Plats</u>

Preliminary plat approval is tentative and does not authorize the construction of any improvements within the subdivision. Preliminary plat approval applies to the general development scheme only, the developer(s) shall comply with all design requirements contained within these Subdivision and Land Development Regulations.

Approval of a preliminary plat shall be valid for a period of five (5) years from the date of Commission action, provided the applicant thereafter diligently pursues approval of the final subdivision plat. "Diligent pursuit of approval" means that the applicant has incurred extensive obligations or substantial expenses relating to the submitted final subdivision plat or modifications thereto. However, no sooner than three (3) years following such preliminary plat approval, and upon 90 days written notice by certified mail to the applicant, the Planning Commission may revoke such approval upon a specific finding of facts that the applicant has not diligently pursued approval of the final subdivision plat.

# (f) Effect of Approval on Successors and Assigns

Preliminary plat and final plat approvals, along with any conditions, or restrictions thereon, are transferable and apply to a new owner of the same property subject to the approved plat pursuant to the terms and conditions of these Regulations.

# (g) <u>Modifications of Preliminary Subdivision Plats</u>

- (a) Insignificant deviations or minor design modifications from the approval issued by the Planning Commission are permissible and the Planning Staff may authorize such insignificant deviations. A deviation is insignificant if it has no discernable impact of neighboring properties or traffic patterns, the general public, or those intended to occupy or use the proposed development. Such permission may be obtained without formal application, public hearing, or payment of any additional fee.
- (b) All other requests for changes in approvals issued by the Planning Commission will be processed as new applications.
- (c) The Planning Staff shall determine whether amendments to and modifications of plat approval falls within the categories set forth above.
- (d) A developer requesting approval of changes shall submit a written request for such approval to the Planning Staff, and that request shall identify the changes. Any changes to previously granted approvals must be given in writing.

# (h) <u>Reconsideration of Denied Preliminary Subdivision Plats</u>

Whenever the Planning Commission disapproves a preliminary plat application on any basis, other than the failure of the applicant to submit a complete application, such action may not be reconsidered by the Commission at a later time unless the applicant clearly demonstrates that:

- 1) circumstances affecting the property that is the subject of the application have substantially changed, or
- 2) new information is available that could not with reasonable diligence have been presented at a previous meeting.

The Planning Commission may at any time consider a new application affecting the same property as an application previously denied if the new application is not one that differs in some substantial way in the judgment of the Planning Commission from the one previously considered.

# E. Maintenance of Common Areas and Facilities Depicted on Preliminary Plats

The recipient of any preliminary or final plat approval, or his/her successor, shall be responsible for maintaining all common areas, improvements, or facilities required by these Regulations or any permit issued in accordance with their provisions, except those areas, improvements, or facilities with respect to which an offer of dedication to the public has been accepted by the appropriate public authority. As illustrations, and without limiting the generality of the foregoing, this means that private roads and parking areas, storm water detention and retention facilities, water and sewer lines, and recreational facilities must be properly maintained so that they can be used in the manner intended, and required vegetation and trees used for screening, landscaping, or shading must be replaced if they die or are destroyed.

Responsibilities described herein may be assigned to a Homeowners' Association or like group when documents are provided to the Commission that assures the existence and financial capacity of the responsible entity.

# F. Required Contents of Preliminary Subdivision Plats

All preliminary plats shall provide all the facts necessary to show compliance with these Subdivision and Land Development Regulations. The Planning Staff shall have the authority to waive certain submittal requirements for plats, if it is determined such information is not necessary for the review and approval of the plat and that not providing the information will in no way affect any public improvements, adversely affect adjoining properties, or conflict with any other requirements of the Zoning Ordinance or the Subdivisions and Land Development Regulations. Such waivers must be approved prior to submission of the plat.

Unless a waiver is approved, as authorized above, all applications for preliminary plat approval shall be accompanied by the following information:

- (1) General Information
  - (a) Name of the proposed subdivision, which shall not duplicate or closely resemble that of any existing subdivision.
  - (b) Proposed uses(s) of the property.
  - (c) Names and addresses of the owner(s) of record with deed reference.
  - (d) Names, address, signature and registration of professionals preparing the plat, who shall be a registered civil engineer, land architect, or land surveyor licensed in the State of Tennessee.
  - (e) Names and addresses of all adjoining property owner(s), along with deed references of each and identify any adjoining subdivisions with plat book reference.
  - (f) Date plat was drawn and of any revision.
  - (g) Vicinity Map.
  - (h) Existing or proposed zoning of the subject property.
  - (i) Identify any variances or waivers requested with a note on the plat.
- (2) Project Tabulations
  - (a) Gross acreage of the subdivision, to the nearest one-tenth of an acre and the acreage remaining in the original tract, if any.
  - (b) Proposed lots with dimensions, lot numbers, and lot area.
  - (c) The names and dimensions of proposed streets and easements.
  - (d) Land area in common space and common open space as a percentage of the subdivision.
- (3) Existing Site Conditions
  - (a) Map survey of the boundary with all existing property lines.
  - (b) Existing topography with minimum of two-foot contour interval within the subdivision and all overland watercourses and drainage structures within the subdivision and within 100 feet surrounding the subdivision prepared

by a registered land surveyor and meeting the standards of practice for land surveyors.

- (c) Location and full width of existing rights-of-way.
- (d) Location and explanation of existing easements.
- (e) Location and dimensions of existing streets, driveways, and access points on the property and within 200 feet of the site.
- (f) Location of 100-year floodplain as shown on the most recent Federal Emergency Agency (FEMA) maps.
- (g) All overland watercourses and drainage structures within the subdivision and within 100 feet of the subdivision.
- (h) Existing zoning of all adjacent property.
- (i) Indication of areas of tree cover on the property, including areas where tree protection or preservation measures will be taken. All trees with a diameter at breast height (dbh) of 12 inches or greater shall be specifically identified on the plat. Groups of trees may be delineated by drawing the drip line around the group's perimeter.
- (j) Archeological, natural and historical features and landmarks to the extent as previously documented. Plat shall be revised to delineate any such features or landmarks discovered during the review process.
- (k) Location, elevation, and description of all U.S.G.S. survey control monuments or equivalent.
- (I) Identification and location of areas of contamination, remediation, and other adverse environmental conditions of the property.
- (m) Identification and location of any grave, object, or structure marking a place of burial.
- (4) Graphic Requirements
  - (a) All sheets shall be clearly and legibly drawn at a scale not less than 100 feet to the inch, with north arrow, on numbered sheets 24 x 36 inches in size, which shall clearly be marked "Preliminary Plat". If more than one sheet is necessary, a match line and corresponding sheet numbering system shall be provided.
  - (b) Location and right-of-way width of all proposed streets, common driveways, parking courts, sidewalks, and trails. Proposed streets shall include approved street names.

- (c) Street centerline data, including centerline radius and arc length of curves.
- (d) Location and size of existing sewer, gas, and water pipelines, and other public utilities within, adjacent to, or near the proposed subdivision.
- (e) Preliminary layout of provision for collecting and discharging surface drainage.
- (f) An indication of phases or sections within the proposed subdivision and the order of development.
- (g) Location and size of existing and proposed public open spaces within and adjacent to the subdivision.
- (h) Locations and size of all parcels of land and easements proposed to be dedicated for public use.
- (i) The location and width of any required zoning buffer areas, the plat shall include the type and location of the buffer yard proposed.
- (j) Preliminary design of facilities proposed within common open space areas, including the number of parking spaces proposed, if any.
- (5) Other Information
- (a) Any other information that may be necessary for the full and proper consideration of the site for a subdivision.
- (b) North point of orientation for the survey shall be with the grid of the Tennessee Coordinate System of 1983 (TCA 66-6-101). 1988 North American Vertical Datum should be used.
- (c) The following note shall be placed on the preliminary plat in accordance with TCA 13-3-412 if the proposed subdivision is located in whole or in part within one thousand (1,000) feet of any portion of the outside boundary of any land on which is constructed or operated a sport shooting range:

"This property is located in the vicinity of an established sport shooting range. It can be anticipated that customary uses and activities at this shooting range will be conducted now and in the future. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience that may result from these uses and activities."

#### G. Filing of Construction Drawings

Following the approval of the preliminary plat by the Planning Commission, the developer is authorized to submit the application and fees for engineered construction drawing package review and approval. Drawings may be submitted for either the entire property, which receives preliminary plat approval, or for individual sections within the development. The construction drawing package application shall be complete and include the following:

- (a) A completed application form for construction drawing approval.
- (b) At least four (4) full-size copies of the proposed construction drawing package bearing the seal and signature of a Tennessee registered professional engineer.
- (c) One (1) Portable Document Format (PDF) file of each sheet within the proposed construction plat set.
- (d) One (1) digital AutoCAD copy of the proposed construction drawing package rotated to the required State Plane Coordinates and containing the appropriate layers as depicted in Appendix C.
- (e) The application and review fee required for filing the construction drawing package.

#### H. Review and Approval of Construction Drawings

(a) <u>Review for Completeness and Technical Accuracy of Application</u>

The Planning Staff shall conduct an initial review of the construction drawing application for completeness and technical accuracy. The Planning Staff will notify the developer if the drawings have been accepted or if there are significant deficiencies that have been identified that would cause rejection of the construction drawings. Construction drawings, which are deemed incomplete, shall not be accepted until the significant deficiencies have been corrected.

In reviewing the construction drawings for acceptance, the planning staff shall consider the orderly staging of development. In particular, the planning staff shall consider the proper access to the required area of development, and the feasibility of developing any served tract of land.

(b) Exemption to Construction Drawing Submittal

Where the proposed subdivision fronts on an existing public street, the construction drawing requirement shall be waived by the Planning staff on behalf of the Planning Commission, if the following conditions are met:

a. No street, drainage, or other improvements are involved.

- b. No conflict exists with the proposed subdivision and the recorded Major Road and Street Plan.
- c. It is clear that the purpose of such development is not used for staging development of large parcels of land, thereby short cutting the normal subdivision procedure.
- (c) <u>Referral of Application to Review Agencies</u>

Upon acceptance of a complete set of construction drawings, the Planning Staff shall forward the plans and related information to the following review agencies:

- (1) Engineering Staff
- (2) Planning Staff
- (3) Jackson Energy Authority Engineering Staff

The applicant shall directly submit the plat and related information to the following review agencies as appropriate:

- (1) Tennessee Department of Transportation, when such application affects a road maintained by the State of Tennessee
- (2) Any other Federal, State, or Local Agency that may have cause to review the application

# (d) Detailed Staff Review of Construction Drawings

The Planning Staff shall coordinate the review by referral agencies and compile their comments. The planning staff shall report in writing those corrections or additions deemed necessary by him and other officials or agencies interested in the review as soon as the comments are available.

The Engineering Staff review shall constitute a general review of the design of the registered engineer of record for the development, and shall determine conformance with the applicable subdivision and land development regulations only. The engineering review is not intended to be comprehensive or to certify complete compliance with federal, state, or local laws, rules, or regulations. It is the developer and engineer of record's sole responsibility to determine and fully comply with all aspects of these Subdivision and Land Development Regulations and all other applicable laws, rules, and regulations, and good engineering practice.

The review agencies shall determine that the construction drawings consider the general criteria established below:

#### (1) Water Systems

Connections to the City of Three Way water supply shall be required if public water is available to the project site. Public water systems shall be designed and constructed in compliance with the latest design and construction standards of the Jackson Energy Authority.

#### (2) Sanitary Sewer Systems

Connections to the City of Three Way sanitary sewer system shall be required, if public sewer is available to the project site. Public sanitary sewer systems shall be designed and constructed in compliance with the latest design and construction standards of the Jackson Energy Authority.

#### (3) Storm Drainage Systems

The construction drawings for subdivisions shall include appropriate provisions for public storm water drainage improvements and control.

#### (4) Floodwater Management and Environmental Protection

The construction drawings shall include appropriate provisions for environmental protection, including erosion and sediment control, tree preservation, slope protection, and flood control.

# (5) Transportation System and Circulation Network

Construction drawings shall include plans, specifications, and details necessary for the review and approval of public streets, private streets, sidewalks, bikeways, and pedestrian paths shall also be provided in accordance with the standards in these Subdivision and Land Development Regulations.

#### (6) Coordination of Other Public Improvements

The Jackson Energy Authority Engineering Staff shall review the construction drawings to ensure that all utilities are installed in accordance with JEA policies and procedures, and further that all utilities are suitably located, so as not to interfere with other public improvements.

#### (7) Other Improvements

All other improvements required by these Subdivision and Land Division Regulations and/or necessitated by the subdivision shall be included with the construction drawings and evaluated pursuant to applicable specifications of the City of Three Way.

# (8) Implications of Maintenance of Improvements

The Agency Review Staff shall review construction drawings to give an opinion if the proposed improvements can be properly and reasonably maintained. Easements shall be of appropriate size to facilitate the maintenance and repair of all public improvements.

#### (e) <u>Review Agency Action on Construction Drawings</u>

Upon submittal of a finalized and complete construction drawings package, the Review Agencies shall act to recommend approval or denial of the drawings. If the drawings are disapproved, the Planning Staff shall notify the applicant in writing that the plans are disapproved and specify the deficiencies in the construction drawings. If a Review Agency recommends denial of a set of construction drawings, the applicant may resubmit revised construction drawings to the Planning Staff that modifies and corrects any deficiencies along with a resubmittal review fee.

# (f) <u>Planning Commission Review and Action</u>

Upon an official recommendation of the construction drawings by all Review Agencies, the construction drawing package shall be submitted to the Planning Commission for final review and official approval. Once approved by the Planning Commission, the developer shall submit to the Planning Staff five (5) sets of the approved plans for distribution to necessary public agencies and review agencies. The developer shall also submit six (6) sets of the approved plans to the Jackson Energy Authority. Physical improvements to land to be subdivided may not be commenced except in accordance with construction plat approval, and in compliance with these Regulations and following the developer obtaining all other permits and/or approvals that may be required for the proposed development.

# (g) Expiration of Construction Drawings

Approval of construction drawings shall be valid for a period of one (1) year from the date of Commission action, provided the applicant thereafter diligently pursues approval of the final subdivision plat. "Diligent pursuit of approval" means that the applicant has incurred extensive obligations or substantial expenses relating to the submitted final subdivision plat or modifications thereto. However, upon 90 days written notice by certified mail to the applicant, the Planning Commission may revoke such approval upon a specific finding of facts that the applicant has not diligently pursued approval of the final subdivision plat.

# (h) Modifications of Construction Drawings

(a) Insignificant deviations or minor design modifications from the approval issued by the Planning Commission are permissible and the Planning Staff may authorize such insignificant deviations. A deviation is insignificant if it has no discernable impact of neighboring properties or traffic patterns, the general public, or those intended to occupy or use the proposed development. Such permission may be obtained without formal application, public hearing, or payment of any additional fee. This minor modification process is intended to allow the submission of revised insert sheets to approved construction drawings of active projects prior to completion of improvements. All minor modification requests shall be submitted to the Planning Staff and shall include a cover letter explaining the revisions made to the approved plans, and 2 copies of all plan sheets affected by the modification. All revised plan sheets shall include a revision date and description.

- (b) All other requests for changes in approvals issued by the Planning Commission will be processed as new applications.
- (c) The Planning Staff shall determine whether amendments to and modifications of plat approval falls within the categories set forth above.
- (d) A developer requesting approval of changes shall submit a written request for such approval to the Planning Staff, and that request shall identify the changes. Any changes to previously granted approvals must be given in writing.

#### I. Required Content of Construction Drawings

All construction drawings shall provide all the facts necessary to show compliance with these Subdivision and Land Development Regulations. The Planning Staff shall have the authority to waive certain submittal requirements for plans, if it is determined such information is not necessary for the review and approval of the plan and that not providing the information will in no way affect any public improvements, adversely affect adjoining properties, or conflict with any other requirements of the Zoning Ordinance or the Subdivisions and Land Development Regulations. Such waivers must be approved prior to submission of the plan. Unless a waiver is approved, as authorized above, all submissions for construction drawing approval shall be accompanied by the following information:

- (1) General Information
  - (a) Name of the proposed subdivision and section number if applicable.
  - (b) Names and addresses of the owner(s) of record with deed reference.
  - (c) Names, address, signature and registration of professionals preparing the plan, who shall be a registered engineer licensed in the State of Tennessee.
  - (d) Names and addresses of all adjoining property owner(s), along with deed references of each and identify any adjoining subdivisions with plat book reference.
  - (e) Date plat was drawn and of any revision.

- (f) Vicinity Map.
- (g) Identify any variances or waivers requested with a note on the plat.
- (2) Project Tabulations
  - (a) Gross acreage of the subdivision, to the nearest one-tenth of an acre and the acreage remaining in the original tract, if any.
  - (b) Proposed lots with dimensions, lot numbers, and lot area.
  - (c) The names and dimensions of proposed streets and easements.
  - (d) Land area in common space and common open space as a percentage of the subdivision.
- (3) Existing Site Conditions
  - (a) Map survey of the boundary with all existing property lines.
  - (b) Existing topography with minimum of two-foot contour interval within the subdivision and 100 feet surrounding subdivision prepared by a registered land surveyor and meeting the standards of practice for land surveyors.
  - (c) Location and full width of existing rights-of-way.
  - (d) Location and explanation of existing easements.
  - (e) Location and dimensions of existing roads, driveways and access points on the property and within 200 feet of the site.
  - (f) Location of 100-year floodplain as shown on the most recent Federal Emergency Agency (FEMA) maps.
  - (g) All overland watercourses and drainage structures within the subdivision or within 100 feet of the subdivision, along with any necessary stream or wetland determinations for identified water features.
  - (h) Indication of areas of tree cover on the property, including areas where tree protection or preservation measures will be taken. All trees with a diameter at breast height (dbh) of 8 inches or greater shall be specifically identified on the plat. Groups of trees may be delineated by drawing the drip line around the group's perimeter.
  - (i) Identification of all existing slopes greater than 15 percent, and further delineation of slopes greater than or equal to 25 percent.

- (j) Archeological, natural and historical features and landmarks to the extent as previously documented. Plat shall be revised to delineate any such features or landmarks discovered during the review process.
- (k) Location, elevation, and description of all U.S.G.S. survey control monuments or equivalent.
- (I) Location, elevation, and description of all placed benchmark monuments or suitably identified markers on a surface of a permanent structure that is referenced to mean sea level datum and for which the elevation above mean sea level has been determined to the nearest one-hundredth of a foot.
- (m) Location, elevation, and description of all placed temporary control monuments that is referenced to mean sea level datum and for which the elevation above mean sea level has been determined to the nearest one-hundredth of a foot.
- (n) Identification and location of areas of contamination, remediation, and other adverse environmental conditions of the property.
- (o) Identification and location of any grave, object, or structure marking a place of burial.
- (p) Location and size of existing sewer, gas, and water pipelines, and other public utilities within, adjacent to, or near the proposed subdivision.
- (4) Graphic Requirements
  - (a) All sheets shall be clearly and legibly drawn at a scale not less than 100 feet to the inch, with north arrow, on numbered sheets 24 x 36 inches in size. If more than one sheet is necessary, a match line and corresponding sheet numbering system shall be provided.
  - (b) Separate profile sheets shall be required depicting all necessary engineering data for the construction of each proposed street. The profile sheet shall show centerline geometry (bearings, length, curve radius, superelevation rates, transition lengths, etc.) on proposed streets showing existing and finished grades, all storm drainage pipes and drainage structures, curb ramp locations and types, manholes, inlets, headwater elevation of cross drain structures, and sewer locations, drawn to a scale of not less than one inch equals ten (10) feet vertical and one inch equals one hundred (100) feet horizontal if separate profile sheets are included for each utility service. However, if all utility services are depicted on the same profile sheet, the minimum scale shall be not less than one inch equals five (5) feet vertical and one inch equals fifty (50) feet horizontal. All elevations shall be expressed in relation to mean sea level.

- (c) Location, right-of-way width of all proposed streets, common driveways, parking courts, sidewalks, and trails. Proposed streets shall include approved street names.
- (d) Typical street cross-sections for each proposed street, including dimensions, cross slopes, side slopes, guardrail placement, curb and gutter type, depth and types of base, pavement section, and crosssection of ditches as needed. Separate cross-section depictions shall be provided for a street if it changes widths.
- (e) Location and size of existing and proposed public open spaces within and adjacent to the subdivision.
- (f) The location and width of any required zoning buffer areas, the plan shall include the type and location of the buffer yard proposed and all necessary construction details.
- (g) A separate comprehensive drainage study shall be provided with the construction drawing package detailing the engineering calculations that derived the depicted drainage improvements.
- (h) An erosion control plan.
- (i) Locations and size of all parcels of land and easements proposed to be dedicated for public use.
- (j) Design of facilities proposed within common open space areas, including the parking areas, if any.
- (k) Plans of proposed water and sewer utility layouts showing feasible connections to the existing or proposed utility systems. When such connections are not practicable, any proposed individual water supply and/or sewerage disposal system must be approved by the Jackson Madison County Health Department or the Jackson Energy Authority.
- (I) A pavement marking plan, where required.
- (m) A traffic signage plan
- (n) Location of ornamental street signs, if applicable meeting the requirements of Article VI. E. <u>Street Signs</u>.
- (o) A culvert cross-section for all cross drain structures.
- (p) All necessary structure details.

- (5) Other Information
  - (a) The plan shall include the appropriate design and details for all approved offsite improvements. The off-site improvement design plans shall meet the requirements listed for subdivision improvements contained within these Subdivision and Land Development Regulations.
  - (b) Any other information that may be necessary for the full and proper consideration of the site for a subdivision.
  - (c) North point of orientation shall be with the grid of the Tennessee Coordinate System of 1983 (TCA 66-6-101).
  - (d) 1988 North American Vertical Datum should be used.
  - (d) The following note shall be placed on the construction plat in accordance with TCA 13-3-412 if the proposed subdivision is located in whole or in part within one thousand (1,000) feet of any portion of the outside boundary of any land on which is constructed or operated a sport shooting range:

"This property is located in the vicinity of an established sport shooting range. It can be anticipated that customary uses and activities at this shooting range will be conducted now and in the future. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience that may result from these uses and activities."

#### J. Required Certificates on Construction Drawings

The following appropriate certifications with text box and required signatures shall be affixed to the cover sheet of all construction drawing plans in the order listed below, based on the jurisdiction covering the area to be subdivided:

# (1) Ownership and Quality of Construction

#### CERTIFICATE OF QUALITY OF CONSTRUCTION

I hereby certify that I will construct the improvements shown hereon and guarantee that they meet the requirements and specifications set forth in the Subdivision and Land Development Regulations and subject to the review and approval of the Three Way Municipal Regional Planning Commission and Subdivision Review Agencies.

Date

Owner/Developer

# (2) Engineering Certification

#### CERTIFICATE OF ACCURACY OF DESIGN

I hereby certify that I am a registered engineer, licensed to practice engineering under the laws of the State of Tennessee. I further certify that the plan and accompanying drawings, documents, and statements conform to the standards of good engineering practice, and to all applicable provisions of the Subdivision and Land Development Regulations, except as has been itemized and described in a report files with the Three Way Municipal Regional Planning Commission, if applicable.

Date

Registered Engineer Tennessee Certificate No. \_

# (3) **Public Water Systems**

#### CERTIFICATE OF APPROVAL OF WATER SYSTEMS

I hereby concur that the water utility plans depicted within these construction drawings meet the minimum requirements of the Jackson Energy Authority and are hereby recommended for approval for construction as shown herein.

Date

Jackson Energy Authority

# (4) Sanitary Sewerage Systems

#### CERTIFICATE OF APPROVAL OF SANITARY SEWERAGE SYSTEMS

I hereby concur that the sanitary sewerage utility plans depicted within these construction drawings meet the minimum requirements of the Jackson Energy Authority and are hereby recommended for approval for construction as shown herein.

Date

Jackson Energy Authority

#### (5) **Streets and Storm Drainage**

CERTIFICATE OF APPROVAL OF STREETS AND STORM DRAINAGE			
I hereby concur that the street construction ar construction drawings meet the minimum require recommended for approval for construction as show	ments of the City of Three Way and are hereby		
Date	City of Three Way Engineering Department		

# (6) **Construction Drawing Approval**

#### CERTIFICATE OF CONSTRUCTION DRAWING APPROVAL

I hereby certify that these construction drawings have been reviewed by all applicable review agencies and has been approved by the Three Way Municipal Regional Planning Commission and therefore are hereby approved for construction as shown herein.

Date

Three Way Municipal Regional Planning Commission

#### K. Required Construction Notes on Construction Drawings

Construction notes for the Jackson Energy Authority for General and Erosion Control Notes shall be included as text notes on the cover sheet, or as a separate sheet number 2 after the cover sheet in all construction drawing plans and shall include all notes contained in Appendix B.

#### L. Review and Approval of Final Subdivision Plat

Upon completion of required subdivision improvements, the developer shall submit a final subdivision plat reflecting all modifications necessitated by the approved construction drawings. The final plat shall contain all information required by these Subdivision and Land Development Regulations.

# (a) <u>Conformance with Approved Preliminary Plat</u>

The final plat shall be in substantial compliance with the approved preliminary plat for the property. It is understood that the final location and alignment of required public improvements, as shown in the approved construction drawings, may result in minor alterations to the subdivision layout shown on the preliminary plat.

#### (b) <u>Submission of Final Subdivision Plat</u>

An application, application fee, and fee for review of a Final Plat shall be filed with the Planning staff. All Final Plat applications shall be complete and include the following:

- (a) A completed application form for final plat approval.
- (b) At least three (3) full-size copies of the proposed final plat.
- (c) One (1) Portable Document Format (PDF) file of the proposed final plat.
- (d) One digital AutoCAD copy of the proposed final plat rotated to the required State Plane Coordinates and containing the appropriate layers as depicted in Appendix C.

(e) The application and review fee required for filing the final plat.

# (c) <u>Referral of Application to Review Agencies</u>

Upon acceptance of a complete application, the Planning Staff shall forward the plat and related information to the following review agencies:

- (1) Engineering Staff
- (2) Planning Staff
- (3) Jackson Energy Authority Engineering Staff

The applicant shall directly submit the plat and related information to the following review agencies as appropriate:

- (4) Southwest Electric Membership Cooperative, if applicable
- (5) Madison County Health Department, if applicable
- (6) Tennessee Department of Transportation, when such application affects a road to be maintained by the State of Tennessee
- (7) Any other Federal, State, or Local Agency that may have cause to review the application

# (d) <u>Detailed Staff Review of Application</u>

The Planning Staff shall coordinate the review by referral agencies and compile their comments. The planning staff shall report in writing those corrections or additions deemed necessary by him and other officials or agencies as soon as the comments are available.

#### (e) <u>Review Agency Action on Final Plat</u>

Upon submittal of a finalized and complete final plat, the Review Agencies shall act to recommend approval or denial of the plat. If the plat is disapproved, the Planning Staff shall notify the applicant in writing that the plat is disapproved and specify the deficiencies in the final plat. If a Review Agency recommends denial of a final plat, the applicant may resubmit a revised final plat to the Planning Staff that modifies and corrects any deficiencies along with a resubmittal review fee.

#### (f) <u>Planning Commission Review and Action</u>

Upon an official recommendation of the final plat by all Review Agencies, the final plat shall be submitted to the Planning Commission for final review and approval.

Pursuant to *Tennessee Code Annotated* 13-4-304, the Planning Commission shall act to approve or disapprove the final plat located within the corporate limits of Three Way, Tennessee within thirty-five (35) days from acceptance of the plat application for review. Failure of the Commission to act on the final plat within the required 35-day period shall result in the immediate approval of the proposed final plat.

Pursuant to *Tennessee Code Annotated* 13-3-404, the Planning Commission shall act to approve or disapprove the final plat located within the Three Way Planning Region within thirty-five (35) days from acceptance of the plat application for review. Failure of the Commission to act on the final plat within the required 35-day period shall result in the immediate approval of the proposed final plat.

# (g) Effect of Approval on Successors and Assigns

Final plat approval, along with any conditions, or restrictions thereon, are transferable and apply to a new owner of the same property subject to the approved plat pursuant to the terms and conditions of these Regulations.

#### M. Recording of Final Subdivision Plat

When all conditions of approval have been met including all required certifications and signatures and the posting of any required performance bonds, the Secretary of the Planning Commission shall sign the plat on behalf of the Planning Commission. The developer/applicant shall submit to the Planning Staff fourteen (14) copies of the approved and signed plat for subdivisions located within the corporate limits of the City of Three Way for distribution to necessary public agencies and review agencies. The developer/applicant shall submit to the Planning Staff sixteen (16) copies of the approved and signed plat for subdivisions located outside the corporate limits of the City of Three Way. The developer/applicant shall also be responsible for any recording and/or reproduction fees.

#### N. Required Contents of Final Subdivision Plats

All final plats shall provide all the facts necessary to show compliance with these Subdivision and Land Development Regulations and shall meet the Standards of Practice, Rules of the Tennessee State Board of Examiners for Land Surveyors Chapter 0820-3 or as amended. The Planning Staff shall have the authority to waive certain submittal requirements for plats, if it is determined such information is not necessary for the review and approval of the plat and that not providing the information will in no way affect any public improvements, adversely affect adjoining properties, or conflict with any other requirements of the Zoning Ordinance or the Subdivisions and Land Development Regulations. Such waivers must be approved prior to submission of the plat. Unless a waiver is approved, as authorized above, all applications for final plat approval shall be accompanied by the following information:

(1) General Information

- (a) Name of the subdivision, which shall match the name from the Preliminary Plat and Construction Drawings.
- (b) Names and addresses of the owner(s) of record with deed reference.
- (c) Names, address, signature and registration of professionals preparing the plat, who shall be a registered land surveyor licensed in the State of Tennessee.
- (d) Names of any holders of easements or liens affecting the plat.
- (e) Names and addresses of all adjoining property owner(s), along with deed references of each and identify any adjoining subdivisions with plat book reference.
- (f) Date plat was drawn and of any revision.
- (g) General location map of sufficient detail to adequately locate property.
- (h) Existing zoning of the subject property.
- (i) Boundary survey with an error of closure within the limit of one in ten thousand, or a Category I survey related to the Tennessee State Plane Coordinate System NAD 83.
- (j) Street addresses approved by the E-911 Administrative Office.
- (k) Tax Map and parcel number of the land being subdivided.
- (I) Any deed restrictions, protective covenants, ingress/egress maintenance, detention basin maintenance, fence maintenance, common area maintenance agreements that affect the lots within the subdivision, along with the Trust Deed Book and Page references for those recorded agreements.

(m)North Point and graphic scale.

- (2) Project Tabulations
  - (a) Total area within the final plat, to the nearest one-one hundredth of an acre.
  - (b) Proposed lots with bearings, dimensions, lot numbers, and lot area.
  - (c) The names and dimensions of proposed streets and easements.
  - (d) Land area in common space and common open space as a percentage of the subdivision.

- (e) Data for all curves along street frontages showing: delta, radius, arc length, tangent, chord, and chord bearing.
- (f) Setback and yard requirements.
- (g) A table denoting the street length in feet, the pavement width in feet, the pavement area in square feet, the right-of-way width in feet, the curb and gutter length in linear feet, and the sidewalk area in square feet.
- (3) Existing Site Conditions
  - (a) Map survey of the boundary with all existing property lines.
  - (b) Location and full width of existing rights-of-way.
  - (c) Location and explanation of existing easements, public or private which are upon the property, including the deed book and page, or instrument number reference.
  - (d) Location and extent of all areas subject to flooding as defined by the most recent Federal Emergency Agency (FEMA) Flood Insurance Rate Maps (FIRM) for Madison County, Tennessee, including a note with FEMA FIRM panel number reference listed.
  - (e) Existing zoning of all adjacent property.
  - (f) Location, elevation, and description of all survey control monuments or equivalent, lot corners, and benchmarks.
  - (g) Accurate location of Three Way corporate limits, if within the subdivision.
  - (h) Identification and location of any grave, object, or structure marking a place of burial.
- (4) Graphic Requirements
  - (a) All sheets shall be clearly and legibly drawn at a scale not less than 100 feet to the inch, with north arrow, on numbered sheets 18 x 24 inches in size, which shall clearly be marked "Final Plat". If more than one sheet is necessary, a match line and corresponding sheet numbering system shall be provided.
  - (b) Location and right-of-way width of all proposed streets, including approved street names.
  - (c) The title block shall include the phase or section if applicable, and shall state if a revision.

- (d) Location and size of existing and proposed public open spaces within and adjacent to the subdivision.
- (e) Locations and size of all parcels of land and easements proposed to be dedicated for public use.
- (f) The location and width of any required zoning buffer areas, the plat shall include the type and location of the buffer yard proposed.
- (g) All dimensions of all lots and parcels shown in feet, and decimals of a foot to the nearest one-one hundredth of a foot; all bearings in degrees, minutes and the nearest second.
- (h) All easements located by bearings and dimensions or by coordinates.
- (i) All survey control monuments with coordinates.
- (5) Other Information
  - (a) Any other information that may be necessary for the full and proper recordation of the final plat.
  - (b) North point of orientation shall be with the grid of the Tennessee Coordinate System of 1983 (TCA 66-6-101).
  - (c) 1988 North American Vertical Datum should be used.
  - (d) The plat shall be based upon a Category I survey and comply with the accuracy required by the Standards of Practice for Land Surveyors in Tennessee.
  - (e) A digital AutoCAD file image of the proposed subdivision rotated to State Plane Coordinates system.
  - (f) The following note shall be placed on the final plat in accordance with TCA 13-3-412 if the proposed subdivision is located in whole or in part within one thousand (1,000) feet of any portion of the outside boundary of any land on which is constructed or operated a sport shooting range:

"This property is located in the vicinity of an established sport shooting range. It can be anticipated that customary uses and activities at this shooting range will be conducted now and in the future. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience that may result from these uses and activities."

#### O. Required Certificates on Final Plats

The following appropriate certifications with text box and required signatures shall be affixed to the final plat in the order listed below, based on the jurisdiction covering the area to be subdivided:

## (1) **Ownership and Dedication of Improvements**

#### CERTIFICATE OF OWNERSHIP AND DEDICATION

I (We) hereby certify that I am (we are) the owner(s) of the property shown and described hereon as evidenced in Deed Book \_\_\_\_\_ Page \_\_\_\_, in the Register's Office of Madison County, Tennessee, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, and that this plat constitutes offers of irrevocable dedication for all public roads, utilities, and other facilities shown hereon to public use or to private use as noted hereon, as required by the requirements and specifications set forth in the Subdivision and Land Development Regulations of the Three Way Municipal Regional Planning Commission.

Date

Owner/Developer

Owner/Developer

#### (2) Acknowledgement of Owner(s) Signature

ACKNOWLEDGEMENT OF OWNER(s) SIGNATURE		
State of Tennessee County of Madison		
Personally appeared before me, the undersigned, a Notary Public, in and for the State and County mentioned,, with whom I am personally acquainted, and who, upon oath, acknowledged such person to be the owner/developer, the within named bargainer, and that he/she as such owner/developer, executed the foregoing instrument for the purpose therein contained, by signing his/her name as owner/developer. Witness my hand at office, this day of,		
Notary Public		
My Commission Expires:		

## (3) Surveyor's Certification

#### CERTIFICATE OF ACCURACY OF SURVEY

I hereby certify by placing my seal and signature on this plat that it was prepared in accordance with the specifications and requirements of the Three Way Municipal Regional Planning Commission, and that the accuracy of the survey upon which it is based is in accordance with the requirements of the Standards of Practice as contained in the Rules of the Tennessee State Board of Examiners for Land Surveyors for a Category I survey. I further certify that all monuments have been placed as indicated.

Date

Registered Surveyor Tennessee Certificate No.

# (4) **Public Water Systems**

#### CERTIFICATE OF APPROVAL OF WATER SYSTEMS

I hereby concur that the water system has been installed or proposed to be installed meeting the minimum requirements of the Jackson Energy Authority and hereby recommend approval of the final plat.

Date

Jackson Energy Authority

# (5) Sanitary Sewerage Systems

#### CERTIFICATE OF APPROVAL OF SANITARY SEWERAGE SYSTEMS

I hereby concur that the sanitary sewerage system has been installed or proposed to be installed meeting the minimum requirements of the Jackson Energy Authority and hereby recommend approval of the final plat.

Date

Jackson Energy Authority

# (6) **Suitability of Soil for Septic Tanks** (fully installed system)

#### CERTIFICATE OF APPROVAL OF SUITABILITY OF SOIL FOR SEPTIC TANKS

I hereby concur that this soil is generally suitable for subsurface sewage disposal system and hereby recommend approval of the final plat. All lots are subject to Sections 68-13-401 thru 68-13-413 of the *Tennessee Code Annotated*, and the regulations promulgated thereto. This concurrance not to be construed as a septic tank installation permit. Septic tank installation requires a site plan and a permit approved by the Madison County Health Department. After the suitability of any area to be used for subsurface sewage disposal has been approved, no change shall be made to this area unless the Health Department is notified and a reevaluation of the area's suitability is made prior to the initiation of construction.

Date

Jackson Madison County Health Department

# (7) **Suitability of Soil for Septic Tanks** (existing system)

#### CERTIFICATE OF APPROVAL OF SUITABILITY OF SOIL FOR SEPTIC TANKS

Lot # \_\_\_\_\_ contains an existing house. Soil suitability, type of septic system, installation and/or past or future system performance is unknown. The Health Department does not warrant soil suitability, installation, or performance of this system.

Lot # \_\_\_\_\_\_ is generally suitable for subsurface sewage disposal system and I hereby recommend approval of the final plat. All lots are subject to Sections 68-13-401 thru 68-13-413 of the *Tennessee Code Annotated*, and the regulations promulgated thereto. This concurrance is not to be construed as a septic tank installation permit. Septic tank installation requires a site plan and a permit approved by the Madison County Health Department. After the suitability of any area to be used for subsurface sewage disposal has been approved, no change shall be made to this area unless the Health Department is notified and a reevaluation of the area's suitability is made prior to the initiation of construction.

Date

Jackson Madison County Health Department

# (8) Street Names and Addresses

#### CERTIFICATE OF APPROVAL OF STREET NAMES AND ADDRESSES

I hereby concur that the street names and addresses depicted on this final plat have been reviewed and approved by the E911 Administrative Office.

Date

E-911 Administrative Office

(9) **Streets and Storm Drainage** (fully installed)

#### CERTIFICATE OF APPROVAL OF STREETS AND STORM DRAINAGE

I hereby concur that the street construction and storm drainage improvements appear to have been installed in an acceptable manner, and checked by visual inspection, and appear to conform to the approved construction drawings and meet the minimum requirements set forth within the Subdivision and Land Development Regulations. The street and associated drainage improvements and their rights-of-way shall be accepted by the Governing Authority in accordance with the existing policy of the Governing Authority relative to street acceptance.

Date

City of Three Way Engineering Department

(10) **Streets and Storm Drainage** (performance bond posted)

## CERTIFICATE OF APPROVAL OF STREETS AND STORM DRAINAGE

I hereby concur that a construction bond in the amount of \$\_\_\_\_\_\_ has been posted to ensure completion and quality of all required improvements. Following satisfactory completion of all improvements contained within the approved construction drawings, the street construction and associated storm drainage improvements and their rights-of-way shall be accepted by the Governing Authority in accordance with the existing policy of the Governing Authority relative to street acceptance.

Date

Three Way Municipal Regional Planning Commission

Date

City of Three Way Engineering Department

# (11) **Streets and Storm Drainage** (private streets)

#### CERTIFICATE OF RECOGNITION OF PRIVATE STREETS

I hereby recognize that the streets, drainage improvements, and/or rights-of-way depicted on this subdivision plat are private. These streets, drainage improvements, and rights-of-way shall remain private and not be accepted by the Governing Authority, and the future maintenance shall be the responsibility of the subdivision developer and/or future property owners or Home Owners Association in accord with the required maintenance agreement recorded in the office of the Register of Deeds for Madison County, Tennessee.

Date

Three Way Municipal Regional Planning Commission

Date

City of Three Way Engineering Department

## (12) **Streets and Storm Drainage** (existing street)

#### CERTIFICATE OF RECOGNITION OF EXISTING STREETS AND RIGHTS-OF-WAY

I hereby recognize that the streets and rights-of-way depicted on this subdivision plat are existing and does not involve any new construction.

Date

City of Three Way Engineering Department

## (13) **Final Plat Approval**

#### CERTIFICATE OF FINAL PLAT APPROVAL FOR RECORDING

I hereby certify that the final subdivision plat shown hereon has been reviewed by all applicable review agencies and has been approved by the Three Way Municipal Regional Planning Commission, with the exception of any variances and stipulations noted in the minutes of the Planning Commission and that this plat is hereby approved for recording in the office of the Register of Deeds for Madison County, Tennessee.

Date

Three Way Municipal Regional Planning Commission

#### P. Minor Subdivisions

The purpose of this section is to establish separate requirements for minor subdivision plats in order that they may be prepared and processed in less time than that required for major subdivision plats.

If the Planning Staff determines the proposed division constitutes a minor subdivision, the preliminary plat and construction plat requirements shall be considered waived. A final plat meeting the criteria set forth in these Subdivision and Land Development Regulations may be submitted and approved administratively by the Planning Staff and appropriate Review Agencies without submission to the Planning Commission.

A Minor Subdivision shall be defined as any subdivision of land resulting in no more than two (2) lots or divisions, and does not require the construction or installation of any public improvements to service the proposed subdivision. Any construction or installation of public improvements to accommodate the proposed subdivision shall require the submission of a preliminary plat application meeting the criteria set forth in these Subdivision and Land Development Regulations.

Any subdivision of land that creates a joint permanent easement, adds additional lots that will be served by an existing joint permanent easement, or extends a joint permanent easement shall not be considered a minor subdivision and shall be required to submit an application for preliminary plat review and approval meeting the criteria set forth in these Subdivision and Land Development Regulations.

All minor subdivisions requiring variances and/or submission of drainage plans shall be submitted to the Planning Commission for approval.

# END OF ARTICLE III

# Article IV | Land Suitability and Natural Features

# A. Land Physically Unsuitable for Subdivision

- 1. Land where flooding, sink holes, bad drainage, steep slopes, rock formations, and other such features, which may endanger health, life, or property, aggravate erosion, increase public funds for supply and maintenance services shall not be approved for subdivision.
- 2. Land that other public agencies have investigated and found in the best interest of the public not suitable for the type of platting and development proposed shall not be approved for subdivision, unless adequate methods are formulated by the developer for meeting the problems created by subdivision of such land. Such land within any plat shall be set aside for such uses as shall not produce unsatisfactory living conditions.

# B. Land Unsuitably Located for Subdivision

- 1. The Planning Commission shall not approve what it considers to be scattered or premature subdivision of land, which would endanger health, safety, or property, because of lack of, or adverse effect upon water supply, schools, proper drainage, good transportation, or other public services, or which would necessitate an excessive expenditure of public funds for the supply and maintenance of such services.
- 2. Land unsuitable for subdividing is also that located in close proximity to potentially hazardous commercial and/or industrial operations that may endanger health, life, or property of the residents of the proposed subdivision.

# C. Preservation of Natural Features

The developer shall, wherever possible, attempt to preserve all natural features which add value to residential developments and to the community as a whole, such as, large trees or groves of trees, water courses and falls, historic spots, vistas, and similar irreplaceable assets.

#### D. Special Requirements for Floodable Areas

The purpose of this section is to set standards for determining whether subdivision proposals will be reasonably safe from flooding.

For the purpose of these Regulations, land subject to flooding shall be defined as those areas within the Three Way Planning Region shown on the effective FEMA FIRM as either a designated floodway or floodplain, and areas along all other streams, ditches, and water courses not so depicted on the FEMA FIRM within a distance equal to two times the width of

the stream, ditch, or water course at the top of the bank, or 25 feet each side of the top of the bank, whichever is greater, of the stream, ditch or water course bank.

- A. <u>Regulations for Subdivisions Containing Land Subject to Flooding</u>
  - (a) All subdivision proposals shall be consistent with the need to minimize flood damage.
  - (b) All wetlands, creeks, lakes, ponds, sinkholes, or other drainage areas shall be shown on the preliminary and final subdivision plat.
  - (c) All subdivision proposals shall have public utilities and facilities, such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage.
  - (d) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.
  - (e) Base flood elevation data shall be provided on affected lots for all subdivision proposals containing land subject to flooding.
  - (f) <u>Utilities</u>
    - 1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
    - 2. New and replacement sanitary sewerage systems shall be designed to minimize or eliminate infiltration.
    - 3. If on-site waste disposal septic systems are to be used, the area on each lot to be devoted to such use shall be elevated to avoid impairment to them or contamination from them during flooding.
    - 4. A restriction shall be noted on the final plat requiring that all electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding, and shall state: "All mechanical equipment shall be situated above the established FEMA base flood elevation.
  - (g) <u>Fill</u>
    - 1. Land subject to flooding may be platted for residential use only if filled to such a height as will create an area reasonably secure from flooding based on data submitted by the subdivider and prepared by a registered licensed engineer, provided such use of fill does not endanger health, life, or property or restrict the flow of water or

increase flood heights at the property being subdivided or any other property. Lots on fill will not usually be approved for septic tank drain fields. In order to be considered for development, such lots must be served by a public sewer system.

- 2. No fill shall be placed in the floodway of the stream and if undetermined no closer than 25 feet from the top of the bank of any stream, ditch, or water course unless the subdivider demonstrates that a lesser distance is adequate based on the watershed area, the probable runoff, and other topographic and hydraulic data prepared by a registered licensed engineer.
- 3. All bridges, culverts, and other drainage openings shall be designed so as not to restrict the flow of water and unduly increase flood heights upstream.

#### END OF ARTICLE IV

# Article V | Recreational Facilities and Open Space

# A. General

All major residential subdivision developments consisting of one hundred (100) lots or more shall provide recreational or open space areas for the purpose of providing adequate passive recreational facilities to serve the residents of the immediately surrounding neighborhood within the proposed development. The term major residential subdivision development as used in this section refers to the entire project developed on a single tract or contiguous multiple tracts under common ownership, regardless of whether the development is constructed in phases or stages. All other developments shall be considered minor residential subdivision developments consisting of less than one hundred (100) lots and these shall be exempt from the provisions of this section.

## B. Useable Open Space

- 1. All major residential subdivision developments consisting of one hundred (100) lots or more shall be developed so that at least seven percent (7%) of the total development remains permanently as useable open space. Such open space shall be as centrally located as possible and easily accessible so that it can be conveniently and safely reached and used by those persons in the surrounding neighborhood it is designed to serve, and shall be located on land that is relatively flat, dry, and capable of serving the purpose intended by this article.
- 2. For the purpose of this section, useable open space shall mean an area that:
  - a) is not encumbered with any substantial building
  - b) is not devoted to use as a roadway, or parking area
  - c) is left (as of the date development began) in its natural or undisturbed state if wooded, except for the cutting of trails for walking or jogging, or, if not wooded at the time of development, is landscaped for ball fields, picnic areas, or similar facilities, or is properly vegetated and landscaped with the objective of creating a wooded area or other area that is consistent with the objective of this article
  - d) is capable of being used and enjoyed for purposes of informal and unstructured recreation and relaxation
  - e) is legally and practically accessible to the residents of the development out of which the open space is required
  - f) is devoted to detention/retention, provided, however, that such detention/retention area is designed to be a feature of the subdivision
  - g) consists of land that lies within a FEMA designated floodplain or floodway

# C. Ownership and Maintenance of Recreational Areas and Required Open Space

Recreational facilities and useable open space required to be provided by the developer in accordance with this article shall not be dedicated to the public but shall remain under the ownership and control of the developer (or his successor) or a homeowners association or similar organization when documents are provided to the Commission that assures the existence and financial capacity of the responsible entity for the perpetual maintenance and upkeep of these areas.

# D. Dedication of Open Space

If any portion of an area proposed for subdivision lies within an area designated on the officially adopted recreation master plan as a neighborhood park or part of the greenbelt system or bikeway system, the area so designated shall be included as part of the area set aside to satisfy the open space requirement and the improvements installed by the developer, and this area shall then be dedicated to the public use.

# **END ARTICLE V**

# Article VI | Minimum Design Standards

# A. Conformance to Plans and Standards Required

Land subdivision design is a compromise among competing and often conflicting objectives. Land subdivision is far more than a means of marketing land; it is primarily the first step in the process of building a community. Once land has been divided into lots, streets established, utilities installed, and buildings constructed, correction of defects is costly and difficult.

Moreover, the development pattern is permanently ingrained upon the community and unlikely to be changed. Ultimately, subdivided land becomes a public responsibility requiring the maintenance of improvements and the provision of public services. Additionally, for the sake of future owners and the community, subdivided land should not only be presently marketable, but should remain competitive with future developments, thereby presenting a stable and liquid investment. Therefore, the interests of the public, the developer, and future owners are served by adherence to sound concepts and standards of design. To achieve the desired objectives, all subdivisions within the City of Three Way must conform to the following basic design concepts:

# 1. External Factors

Subdivision design must provide for external factors of community wide concern, including the proper extension of major streets, extension of utilities, preservation of major drainage channels and related flood lands, and the reservation of needed school and park sites. Additional external factors to be considered include proximity of local, community, and regional shopping centers to places of employment, educational, and recreational facilities, and public transportation.

# 2. Land Use

Subdivision design must be related to proposed and existing land uses. Layout of a subdivision is inseparable from the use to which the land is to be used. Moreover, adjacent land use patterns must be considered. Some uses, such as parks, certain institutional uses, and bodies of surface water, may be used in the design to create value. Other uses, such as railroads, overhead power lines and associated easements, poorly subdivided lands, and unsightly strip commercial developments, may require special design techniques to minimize their depreciatory effect on property values.

#### 3. <u>Natural Environment</u>

Subdivision design must give due consideration to the natural environment. Areas of natural beauty, such as fine stands of trees and prominent terrain, should be conserved by design. Low areas subject to flooding or areas of unsuitable soil or ground water condition should not be put to residential use.

## 4. <u>Internal Details</u>

Subdivision design must give attention to internal design details, including the proper layout of the streets, utilities needed, open spaces, and adjustment of the design to topography and soil capabilities of the land. A major aspect of internal detailing is careful attention to drainage, and provision for future up-stream drainage.

#### B. Street Design

## A. <u>General Requirements and Standards of Design</u>

# 1. Arrangement

The arrangement of streets in the subdivision shall provide for the continuation of principal streets from adjoining subdivisions, and for proper projection of principal streets into adjoining properties, which are not yet subdivided. The continuation of principal streets is necessary for the adequate movement of traffic and for the construction or extension of utilities and public services, such as sewer, water, and drainage facilities. Local streets shall be laid out so that their use by through traffic will be discouraged. Where, in the opinion of the Planning Commission, topographic or other conditions make such continuance undesirable or impracticable, the above conditions may be modified. A curvilinear street layout will be encouraged by the Planning Commission.

## 2. <u>Conformity to the Major Road and Street Plan</u>

The location and width of all streets and roads shall conform to the Official Major Road and Street Plan. The latest Major Road and Street Plan is on file in the Office of the Madison County Register of Deeds and a copy of said Plan is included as Appendix A to these Subdivision and Land Development Regulations.

Where a street designated by the Major Road and Street Plan as a "Proposed" street crosses the proposed site of a subdivision, right-of-way sufficient to meet the design standards for the functional classification of said street shall be dedicated to the public and shown on the plat.

Subdivisions that adjoin existing streets depicted on the Major Road and Street Plan shall dedicate additional right-of-way to meet the minimum street width for the functional classification of said street as depicted on the Plan. The entire right-of-way width shall be dedicated where any part of a proposed subdivision is located on both sides of said street. When the proposed subdivision is located on only one side of an existing street, one-half (1/2) of the necessary right-of-way, measured from the centerline of the existing roadway, shall be dedicated to the public and shown on the plat. However, in some specific cases involving realignments of curves, the necessary right-of-way dedication shall encompass the proposed improvement to the curve. Additional right-of-way shall also be dedicated at major intersections, measured as a straight line from end of radius to end of radius, to allow room for future signal pole and equipment locations.

# 3. <u>Relation to Adjoining Street System</u>

The proposed street system shall extend any adjoining existing streets at the same or greater width, but in no case, less than the required minimum width.

## 4. Points of Access

A minimum of two (2) points of access shall be required for all subdivisions containing more than fifty (50).

This provision may be waived if and when the Planning Commission determines that the physical characteristics of the site of the proposed subdivision or the nature of the streets adjacent to it make the provision of two or more access points impractical, or in the case of private and/or gated developments.

# 5. <u>Linkage of Subdivisions</u>

Streets in proposed subdivisions shall be linked to existing street right-of-way from adjoining subdivisions where such street stubs have been provided for the future extension of streets, except in the case of private and/or gated developments.

# 6. <u>Relation to Topography</u>

The street plan of a proposed subdivision shall bear a logical relationship to the topography of the property, and all streets shall be arranged so as to obtain as many of the building sites as possible at or above the grade of the streets. Grades of streets shall conform as closely as practicable to the original topography.

# 7. Flood Prevention

Streets that will be subject to inundation of flooding shall not be approved. All streets must be located at elevations that will make them reasonably secure from flooding in order that portions of the subdivision will not be isolated by flooding. Where flood conditions are anticipated, profiles and elevations of streets will be required in order to determine the advisability of permitting the proposed street layout.

#### 8. <u>Restriction of Access</u>

When a tract fronts on an arterial street or highway, the Planning Commission may require such lots to be provided with frontage on a marginal access street.

# 9. <u>Reserve Strips</u>

Every lot in subdivided property shall be served from an approved street or travel easement. There shall be no reserve strips prohibiting direct access to streets or easements, except where the control of such strips is definitely placed within the community under conditions approved by the Planning Commission.

## C. Private Streets

All private streets shall conform to the same standards of design for public streets, based on the functional classification of the proposed street, contained within these Subdivision and Land Development Regulations. These include, but are not limited to, all requirements for street right-of-way widths, minimum surface widths, street grades, curves, intersections, street names, curbs, stormwater drainage, streetlights, if installed, and street construction procedures and specifications.

When private streets are permitted by the Planning Commission, the developer shall provide to the Planning Staff provisions for the perpetual maintenance of the private street and ornamental street signs and posts. Said provisions shall be referenced on the final plat and recorded in the Madison County, Tennessee Register of Deeds Office.

After review and approval by the Planning Commission, private streets may be gated provided that the gate is designed, installed and maintained pursuant to *Tennessee Code Annotated* 13-8-101 et seq. to allow for rapid, reliable, and mutual aid emergency access, and further that the entrance is designed to accommodate at least two car lengths outside the adjoining public street travel lane, and provides an adequate turning radius for vehicles not granted access.

The Planning Commission review shall be based on plans and elevations submitted by the developer or owner detailing the change accompanied by to scale drawings of the proposed gate entrance design and depiction of the gate operating mechanism.

After meeting the provisions of this section and prior to the installation or replacement of a security gate or barrier at a gated facility or community, the developer or owner shall obtain a security gate or barrier permit from the City Planning Department, and the security gate or barrier shall be inspected by the City Building Department and City Fire Marshal.

All security gates or barriers shall be equipped with a radio operated receiver/controller capable of receiving signals from a police department, sheriff's department (if the gated facility or community is in the county), fire department, utility and emergency medical services' radio transceivers serving the gated facility or community that allow emergency responders and other necessary on-duty employees to open the security gate or barrier by use of the equipment. All security gates or barriers operating mechanisms shall be rapid, reliable, and provide mutual aid access. The equipment shall be furnished, installed, and maintained by the gated facility or community that is served by the equipment.

The maintenance and upkeep of any security gate or barrier shall be the sole responsibility of the developer, owner, or duly incorporated and active association having jurisdiction over the

gated facility or community. Inoperable security gates or barriers shall be repaired immediately. Inoperative gates shall be locked in the open position until repairs are made. Abandoned gates shall be permanently locked in the open position.

The party or parties controlling the operation and maintenance of the security gate or barrier shall be liable for any damages caused by improper operation of the security gate or barrier.

## D. Street Names

Proposed streets that are obviously in alignment with existing and named streets shall bear the names of those existing streets. In no case shall the name of a proposed street duplicate an existing street name. Street names shall be coordinated through the Planning Commission with the E-911 Administrative Office to avoid duplication.

## E. Street Signs

All street name and traffic control signage shall be installed at developer(s) expense immediately upon completion of the street and prior to the opening of the street for public use. Street name and traffic control signs shall be designed and placed in accordance with the latest edition of the <u>Manual on Uniform Traffic Control Devices</u> (MUTCD) and shall be certified by the supplier that all specifications have been met concerning city approved sign standards.

The accepted city street sign is composed of a galvanized U-channel steel post and associated sign face meeting the requirements of this section. All sign posts shall have a minimum weight of 2lbs/ft with the total post assembly including brackets not exceeding a weight of seventy-five (75) pounds for ornamental posts. All signs shall be attached to NCHRP 350 compliant posts with appropriate hardware and shall facilitate future removal and replacement.

Any other sign posts chosen by the developer will be considered ornamental and the post vertical and horizontal placement, sign face material, and total post assembly weight shall meet standard city specifications.

To reduce risk of ornamental sign post decay over time, all ornamental sign posts and installation hardware shall be coated with a non-corrosive black antique finish.

The maintenance for all ornamental signs shall be the responsibility of the developer. A maintenance agreement may be recorded assigning the future maintenance to a Home Owners Association or like agency. If, in the event the said agency responsible for maintenance ceases to exist, and the posts or signs need maintenance or are damaged, the City will replace damaged posts or signs with the city specified street sign design, and the damaged ornamental post or signs shall be considered the property of the City of Three Way or Madison County. Further, in emergency situations when a post or sign needs immediate replacing and the agency responsible for maintenance fails to perform the necessary maintenance, the city or county shall replace the post or sign with the city or county specified street sign design, and the agency.

The installation of all signs must also adhere to the following minimum installation criteria:

- A. <u>Vertical Requirements</u>
  - 1. The signpost must be placed so that the height of the bottom of the primary sign face will be a minimum of seven (7) feet and no more than eight (8) feet above the level of the nearest edge of pavement.
- B. <u>Horizontal Requirements</u>
  - 1. The signpost must be placed so that the outside edge of the sign face will be a minimum of two (2) feet from the nearest face of curb or edge of pavement.
  - 2. All Stop signs and Yield signs should be placed at least twelve (12) feet from the curb line of the intersecting street, unless depicted otherwise on the traffic signage plan within the approved construction drawings.
- C. Sign Face
  - 1. All sign faces shall meet the minimum standards of the latest edition of the Manual on Uniform Traffic Control Devices and Standard Highway Signs. Street sign sizes shall be as designated for "Conventional Road" unless a larger size is specifically indicated on the traffic signage plan within the approved construction drawings.
  - 2. All sign faces, including street name signs, shall be retro-reflective and shall be Prismatic grade.
  - 3. Sign blank material shall be an extruded aluminum blade with a minimum web thickness of 0.100 inches, and a top and bottom extrusions shall be a minimum thickness of 0.250 inches (See Sign Blank Illustration).
  - 4. Street name signs shall have a maximum height of nine (9) inches and shall be of eighteen (18) inch minimum length, but no more than sixty (60) inches in length, and shall provide a minimum two (2) inch space beyond each end of the legend.
  - 5. Street name sign color shall be a green background on both sides of the sign blank with a white legend.
  - 6. Street name sign letter style shall be a C series Highway Font, and the letter size shall be six (6) inches in height for all upper and lower case letters in the street name, and three (3) inches in height for the street suffix, i.e., ST, AVE, BLVD, etc. All suffix abbreviations shall conform to Section 1A.14 of the MUTCD. The space between all letters in the street name shall not be reduced from the standard defined spacing of the C series Highway Font.

- 7. Hanging/Overhead Signs shall have a letter size of twelve (12) inches in height for all upper and lower case letters with a 7/8 inch space between all letters in the street name.
- 8. Street name signs for private streets must meet the same design criteria for public streets, however, all private street name signs shall be required to have a suffix of PVT that shall be three (3) inches in height.

# D. Ornamental Sign Face

- 1. All sign faces shall meet the minimum standards of the latest edition of the Manual on Uniform Traffic Control Devices and Standard Highway Signs. Street sign sizes shall be as designated for "Conventional Road" unless a larger size is specifically indicated on the traffic signage plan within the approved construction drawings.
- 2. All sign faces, including street name signs, shall be retro-reflective and shall be Prismatic grade.
- 3. Sign blank material shall be aluminum with a minimum thickness of 0.100 inches, and include a one (1) inch radius at all sign blank corners.
- 4. Street name signs shall have a maximum height of nine (9) inches and shall be of eighteen (18) inch minimum length, but no more than sixty (60) inches in length, and shall provide a minimum two (2) inch space beyond each end of the legend.
- 5. Street name sign color shall be a white background on both sides of the sign blank with a black legend, and include a 3/8 inch black border offset 3/8 inches from the edge around the sign blank (See Ornamental Sign Illustration).
- 6. Street name sign letter style shall be a C series Highway Font, and the letter size shall be six (6) inches in height for all upper and lower case letters in the street name, and three (3) inches in height for the street suffix, i.e., ST, AVE, BLVD, etc. All suffix abbreviations shall conform to Section 1A.14 of the MUTCD. The space between all letters in the street name shall not be reduced from the standard defined spacing of the C series Highway Font.
- 7. Hanging/Overhead Signs shall have a letter size of twelve (12) inches in height for all upper and lower case letters with a 7/8 inch space between all letters in the street name.
- 8. Street name signs for private streets must meet the same design criteria for public streets, however, all private street name signs shall be required to have a suffix of PVT that shall be three (3) inches in height.

## F. Pavement Markings

Pavement markings shall be required on commercial local/minor, commercial sub-collector, all collector, and all arterial level streets. All pavement markings shall be installed at developer expense immediately upon completion of the street and prior to the opening of the street for public use. Pavement markings shall be designed and placed in accordance with the latest edition of the <u>Manual on Uniform Traffic Control Devices</u> (MUTCD). Should the street be allowed to open to traffic prior to the installation of the final surface paving, temporary pavement markings shall be installed by the developer to the same design and placement as the final markings.

All pavement marking material shall meet Tennessee Department of Transportation (TDOT) specifications. At a minimum all pavement markings installed on the final paving surface shall be thermoplastic material with retro-reflective glass beads, and all temporary markings shall be traffic marking paint with retro-reflective glass beads.

Pavement markings will not be required on residential local/minor or residential sub-collector level streets. However, pavement markings shall be required on all signalized intersection approaches regardless of street classification.

# G. Street Lighting

The developer shall coordinate with the Jackson Energy Authority (JEA) to service the subdivision with electric power and locate the probable location of street light poles. The number and arrangement of street lighting shall be based upon the number of travel lanes, lane width, curb cuts, degree of road curvature, sight distance, grade, on-street parking, and speed limit. All street lighting shall be designed to meet the City of Three Way minimum illumination level.

The entire cost of providing street lighting on all public streets will be at the city's expense, however, should the developer request lighting not typically specified by the city, the lighting will be considered ornamental and the additional maintenance fee, calculated based on the type of pole selected, shall be the responsibility of the developer, and shall be payable to the City of Three Way at final plat approval. Further, the City will not provide street lighting on private streets. If lights are to be installed at developer's expense, the lights shall be designed and installed to the same standard as public streetlights.

Should ornamental streetlights be chosen for a subdivision, the pole location, height, and illumination level shall meet standard city specifications.

## H. Street Classifications

The street and road system of the City of Three Way and its planning region shall have the following classifications:

# 1) Arterial Streets

Streets and highways that are used primarily for movement of fast or heavy traffic within and through the region, or provided for land access. These streets are usually shown on the Major Road and Street Plan and are generally State and Federal Highways.

# 2) <u>Collector Streets</u>

Streets that carry traffic from local streets to the arterial streets or highways. This usually includes the principal entrance street(s) or streets of major circulation of a residential development. Collector level streets may be classified as either collector or sub-collector level depending on their traffic volumes and their respective importance in the intercity street network.

All streets intended to serve as access for industrial developments and/or large scale commercial developments shall be classified as Collector Streets.

# 3) Local/Minor Streets

Streets designated to accommodate local traffic, the major portion of which originates along the street itself. The primary function of a local street is land access. Local streets may also be called minor residential or minor commercial streets. A cul-de-sac is a local/minor street intended to be a permanent dead-end with a paved turnaround designed so that it cannot be extended in the future. Connector and Loop Streets are usually intended to regulate the length of blocks.

# 4) <u>Alleys</u>

Streets used primarily for service access to the back and/or side of land otherwise on a public street.

#### I. Minimum Street Right-of-Way Widths

The minimum width of the street right-of-way, measured from lot line to lot line, for streets classified in the Major Road and Street Plan shall be provided in accordance with its designated functional classification in order to accommodate future road, signal, utility, sidewalk, and bikeway improvements. Additional right-of-way shall also be dedicated at major intersections, measured as a straight line from end of radius to end of radius, to allow room for future signal pole and equipment locations. Refer to the Street Cross Section Illustrations for a depiction of the right-of-way for each functional classification of street listed below.

There will be occasions when new roads are proposed which were not included in the Major Road and Street Plan. The Plan will be amended to include these new roads, their functional classifications, and right-of-way requirements. When roads are proposed that are not classified by the Major Road and Street Plan, right-of-way shall be provided based on the projected function and use of the road in accordance with the following:

- 1. Arterial The minimum right-of-way width for a four (4) lane arterial with a two way left turn lane shall be 98 feet. The minimum right-of-way width for a six (6) lane arterial with a two way left turn lane shall be 122 feet. A four (4) lane arterial with a center median shall have a right-of-way width of 104 feet, and a six (6) lane arterial with a center median shall have a right-of-way width of 128 feet.
- 2. **Collector** The minimum right-of-way width for a commercial collector shall be 70 feet. A residential collector level street shall have a right-of-way width of 65 feet.
- 3. **Sub-collector** The minimum right-of-way width for a commercial sub-collector shall be 55 feet. A residential sub-collector level street shall have a right-of-way width of 45 feet.
- 4. Local/Minor The minimum right-of-way for a commercial minor street shall be 45 feet. A residential minor street shall have a right-of-way width of 40 feet.

# J. Minimum Street Pavement Widths

There shall be a minimum street pavement surface width, measured from the edge of the gutter to the edge of the gutter for all subdivision streets. Refer to the Street Cross Section Illustrations for a depiction of the pavement width for each functional classification of street listed below:

- 1. Arterial The minimum pavement width for a four (4) lane arterial with a two way left turn lane and bike lanes shall be 68 feet. The minimum pavement width for a six (6) lane arterial with a two way left turn lane and bike lanes shall be 92 feet. An arterial with four (4) lanes, bike lanes, and an eighteen (18) foot wide center median shall have a minimum pavement width of 56 feet. An arterial with six (6) lanes, bike lanes, and an eighteen (18) have a minimum pavement width of 56 feet.
- Collector The minimum pavement width for a commercial collector level street with a twelve (12) foot wide center two way left turn lane and bike lanes shall be 42 feet. The minimum pavement width for a residential collector level street with a ten (10) foot wide center two way left turn lane and bike lanes shall be 38 feet.
- 3. **Sub-collector** The minimum pavement width for a commercial sub-collector shall be 36 feet. The minimum pavement width for a residential sub-collector level street shall be 26 feet.

4. Local/Minor – The minimum pavement width for a commercial minor street shall be 28 feet. The minimum pavement width for a residential minor street shall be 22 feet.

# K. Minimum Street Grades

The grades of subdivision streets and roads shall be as follows:

## 1) Minimum Grade

The minimum grade of any street shall not be less than one-half of one percent (0.5%).

## 2) Maximum Grade

- (a) **Arterial** The maximum grade of all arterials shall be six percent (6%).
- (b) **Collector** The maximum grade of all collectors shall be seven percent (7%).
- (c) **Sub-collector** The maximum grade of all sub-collectors shall be ten percent (10%).
- (d) **Local/Minor** The maximum grade of all local/minor level streets shall be ten percent (10%).

#### 3) Maximum Grades at Intersections

The maximum grade of any street approaching an intersection shall include no more than a two percent (2%) grade. The street approach shall be measured twenty-five (25) feet from the projected edge of asphalt line of the intersecting street. The maximum grade within any intersection area shall not exceed two percent (2%).

# 4) Changes in Grade

Every change in grade over 0.5% shall be connected by a vertical curve constructed so as to afford a minimum stopping sight distance of 200 feet for all local/minor and sub-collector level streets, a minimum stopping sight distance of 250 feet for all residential collectors, and a minimum stopping sight distance of 305 feet for all non-residential collectors, and a minimum stopping sight distance of 360 feet for all arterial level streets.

The sight distance shall be measured from the driver eye level, which is assumed to be three and one-half  $(3\frac{1}{2})$  feet above the pavement surface to an object two (2) feet above the pavement surface.

## L. Street Design Speeds

The geometric criteria applied to the design of a street are a function of the design speed defined for its functional classification. Therefore, the accepted minimum limits for horizontal curves, vertical curves, and tangents are also a function of design speed. In general, the following minimum design speeds will apply for streets within the City of Three Way and its Planning Region:

- 1. Arterial 45 mph
- 2. Collector (Commercial) 40 mph
- 3. Collector (Residential) 35 mph
- 4. Sub-collector 30 mph
- 5. Local/Minor 30 mph

These stated design speeds may be varied by the Planning Staff, after consultation with the Engineering Staff, when physical features such as topography or existing land use impact the location or configuration of a specific street.

## M. Street Horizontal Curves and Vertical Curves and Tangents

# 1) Horizontal Curves

Where the deflection angle of more than one (1) degree in the horizontal alignment of a street occurs, radii shall be introduced according to the following standards, assuming no superelevation, based on the AASHTO, <u>Geometric Design of Highway</u> <u>and Streets</u>, 2004 edition, or subsequent later editions:

- (a) Arterial The minimum allowable horizontal radius of curvature at the centerline of the proposed street right-of-way shall be not less than one thousand thirty-nine (1,039) feet. The addition of superelevation may adjust radii requirements. Any superelevation design shall be based on the AASHTO, <u>Geometric Design of Highways and Streets</u>, 2004 edition, or subsequent later editions.
- (b) **Collector** The minimum allowable horizontal radius of curvature at the centerline of a proposed commercial collector street right-of-way shall be not less than seven hundred sixty-two (762) feet. The minimum allowable horizontal radius of curvature at the centerline of a proposed residential collector street shall be not less than five hundred ten (510) feet. The addition of superelevation may adjust radii requirements. Any superelevation design shall be based on the AASHTO, <u>Geometric Design of Highways and Streets</u>, 2004 edition, or subsequent later editions.
- (c) Sub-collector The minimum horizontal radius of curvature at the centerline of the proposed street right-of-way shall be not less than three hundred thirty-three (333) feet.

(d) Local/Minor – Since a local/minor level street is typically composed of a not more than 1,200 foot long dead end street, and the average expected speed of a vehicle is below the 30 mph design speed, in such cases, the minimum horizontal radius of curvature at the centerline of the proposed street right-of-way shall be not less than one hundred fifty (150) feet.

Where a residential local/minor level street changes direction and the internal angle does not exceed 110 degrees, a modified street/cul-de-sac design may be accepted in lieu of the one hundred fifty (150) foot horizontal radius of curves.

In the event, the Planning Commission feels a proposed street design will promote speeds at or near 30 mph, a minimum horizontal radius of curvature at the centerline of the proposed street shall be not less than three hundred thirty-three (333) feet.

# 2) Vertical Curves

The street vertical design shall be in accordance with the current edition of the AASHTO, <u>Geometric Design of Highways and Streets</u>, and Article VI, Section K (4) <u>Changes in Grade</u> of these Subdivision and Land Development Regulations. The vertical design speed of a street shall be equal to or greater than the horizontal design speed of that street. The maximum grades shall not exceed those included in these Subdivision and Land Development Regulations.

# 3) Street Tangents

The minimum length of tangents between curves for non-superelevated streets shall be designed as follows:

# (a) Tangents for Reverse Curves

Reverse curves in a proposed street right-of-way shall be connected by tangents as follows:

- 1. Arterial one hundred seventy-five (175) feet.
- 2. Collector one hundred (100) feet.
- 3. Sub-collector one hundred (100) feet.
- 4. Local/Minor fifty (50) feet.

The tangent does not apply to superelevated curves in streets. In these instances, the tangent is dictated by the superelevation transition line.

# (b) Tangents for Broken Back Curves

A broken back curve with two (2) curves in the same direction with different origins shall be connected by tangents of not less than one hundred seventy-five (175) feet for all arterial level streets, one hundred (100) feet for all collector and

sub-collector level streets, and shall be connected to tangents of not less than fifty (50) feet for all local/minor level streets.

# (c) Intersection Approach Tangent

The minimum tangent length approaching an intersection for residential streets shall be fifty (50) feet from the projected edge of asphalt line. The minimum tangent length approaching a non-residential intersection shall be one hundred (100) feet from the projected edge of asphalt line.

## N. Street Intersection Design

# 1) Angle of Intersection

Intersecting streets shall be designed at a ninety (90) degree angle wherever possible. Where natural or manmade obstacles prevent a standard intersection, intersecting streets may have a centerline angle of not less than seventy (70) degrees (Refer to Angle of Intersection Illustration).

## 2) Number of Intersecting Streets

Not more than two (2) streets shall intersect in any one location.

# 3) Intersection Placement

The minimum spacing between intersections is based on the street classification of the street between both intersections, as follows, and is measured from centerline to centerline:

- a) Arterial intersecting Arterial 500 feet
- b) Collector intersecting Arterial 500 feet
- c) Collector intersecting Collector 300 feet
- d) Local intersecting Arterial 500 feet
- e) Local intersecting Collector 200 feet
- f) Local intersecting Local 150 feet

# 4) Intersection Sight Distance

Proposed intersections should not be situated on a short space crest vertical curve or on a sharp horizontal curve. The minimum corner sight distance at the intersection of any two (2) streets regardless of its classification shall be measured from a point in the centerline of the minor street at least fourteen and one-half ( $14\frac{1}{2}$ ) feet from the edge of the major road pavement and measured from the driver eye level, which is assumed to be three and one-half ( $3\frac{1}{2}$ ) feet above the pavement surface, to an object height of three and one half ( $3\frac{1}{2}$ ) feet above the pavement surface of the major street.

DESIGN SPEED MAJOR STREET (MPH)	CORNER INTERSECTION SIGHT DISTANCE
45	500
40	445
35	390
30	335

The minimum standards for corner sight distance are as follows for various design speeds on the major street:

<u>Note</u>: Sight distance above are for a stopped passenger car turning left onto a two (2) lane highway with no median and grades of three percent (3%) or less. For other conditions, the site distance must be figured in accordance with the MUTCD and Geometric Design Manual.

# 5) Intersection Turning Radius

The minimum curb radius at corners of non-residential local street intersections, and the minimum design vehicle (as depicted in the AASHTO <u>Geometric Design of</u> <u>Highways and Streets</u>, 2004 edition, and subsequent later editions) for all other non-residential street classification intersections shall be as follows:

	Local/Minor	Sub-collector	Collector	Arterial
Local/Minor	30 ft			
Sub-collector	40 ft	SU-30		
Collector	40 ft	SU-30	B-40	
Arterial	40 ft	B-40	WB-50	WB-67

The minimum curb radius at corners of residential local street intersections, and the minimum design vehicle (as depicted in the AASHTO <u>Geometric Design of Highways</u> <u>and Streets</u>, 2004 edition, and subsequent later editions) for all other residential street classification intersections shall be as follows:

	Local/Minor	Sub-collector	Collector	Arterial
Local/Minor	20 ft			
Sub-collector	25 ft	SU-30		
Collector	30 ft	SU-30	B-40	
Arterial	40 ft	B-40	WB-50	WB-67

When the intersection turning radius design denoted in the tables above do not provide adequate turning radius with a single curb radius, a three-centered compound curve or a single radius curve with a taper may be utilized to derive the optimum turning radius. All intersection designs shall accommodate a radius that will ensure no conflicting vehicle movements at the intersection.

#### O. Cul-de-sac Street Design

All dead-end streets that serve two (2) or more lots on the same side of the street shall support the turning movements of emergency and service vehicles by providing an adequate turnaround space. No cul-de-sac shall be permitted that exceeds 1,200 feet in length. Each cul-de-sac shall be provided at the closed end with a circular turnaround encompassing a concentric right-ofway and pavement radius, which will provide a consistent width between the right-of-way line and the curb line around the turnaround and the street sections.

# 1) <u>Residential Cul-de-sac</u>

A residential cul-de-sac street shall have a right-of-way of forty (40) feet in width, measured from lot line to lot line, with a pavement width of twenty-two (22) feet. Each cul-de-sac shall be provided at the closed end with a circular turnaround having an outside pavement diameter of seventy-six (76) feet (thirty-eight (38) foot radius) and a right-of-way diameter of not less than ninety-four (94) feet (forty-seven (47) foot radius).

# 2) Non-residential Cul-de-sac

A non-residential cul-de-sac street shall have a right-of-way width of forty-five (45) feet in width, measured from lot line to lot line, with a pavement width of twentyeight (28) feet, unless otherwise dictated by a traffic impact analysis. Each cul-desac shall be provided at the closed end with a circular turnaround having an outside pavement diameter of eighty-two (82) feet (forty (41) foot radius) and a right-ofway diameter of not less than ninety-six (99) feet (forty-nine and one half (49.5) foot radius).

In order to accommodate large truck freight movements, the Planning Commission may require, if determined necessary by the Planning and Engineering Staff, that the circular turnaround have an outside pavement diameter of up to one hundred (100) feet and a right-of-way diameter up to one hundred twenty (117) feet.

# 3) <u>Temporary Turnarounds</u>

If a street is extended within a development in phases, where the street is stubbed shall be provided with a compacted gravel temporary turnaround with a radius of forty (40) feet. It shall be the responsibility of the developer to remove the temporary turnaround and to construct the street extension. A temporary turnaround shall not be required on street stubs less than two lots deep or to adjacent property not within the approved preliminary development plan.

# P. Subdivision Identification Signs

In order to create neighborhood identity, a development may include a subdivision identification and/or entrance sign. All such subdivision identification signs shall meet the following standards of design (Refer to Subdivision Identification Signs Illustration). The City of Three Way and Madison County shall not be responsible for the maintenance of subdivision entrance and/or identification signs. Provisions for the permanent maintenance of such signs shall be specified by the developer and referenced on the final plat and recorded in the Register's Office of Madison County, Tennessee.

1) Subdivision identification entrance signs proposed to be located within landscaped islands within a street right-of-way shall be depicted on the preliminary, construction

and final plat, and shall be designed with a minimum street pavement width of thirteen (13) feet on both sides of the island. Additional street right-of-way width will be necessary to accommodate the street pavement width and landscape island. The landscape island containing the identification sign shall be setback a minimum of fifteen (15) feet from the intersecting street right-of-way.

2) Subdivision identification signs proposed to be located on corner lots shall be depicted on the preliminary, construction, and final plat, and shall be designed to maintain visibility at intersections. No identification sign will be permitted within an obstruction free zone located on the lot measured from the end of radius of each intersecting street across the lot. The placement of the corner subdivision identification sign shall also take into account any existing utility services and/or easements when designing the sign easement and sign placement. No identification sign shall be permitted within an identified utility easement.

# Q. Street Block Length

The design of subdivision blocks in terms of length, width, and shape should reflect adequate provisions for building sites, needs for access and circulation, and limitations created by topographic features.

Blocks shall not be less than four hundred (400) feet in length nor more than one thousand two hundred (1,200) feet in length, except as the Planning Commission considers necessary to secure efficient use of land or desired features of street pattern.

Pedestrian mid-block crosswalks of not less than ten (10) feet in width may be required by the Planning Commission to provide access to schools, recreational facilities, or commercial establishments, and improve pedestrian circulation where block lengths are in excess of eight hundred (800) feet.

# R. Street Block Width

Blocks shall be wide enough to allow two (2) rows of lots, except where fronting on major streets or prevented by topographic conditions or size of the property, in which case the Planning Commission may approve a single row of lots of minimum depth if deemed desirable. A statement dissolving the right of rear access of individual double frontage lots may be required on the final plat.

# S. Lots

Each lot in a proposed subdivision shall comply with the minimum requirements of zoning regulations for area and width. However, the Planning Commission may require lot widths or sizes larger than the minimum zoning regulations for a subdivision if it is deemed necessary to maintain harmony with the surrounding area. Where lots are proposed with individual well and/or septic tank systems, the lot shall conform to the size and/or width dictated by the soil survey reviewed by the Madison County Health Department. Side lot lines shall be generally at right angles or radial to the street right-of-way lines unless a variation of this regulation will provide a more desirable lot pattern. Each lot shall have physical frontage on a public or private

street, except as approved by the Planning Commission as part of an overall development plan involving a commercial or industrial travel easement.

#### T. Easements

All easements shall be located by bearings and dimensions or by coordinates. Specific requirements for utility and drainage easements are as follows:

## 1) Utility Easements

Easements shall be provided where necessary for sanitary sewer, water mains, gas mains, electric lines, telephone lines, cable television lines, and other necessary services. The easement shall permit the utility service provider the perpetual ability to enter at any time to construct, install, maintain, repair, rebuild, operate, and patrol its electric, gas, water, wastewater, and telecommunication line(s) and all necessary appurtenances, in, on, over, under, and across the easement together with the right to clear said easement and keep it clear of brush, trees, structures, and fire hazards, and to remove dangerous trees, if any, located beyond the limits of the easement.

The location of existing easements of record and easements created by bearings and distances in conjunction with plat approval shall be indicated on the final subdivision plat.

All final plats shall include a Jackson Energy Authority (JEA) easement along the street frontage based on the street functional classification as depicted in the following table:

Street Classification	Frontage Easement (FT)
Residential Local/Minor	15
Commercial Local/Minor	20
Sub-Collector	20
Collector	15
Arterial	15

Construction drawings for subdivisions and final site plans shall show existing easements of record and easements being created, and shall also indicate the proposed location of electric, gas, telephone, and cable television easements in order to avoid conflicts with new utility extensions.

In the event there are existing electric transmission or distribution lines where easement widths are not definitely established, there shall be a minimum structure setback line from the center of the transmission line, based on the voltage of said electric line, as follows:

Voltage of Electric Line (KV)	Minimum Structure Setback (FT)
12	15
46	371/2
69	50
161	75

# 2) Drainage Easements

When any stream or substantial surface drainage course is located in the area being subdivided or developed, provisions shall be made for an adequate easement along the stream or drainage course for the purpose of widening, deepening, relocating, improving, or protecting the stream or drainage course for drainage purposes. Such easements shall be in addition to the required stream width.

If a major drainage ditch is located within or adjacent to the development, the developer shall either install the appropriate improvements, as determined by the Engineering Staff, or provide a twenty-five (25) foot minimum drainage easement from the top of the ditch bank.

The location of existing easements of record and easements created by bearings and distances in conjunction with plat approval shall be indicated on the final subdivision plat.

# 3) <u>Residential Travel Easements</u>

Any easement thus created shall establish and maintain a minimum width of fifty (50) feet in its entirety, have access to a public street or road, serve as access to only one legally recorded lot of record, and be permanently recorded in perpetuity. For the purpose of these Regulations, any travel easement shall be considered a street whenever: 1) it serves more than one lot, or 2) it serves any lot created through the subdivision process. All streets shall be improved in accordance with the specifications outlined herein.

# 4) Commercial Travel Easements

Commercial lots may be created without public road or street frontage provided the following conditions exist:

- (a) The easement is shown on a plat, recorded in the Register's Office for Madison County, Tennessee either prior to, or concurrently with, the platting of the lot(s) being served by the easement.
- (b) In approving commercial travel easements, the planning staff shall consider such factors as circulation, access, ingress and egress, parking, as well as, maintenance of yard, area, and other zoning requirements of any lot(s) affected by said easement.
- (c) The parcel(s) involved in the easement agreement are all served internally by a common parking lot, as would be characteristic of a shopping center without parcels.
- (d) An adequate maintenance agreement between the property owners involved is established for the future maintenance of said travel easement.

#### U. Storm Water Management

These standards for the design of storm drainage systems are established to forestall flooding and ponding of water on streets, lots, building sites, dwellings, and sites for drainfields of individual subsurface sewage disposal systems and to prevent erosion. In addition, these standards are designed to prevent damage from increased runoff and changed drainage patterns created by subdivision of land. The design method chosen to address the storm water management must be used consistently throughout the pre-development and post-development analysis. The Rational or TR-55 Methods are acceptable design methods.

The drainage system shall be designed based on a storm frequency of ten (10) years and the intensity duration and frequency (IDF) curve for Jackson, Tennessee depicted in the Tennessee Department of Transportation (TDOT) Design Division Drainage Manual April 2008 edition or any subsequent later editions, except for identified blue-line streams.

The drainage conduits shall maintain a minimum velocity of two and one half  $(2\frac{1}{2})$  feet per second at full flow, but shall not exceed twenty (20) feet per second. Drainage structures to be located in established blue-line streams shall be designed for a one hundred (100) year storm event. The size of openings to be provided shall be designed by acceptable methods, but in no case shall the pipe be less than fifteen (15) inches in diameter.

The construction of storm sewers and storm water management systems shall be in accordance with the lines and grades shown on the approved construction plans.

When the subdivision proposal includes a detention facility to conform to the provisions noted above, the facility shall include the following minimum design information as a part of the construction drawing package, and shall bear the seal of a professional engineer licensed to practice in Tennessee:

- 1) An engineering report with the following basic documentation:
  - a) Delineation of all on-site and off-site drainage basins for pre-developed conditions.
  - b) Delineation of all on-site and off-site drainage basins for post-developed conditions
  - c) Hydrologic parameters for each basin for pre- and post-developed conditions including:
    - Basin area
    - Runoff coefficient (or curve number) with description of land use.
    - Time of concentration and travel times
    - Storm intensity or hydrograph
    - Calculated peak flow for each applicable storm event (with reference to the methodology used for the calculation).

- d) Total peak flow to each outfall from the property for pre- and post-developed conditions for each storm event.
- e) Calculation of required pond storage for each storm event, with reference to methodology employed (if not a commonly accepted method, a published reference must be provided).
- f) Stage vs. storage curve (or table) for the pond.
- g) Control structure rating curve (stage vs. discharge), with reference to methodology employed and any input parameters such as weir/orifice coefficients.
- h) Description of the outlet conditions (i.e. tailwater conditions) and receiving waters.
- i) A statement that, as designed, the post-developed discharge from the site will not exceed the pre-developed discharge for each applicable storm event.
- j) Freeboard in the storage facility at the 10-yr storm event.
- 2) The plan showing the detention facility must include the following minimum features:
  - a) Detailed dimensions of outlet structure.
  - b) Control elevation of outflow structure.
  - c) Pond cross-section through the outlet structure with all elevations labeled clearly along with all pond dimensions clearly shown.
  - d) Existing and proposed site grading information sufficient to determine that the delineations of the drainage areas as required in the detention report reasonably reflects existing and proposed conditions.
- 3) The detention facility shall be maintained by the developer or may be assigned to a Home Owners Association. A maintenance agreement shall be executed and recorded at the Register's Office for Madison County, and a note shall be placed on the final plat denoting the recording information for the maintenance agreement. Each maintenance agreement shall at a minimum assign clear maintenance responsibility, provide for financial means of making future maintenance, and shall include the following language in every maintenance agreement:

"I/We, the Owner(s) of (<u>Insert Subdivision Name and Section Number</u>), as surveyed by (Insert Surveyor Name), do hereby agree to adequately maintain, at owners expense, the stormwater detention basin facility approved as a part of the (<u>Insert Subdivision Name and Section Number</u>) project and depicted on the referenced final plat. The detention basin and appurtenances will be maintained to a level such that it will function in the manner to which it was originally designed and constructed to serve the overall stormwater drainage system for the City of Three Way, Tennessee.

This agreement shall be binding to all current and future owners of the property and shall be deemed to be perpetual and shall further be construed to run with the land described herein. In the event the Owner(s) breach or otherwise default on the terms under this agreement, as determined by the City of Three Way, the Owner(s) shall have thirty (30) days from written notice thereof by the Storm water Management to correct such default."

A waiver of the normal storm water detention requirement may be granted by the Planning Commission in the event the design engineer and engineering staff determine that detention would create an adverse impact on the overall storm water system.

# V. Large Tracts or Parcels

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

# W. Traffic Impact Analysis

In order to identify the improvements, if any that are needed to offset the additional traffic generated by a proposed level of development a traffic impact analysis may be required. The Planning Staff will determine when a traffic study is required based on the following screening thresholds:

Development Type	Size Threshold	Trip Generation Threshold
Residential	100/du	N/A
Non-residential	50,000 sq ft	N/A
Residential Mixed Use	NI ( A	100/pkhr vehicle trips
(without reductions)	vithout reductions)	1,000 daily vehicle trips

Other reasons that a Traffic Impact Study may be required include, but are not limited to:

- An application is submitted to rezone a parcel(s) or change the use of a parcel(s) to allow a more intensive trip generating use.
- The project is located at or near a signalized intersection operating below Level of Service D.
- The project will provide a through connection that links collector roadways and/or roadways of higher classification.

- The street segment serving the project does not meet current City of Three Way minimum street standards and/or does not conform to acceptable geometric configurations as defined by these Subdivision and Land Development Regulations and/or the Tennessee Department of Transportation.
- The project is located near a location identified by the Planning or Engineering Staff as a high crash/accident location.
- The Planning or Engineering Staff has specific concerns about site access and/or safety issues.

The Planning Staff shall have the full discretion to determine when to require that a traffic impact study be submitted.

An applicant shall not avoid the intent of this requirement by submitting piecemeal applications or approval requests for subdivision plats, preliminary or site development plans, or building permits.

All required traffic analysis shall be prepared by a Tennessee licensed traffic engineer.

# X. Off-Site Improvements

In the event that improvements are designated through the approved traffic impact analysis as defined within these Subdivision and Land Development Regulations to mitigate the effect of a proposed development on the existing traffic pattern, the improvements shall be depicted on the preliminary development plan and approved as a part of the subdivision proposal by the Planning Commission. All off-site improvements shall be designed meeting the provisions of these Subdivision and Land Development Regulations.

All off-site improvements shall be installed at developer(s) expense as a part of the subdivision development, and shall be constructed prior to the approval of the final plat.

# Y. Traffic Signal Design and Construction Standards

If the mitigation measure denoted through the traffic study includes a traffic signal, the signal shall be designed by an experienced traffic engineer licensed in the State of Tennessee and shall adhere to the minimum design and construction standards for new or modified traffic signals contained within these Subdivision and Land Development Regulations.

For signal modifications that are part of development projects, the developer/contractor is responsible for all work outside of the signal cabinet. All in-cabinet work will be done by Jackson Energy Authority. The developer/contractor will be responsible for coordinating work with JEA and paying all applicable charges.

- (a) Plan Submittal Requirements
  - 1. Signal plans must be prepared under the supervision of a professional engineer licensed to practice in the State of Tennessee.

- 2. Signal Plans shall be submitted as a separate plan set for each signal to be installed. Signal plans shall not be combined in site plan or subdivision construction plan packages, and shall be submitted directly to the Planning Staff as a part of the construction drawing package. The Planning Staff will forward all signal plans to the Engineering Staff for review and final approval. Four (4) full size (24' x 36") and two (2) half-size copies of signal plans must be submitted.
- 3. Following completion of construction, two (2) printed copies and one electronic copy (Adobe Acrobat format) of As-Built Signal Plans along with a per item list of signal quantities used and associated signal costs shall be submitted.
- 4. Signal Plans shall include the following (at a minimum):
  - a. Intersection Layout (1"=20' scale) w/ ROW Boundary
  - b. Detector locations
  - c. Conduit configuration
  - d. Pole dimensions
  - e. Wiring Diagram
  - f. Detector assignments
  - g. Phasing Diagram
  - h. Basic signal timings
  - i. All other information necessary to fully illustrate the signal installation.

#### (b) Signal Support Requirements

- 1. Signal Poles shall be circular cantilever steel poles (mast-arm), circular steel strain poles, or circular concrete strain poles. Hexagonal shaped, wood, or other guyed type poles are not permitted.
- 2. Structural design of poles is the responsibility of the signal designer or pole fabricator. Shop drawings and calculations for signal poles shall also be submitted as noted above. The design shall meet the requirements of "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals" (latest edition). Shop drawings and calculations shall be provided prior to installation.
- 3. Design of pole foundations shall be illustrated in the plans including foundation dimensions and reinforcement details.
- 4. All pole foundations shall include one spare conduit (2" diameter).

#### (c) Signal Head Requirements

 All signal indications (vehicle and pedestrian) shall utilize Light Emitting Diode (LED) optical units conforming to the latest edition of applicable ITE Standards. Test documentation and warranty information shall be submitted prior to installation.

- 2. Pedestrian Signals shall utilize filled (not outline) symbols.
- 3. Pedestrian Signals are to be clamshell type mountings, yellow in color, aluminum construction, with egg crate visors.
- 4. Vehicle Signals mounted on span-wire are to be tethered.
- 5. Vehicle Signals mounted on mast-arms are to be rigid mounted with Astro-Brac or equivalent mountings.
- 6. All signal heads mounted above the roadway shall be equipped with aluminum backplates.
- 7. All vehicle signals shall be 12" indications.
- 8. Pedestrian Signals shall be 9" minimum symbol height.
- 9. Where spacing between adjacent intersections will be less than 500 feet, optically programmable signals will be required unless site conditions preclude simultaneous viewing of the adjacent signals. Optically programmable signals or visibility limiting louvers may also be required where intersection angles could allow viewing of signal heads from multiple approaches.
- 10. Protected only left-turn signal heads shall utilize a red-arrow indication.
- 11. All signal heads shall be cast aluminum construction, yellow in color, with tunnel visors.
- (d) Signal Conductors Specifications
  - 1. Minimum signal cable size to any vehicle signal head is 7-conductor.
  - 2. Splices are permitted in pull boxes, signal heads or pole bases only.
- (e) System Operational Requirements
  - 1. Any signal installation resulting in signal spacing less than 1/2 mile must include a master controller and communications interconnect necessary for closed-loop system operation, unless such equipment is already present in existing signals.
  - 2. Master Controllers
    - a. Master Controllers shall be Eagle MARC series controllers with internal single mode fiber-optic modem. Designs with master capability integrated into local controllers will not be permitted.

- 3. Communications
  - a. Any new signal installation within 1/2 mile of an existing or approved future signal shall include communications interconnection between the signals.
  - b. Except where signals are installed in an existing closed loop system utilizing other communications modes, all signal interconnection shall be by single mode fiber optic cable. If installed in an existing system, new signals shall include communications interconnect compatible with the existing system.
  - c. Minimum size for fiber optic cable is 12-fiber. Drop cables from the main trunk cable into cabinets shall be 6-fiber.
  - d. Fiber optic cable shall meet Jackson Energy Authority specifications.

## (f) Controller Specifications

 Controller shall be an 8/16 phase Eagle EPAC M-52 series controller. Controller shall be equipped with 10-Base T internal Ethernet port and single mode fiber optic modem.

## (g) Cabinet Design

- 1. Pole mount cabinets are not allowable in locations where the location of the cabinet would project over any sidewalk or area reserved for future sidewalk.
- 2. Use of pole mount cabinets is restricted to 4-phase cabinets, except where exceptions are granted, in writing, by the City of Three Way Engineering Staff due to unusual site conditions.
- 3. Cabinets shall be keyed for a standard #2 key.
- 4. Cabinets shall be unpainted aluminum.
- 5. Base mount cabinets shall include one spare conduit (2" diameter).

# (h) Signal Phasing

- 1. Where protected-permissive left-turn operation is provided, design shall specify cabinet wiring to prohibit "Yellow trap".
- 2. Phasing shall conform to the recommendations of the approved traffic impact analysis or signal modification study.
- (i) <u>Signal Timings</u>
  - 1. Initial basic signal timings shall be prepared by the signal designer and shown in the plans.

a. Guidelines for basic timings are as follows:

Interval	Value	
Min Green	<ul> <li>6 seconds for left turn phases</li> <li>8 seconds for thru movement from minor side street</li> <li>10 seconds for thru movement from major side street</li> <li>12-15 seconds for main street thru movements</li> </ul>	
Max I	<ul> <li>15 seconds minimum side streets and left turns</li> <li>30 seconds minimum main street thru movements</li> </ul>	
Passage	<ul> <li>2 seconds for stop-bar detection</li> <li>5 seconds for advance detection</li> </ul>	
Yellow Clearance	<ul> <li>Per ITE Formula – 3.5 sec min, 6 sec max</li> </ul>	
Red Clearance	Per ITE Formula – 2 sec max	
Walk	<ul> <li>7 seconds min</li> <li>If crossing time at 3.0 ft/sec exceeds Walk + FDW + Yellow + Red, increase Walk time accordingly.</li> </ul>	
Flashing Don't Walk	<ul> <li>Based on crosswalk length at 3.5 ft/sec.</li> </ul>	

2. Coordinated signal timings shall be prepared by the developer/contractor's engineer of record for the project responsible for the signal design.

# (j) Signal Activation

- 1. Signals may not be placed into flashing or stop/go operation until written approval is obtained from the City of Three Way Engineering Department.
- 2. When all signal construction is completed, request inspection through Planning Staff. Allow a minimum of 3 working days for inspection and approval prior to turn-on date.
- 3. Signal heads shall not be installed more than 2 weeks prior to planned activation date. Once installed, signal heads shall be fully covered until activated.
- 4. Cabinet, controller and all internal cabinet equipment shall be provided to JEA for inspection and testing a minimum of 2 weeks prior to planned installation.
- 5. Temporary Changeable Message Signs may be required on any or all approaches to a new signal at the discretion of the Engineering Staff.
- 6. Certification of the installation by an IMSA Level II technician is required prior to signal activation. The developer/contractor is responsible for all costs related to this certification.

#### (k) Flash Operation Requirements

1. Red-Red flash will be utilized where approach volumes are approximately equal.

- 2. Yellow-Red flash may be used at the discretion of the designer where major street approach volume is significantly greater than side street volume.
- 3. Flash operation shall be specified in the plans.
- (I) <u>Detection Requirements</u>
  - 1. Vehicle Detection
    - a. All traffic signals shall be designed with detection to permit fully actuated operation, regardless of any coordination that may also be required.
    - b. Inductive Loops
      - Loops serving through lanes of approaches with anticipated approach speeds in excess of 35 mph shall be designed to minimize dilemma zone issues. Designs utilizing advance detection shall also incorporate detectors located at the stop bar for calling and queue clearance. Advance loops and stop bar loops shall be assigned to separate detection channels.
      - ii. Loops serving exclusive right-turn lanes (if used) shall be assigned to independent detection channels.
      - iii. Loops serving private driveways shall be preformed loops.
      - iv. Loop sealant shall be on TDOT's Qualified Products List.
      - v. Quadrupole loops are required in all left turn lanes.
      - vi. Power head loops are required on all thru lanes not operating on recall.
      - vii. Detector amplifiers shall be 4-channel rack mount units with extend/delay timing capability. Detector card racks shall be 5 position racks at a minimum. All 4-phase cabinets should be equipped with a minimum of eight (8) channels of detection. All 8-phase cabinets should be equipped with a minimum of twelve (12) channels of detection. In special cases, additional channels may be necessary.
    - c. Video Detection
      - i. Video detection will be permitted only in special circumstances at the discretion of the Engineering Staff.

- d. Other Detection Technology
  - i. Detection technology other than inductive loop or Video will be permitted only with advance approval of the Engineering Staff. Detailed specifications and references must be submitted for consideration.
- 2. Pedestrian Detection
  - a. All pedestrian phases shall be actuated by pedestrian pushbuttons.
  - b. All pedestrian pushbuttons shall incorporate accessibility features in conformance with the "Americans with Disabilities Act Accessibility Guidelines for Public Rights-of-Way" (ADAAG-PROW.
  - c. Pushbutton locations shall comply with ADAAG-PROW guidelines and the requirements of the Manual on Uniform Traffic Control Devices.

## (m) Conduit Specifications

- 1. Schedule 40 PVC conduit may be used for conduit installed in unpaved areas.
- 2. Schedule 80 PVC or rigid steel conduit is required in paved areas.
- 3. Underground Electric Service shall be in rigid steel conduit.
- (n) <u>Right-of-Way/Easements Specifications</u>
  - 1. All signal components (poles, cabinet, pullboxes, conduits, and loops) are to be contained within public right-of-way or easements granted for that purpose.
  - 2. A minimum of 5' of right-of-way or easement shall be provided on all sides of the cabinet to allow for technician access.

#### (o) Electric Service Criteria

- 1. The City of Three Way uses a non-metered service for traffic signals.
- 2. The signal designer will be responsible for coordination with Jackson Energy Authority regarding cabinet location to permit access to electric service.
- 3. The signal installer is responsible for coordination with Jackson Energy Authority for electric service connection.
- (p) Grounding Requirements
  - 1. Base mounted cabinets shall utilize a 4-rod grounding system.
  - 2. Pole mounted cabinets must be grounded separately from the pole.

3. Each signal pole shall be independently grounded.

#### (q) Signage Requirements

- 1. Signal related signage shall be designed and installed as part of the signal installation.
  - a. Signal Ahead Warning Signage will generally be required in advance of new signal installations or on approaches to groups of closely spaced signals.
  - b. Street Name Signs are required at all signal installations. Street Name Signs will generally be mounted to the right of the right-most signal head for each approach. Minimum letter height is 8" for capital letters and 8" for lower case letters. Lettering shall be FHWA Series C. Overall dimensions of street name signs shall be 18" minimum height and length at least 8" longer than the legend length.
- 2. All signage shall be High-Intensity Prismatic grade or higher sheeting.

#### (r) Provision for Pedestrians

- 1. All signal design shall take into account the needs of pedestrians, regardless of the presence of sidewalks, except where specific written exception is granted by the Engineering Staff.
- 2. Except in unusual conditions, pedestrian signals and pushbuttons shall be provided across all signalized intersection approaches.
- 3. Curb ramps and/or landing areas complying with the requirements of the Americans With Disabilities Act Accessibility Guidelines for Public Rights-of-Way (current draft or edition) must be provided to permit access to pedestrian pushbuttons.

#### (s) Preemption Requirements

1. Traffic signals in proximity to railroad crossings or fire stations may require preemption devices.

#### END ARTICLE VI

# Article VII | Required Installation of Public Improvements

#### A. Purpose

The purpose of this section is to establish the minimum standards to which the developer of property shall conform while providing and constructing physical improvements for subdivisions, so as to implement the design standards set forth in these Subdivision and Land Development Regulations.

#### B. General

Every subdivision developer shall be required to at a minimum grade and improve streets and other public ways, to install survey monuments, utilities, curbs, gutters, sidewalks, bike lanes, signs, signals, pavement markings, sewer and water mains, storm water inlets, storm water facilities, surface and ground water drainage channels and structures, install buffer screens, and prepare landscaping in accordance with these Subdivision and Land Regulations, or other applicable regulations or specifications of the City of Three Way or Madison County.

In lieu of completion of certain improvements and prior to final subdivision acceptance, the Planning Staff may accept a surety instrument or performance bond in an amount and conditions satisfactory to it, providing for and securing to the City of Three Way or Madison County the actual construction and installation of such improvements within a period specified in the <u>Standard Subdivision Contract</u> and expressed in the surety instrument.

#### C. Survey Monuments

As a requisite for completion of subdivision development, each land boundary survey of a tract or parcel of land shall be monumented with permanent material at all corners and changes of direction on the land boundary with the exception of meanders, such as the meanders of streams, lakes, swamps, and prescriptive road right-of-way. Where it is not feasible to set actual corners, appropriate reference monuments shall be set, preferably on line, and the location shall be shown on the plat of the land boundary.

There are three (3) types of monuments required for this purpose:

1) Control Monuments

Control monuments provide the accurate and permanent base from which all of the features of the subdivision can be retraced by survey, including lot lines, rights-of-way, easements, and replacement of lost or obliterated lot corner monuments. Control monuments must be permanent and shown and described on the final plat by label, and shall be tied to the subdivision boundary, along with the coordinates of the position of the monument in the Tennessee Coordinate System of 1983 expressed in U.S. survey Feet (TCA 66-6-102) and its elevation relative to mean sea level. These monuments must meet the following minimum specifications:

(a) Consist of a one (1) inch inside diameter by twenty-four (24) inch long section of schedule 40 pipe or a 5% inch by twenty-four (24) inch steel rod with a

permanently attached brass or aluminum cap one and one-half  $(1\frac{1}{2})$  inches in diameter with a precise position marked by indention or cross.

- (b) The monument must be driven flush in compacted soil or set in concrete so as not to be subject to movement from natural causes.
- (c) The monument may be located on a corner of the exterior boundary of the subdivision, on a lot corner, or at any random point within the subdivision provided that the monument must be situated so they will survive the construction phase of the subdivision and the improvement of the lots.
- (d) The monuments must be placed at least two hundred (200) feet apart, except, in special circumstances, where this is not practical or possible, otherwise, the longest practical separation shall be used.
- (e) Two (2) monuments, preferably intervisible, will be installed for each subdivision containing three (3) or more lots and on larger subdivisions, two (2) monuments for each block created.

#### 2. Lot Corner Monuments

Lot corner monuments are the basis for defining the boundaries of the individual lots created by the subdivision. In order to ensure adequate protection to the prospective lot owners, no lot shall be transferred or improved for building before lot corners monuments are installed. All exterior corners and lot corners of the subdivision shall have adequate monuments found in place or installed prior to submittal of the final plat. The final plat shall specify that monuments have been installed along with a physical description of the monuments. Lot corner monuments are considered permanent and must meet the following minimum specifications:

- (a) The monuments shall consist of a <sup>1</sup>/<sub>2</sub> inch inside diameter by eighteen (18) inch long section of schedule 40 pipe or a <sup>1</sup>/<sub>2</sub> inch by eighteen (18) inch long steel rod with identification cap or tag that meets the Standards of Practice for Surveyors in Tennessee.
- (b) Witness monuments may be set on or along a projection of the lot lines where the actual corner is not accessible. These monuments must be shown on the final plat with label ties to the actual corner.

#### 3. <u>Temporary Monuments</u>

Prior to the installation of permanent lot corner monuments and during the construction phase of the subdivision development, all lot corners in the subdivision shall be marked with one (1) or more flagged guard stakes. However, upon completion of the subdivision development, permanent metal rods shall be placed at all lot corners, as described above.

A temporary control monument shall be installed and depicted on the construction drawings with reference by location and elevation. The monument shall be placed so that the monument is not damaged or destroyed by construction activities.

#### D. Street Construction Procedures and Specifications

The developer shall construct all streets, roads, and alleys at his/her expense to the approved alignments, grades, and cross-sections. Minimum standards of design shall be utilized as outlined within these Subdivision and Land Development Regulations, unless a variance has been granted by the Planning Commission.

#### 1. Subgrade Preparation

- (a) The subgrade shall be constructed with a suitable soil according to Section 207 of the Tennessee Department of Transportation <u>Standard Specifications for</u> <u>Road and Bridge Construction</u>, 2006 edition, and any subsequent amendments. Cut and fill slopes shall generally not exceed a grade of 3:1.
- (b) Before grading is started, the areas within the limits of construction shall be cleared of all objectionable matter, such as trees not intended for preservation, stumps, roots, weeds, heavy vegetation, etc. Topsoil shall be removed and stockpiled for later use as a topping-out material for seeding and sodding.
- (c) Appropriate erosion control methods, as specified within these Subdivision and Land Development Regulations, shall be applied in the preparation of the subgrade.
- (d) If rock is encountered, it shall be removed or scarified to provide adequate roadway drainage to a depth of two (2) feet below the subgrade.
- (e) Lots shall be graded in such a manner as to ensure that all drainage can be installed to meet the requirements set forth in these Subdivision and Land Development Regulations.
- (f) <u>Fill Material:</u>

Within any portion of a street right-of-way requiring fill material, such material shall be compacted to 95 percent of the Standard Optimum Proctor Density (ASTM D698-91). The top six inches of all fills and cut areas in the street shall be compacted to 100% of Standard Optimum Proctor Density as per ASTM D-698. To attain this compaction, the following procedures shall be followed:

- (1) Fill material shall be evenly and uniformly spread in lifts not to exceed ten(10) inches in thickness over the entire width and thickness of the roadway.
- (2) Each lift shall be thoroughly rolled with an approved sheep's foot or vibratory compactor.

- (3) Soils that are too wet shall be allowed to dry before compaction is attempted.
- (4) Soils shall be within plus or minus three percent (3%) of the optimum moisture content.
- (g) After grading is completed, and before the pavement base is applied, all of the underground work scheduled for trenching in the roadbed (water and sewer lines, and any other utilities, service connections, and drainage culverts) shall be installed completely throughout the length and width of the subgrade.
- (h) Where the subgrade is cut for the installation of underground utilities, the trench shall be backfilled according to Section 204 of the Tennessee Department of Transportation <u>Standard Specifications for Road and Bridge Construction</u>, 2006 edition, and any subsequent amendments. The backfill shall be thoroughly compacted in layers not to exceed six (6) inches in thickness, by vibratory or pneumatic tamping equipment. Backfills shall be compacted to 100% of the Standard Optimum Proctor Density.
- (i) The finished subgrade shall provide for the superelevation and crown of the roadway.
- (j) Subgrade compaction testing must be completed after installation of all utilities in the street and immediately preceding base material application. The subgrade compaction test results must be submitted to and approved by the Engineering Staff prior to the application of the base material.
- (k) The minimum frequency of soil tests shall be every 300 feet of street length with a minimum of three (3) tests per project phase. Testing shall be performed at the above frequency on each ten (10) inch lift of fills and on the final subgrade whether in cut or fill.
- (I) Prior to placing granular base on the street, the subgrade shall be proof rolled with a loaded dump truck with a gross weight of approximately 30 tons in the presence of the Engineering Staff or his designee. Notify the Engineering Staff a minimum of two working days in advance for scheduling. Any movement in the subgrade horizontally within six (6) inches of the truck tire or vertically a depth of over one half (1/2) inch may constitute failure of the proof-roll test.
- (m)The developer shall use methods and dust control materials to minimize dust from the construction operation and provide positive means to prevent airborne dust from dispersing into the atmosphere.

#### 2. Street Drainage

(a) The street drainage system shall be constructed according to Section 607 of the Tennessee Department of Transportation <u>Standard Specifications for Road and</u> <u>Bridge Construction</u>, 2006 edition, and any subsequent amendments, and as varied within these Subdivision and Land Development Regulations.

- (b) An adequate drainage system, including necessary storm sewers, open ditches, pipes, culverts, intersectional drains, drop inlets, bridges, curbs and gutters, headwalls, detention/retention basins and associated control structures, etc. shall be provided in a manner that ensures the proper drainage of all surface water.
- (c) Cross drains shall be provided to accommodate all natural water flow, and shall be of sufficient length to permit the full width of the roadway and the required slopes. The allowable headwater at all cross-drains shall be at least one (1) foot below the finished grade of the crown of the street.
- (d) All cross drains that are to be laid under the roadway shall be of reinforced concrete construction (minimum class III), or as specifically approved by the Engineering Staff.
- (e) The size of openings to be provided shall be designed by acceptable methods, but in no case shall the pipe be less than fifteen (15) inches in diameter.
- (f) Cross drains shall be built on straight line and grade, and shall be bedded with Class B bedding material a minimum of four (4) inches in thickness in accordance with Section 204 of the Tennessee Department of Transportation <u>Standard</u> <u>Specifications for Road and Bridge Construction</u>, 2006 edition, and any subsequent amendments.
- (g) Pipes shall be laid with the spigot end pointing in the direction of the flow and with the ends fitted and matched to provide tight joints and a smooth uniform invert.
- (h) Concrete headwalls shall be provided at the inlet and outlet of all cross drains. Wing walls may also be required if determined as necessary by the Engineering Staff.
- (i) All drain pipes and culverts shall be placed at a sufficient depth below the subgrade to avoid dangerous pressure of impact, and in no case shall the top of the pipe be less than one (1) foot below the finished subgrade.
- (j) Streets with curb and gutter sections shall have drainage flowing between lots piped to the rear of the lot. Where a drainage ditch runs along the back property line, the pipe shall run to the ditch with end treatment to prevent scour and erosion. Where a ditch does not run along the back property line, the pipe shall be stopped ten (10) feet short of the back property line with proper end treatment to deenergize the water and prevent erosion. Curb cuts with surface drainage will not be permitted.
- (k) All drainage inlets located at a street sag shall be double inlets.

(I) All open drainage ditches within the subdivision shall be treated for erosion control. The following minimum treatment shall be made to the ditches with respect to the following criteria:

Grade		Velocity (Ft/sec)	Treatment
0.5% - 1.99%	OR	0 - 3.99	Grass Seed
2.0% - 4.99%		4.0 - 5.99	Grass Sod
Above 5.0%		Above 6.0	Curb and gutter
			Concrete lined
			Underground pipe

- (m)Where a lot abuts a drainage ditch, the developer, prior to final plat approval, shall treat the yard for erosion control by seeding gentle slopes and grass sodding sharper slopes. Where any grading operation removes the topsoil and leaves the terrain in such a condition that erosion will occur, the graded area shall be seeded, fertilized, and covered with straw.
- 3. <u>Pavement Base Preparation (Refer to Street Minimum Thickness Illustrations)</u>
  - (a) After the installation of all drainage culverts and underground utilities, and after preparation and approval of the subgrade, the roadbed of arterial and collector level streets shall be surfaced with Tennessee Department of Transportation Standard 303-01 mineral aggregate, Type A base, Grade D limestone rock. However, the roadbed of sub-collector and local/minor level streets may be constructed with a Type A or B Grade D base rock material.
  - (b) Spreading of the stone base shall be done uniformly over the area to be covered by a box spreader or other appropriate spreading device and shall not be dumped in piles.
  - (c) After spreading, the stone base shall be rolled until thoroughly compacted to a Standard Optimum Proctor Density of 95%. The compacted thickness of the stone roadway shall be no less than eight (8) inches for local/minor, subcollector, and collector level streets, and shall be no less than ten (10) inches for arterial level streets, installed in two (2) equal lifts.
  - (d) Construction shall be as specified in Section 303 of the Tennessee Department of Transportation, <u>Standard Specifications for Road and Bridge Construction</u>, 2006 edition, or subsequent later editions.
  - (e) The granular base shall be tested for density and thickness every 300 feet of street length with a minimum of three (3) tests per project phase.
  - (f) Prior to placing asphalt binder on the street, the granular base or soil cement base shall be proof rolled with a loaded dump truck with a gross weight of approximately 30 tons in the presence of the Engineering Staff or his designee. Notify the Engineering Staff a minimum of two working days in advance for scheduling. Any movement in the granular base horizontally within six (6) inches

of the truck tire or vertically a depth of over one half (1/2) inch may constitute failure of the proof-roll test. Any visible cracking in the soil cement base may constitute failure of the proof-roll test.

- (g) Any portion of the finished base that is disturbed by construction activities shall be reworked, compacted, and tested prior to the application of binder surface.
- (h) Asphaltic Base Preparation

After the installation and approval of the compacted gravel base or soil cement material, an additional layer of asphaltic base (A-mix) shall be required for all collector and arterial level streets in order to accommodate anticipated heavier freight movements and a longer more stable life expectancy for the roadway. The minimum thickness of the asphaltic base for the collector level streets shall be three (3) inches. The minimum thickness for arterial level streets shall be four (4) inches.

Construction shall be as specified in Section 307 of the Tennessee Department of Transportation, <u>Standard Specifications for Road and Bridge Construction</u>, 2006 edition, or subsequent later editions.

(i) <u>Alternate Base Preparation (Soil Cement)</u>

A Soil Cement Base may be used as an alternate pavement base preparation on local/minor and sub-collector level streets. Soil cement shall be shown on the pavement detail for construction drawings under pavement detail. If chosen by the developer the soil cement base shall meet the following specifications:

1) General

The soil cement base shall consist of soil and Portland cement uniformly mixed, moistened, compacted, finished, and cured.

2) Thickness

The soil cement base shall have a minimum compacted thickness of six (6) inches under asphalt pavement area for local/minor and sub-collector level streets.

- 3) Materials
  - a) Portland cement shall conform to ASTM C150, C175, or C595.
  - b) Soil shall consist of the material existing at subgrade in the area to be paved, or approved selected soil, or a combination of these materials. The soil shall not contain gravel or stone retained on a three (3) inch sieve, or more than forty-five (45) percent retained on a No. 4 sieve.

- 4) Subgrade Preparation
  - (a) Before constructing the soil cement base, the subgrade shall be prepared to the required lines and grades, including the placement of any additional soil, and the removal and replacement of any unsuitable soil with acceptable soil.
  - (b) The subgrade shall be firm and able to support the construction equipment and specified compaction without any displacement.
  - (c) Any trenches shall be proof rolled and repaired prior to application of the soil cement and/or asphalt paving.
  - (d) All backfill around manholes shall be tamped with sand or gravel to within two (2) feet of finished grade.
- 5) Mix Design
  - (a) Soil samples shall be collected at subgrade elevation by a soils technician or soil's lab representative to conduct a series of proctor's and associated lab reports showing the soil can generate a minimum compressive strength of three hundred and fifty (350) psi in seven (7) days.
  - (b) The soil mix design shall be designed by a soil lab with a registered engineer specifying the design, thickness, and cement content.
  - (c) A copy of the soil cement design, along with the tests noted above shall be submitted to the Engineering Staff prior to any asphalt or concrete placement.
- 6) <u>Cement Application, Mixing and Spreading</u>

The soil, cement, and water shall be mixed by either a mixed in place or central plant mix method. The soil cement shall not be applied when the soil or subgrade is frozen or when the ambient temperature in the shade is not at forty (40) degrees and rising.

The soil cement shall be applied at a rate of ten (10) to twelve (12) percent by weight for soil, and a rate of eight (8) percent to ten (10) percent for gravel, or as dictated by the soils engineer.

The moisture content shall be a minimum of two (2) to three (3) percent above optimum moisture content prior to mixing to allow for hydration, or as directed by the soils engineer.

#### a) Mixed In Place Method

The required amount of cement shall be distributed uniformly on the soil, and all cement that has been displaced shall be replaced before mixing is started. After the cement has been spread, the soil shall be mixed with the cement until it has been sufficiently blended in order to prevent the formation of cement balls when water is applied.

After the soil and cement have been thoroughly mixed, immediately incorporate water into the mixture using a constant water supply source in conjunction with adequate pressure distributing equipment that can apply all required water to the roadway section involved within a three (3) hour period. An excessive concentration of water at or near the surface should be avoided. After application of all mixing water, continue mixing as required to obtain a uniform and intimate mixture of soil, cement, and water.

#### b) <u>Central Plant Method</u>

The soil, cement, and water shall be mixed in a batch with a continuous flow type pugmill equipped with feeding and metering devices that will add the ingredients into the mixer in the required quantities. The soil and cement shall be mixed sufficiently to prevent the formation of cement balls when water is added to the mixture. The result shall be a uniform and intimate mixture of soil, cement, and water.

The combined mixture shall be transported to the roadway section in covered trucks, and placed directly on a moistened subgrade in a uniform layer by using suitable spreader equipment. The dumping of the combined mixture in piles or windows shall not be permitted.

No more than thirty (30) minutes shall elapse between the placement of the soil cement mixture in adjacent lanes at any location, except at longitudinal construction joints, and no more than sixty (60) minutes shall elapse between commencing moist mixing and commencing compaction.

# 7) Laboratory Soil Tests

An approved independent soils testing laboratory shall be hired, at developer's expense, and a soils technician shall be kept on site while soil cement is being placed to evaluate moisture content and rate of application.

- a) A satisfactory soil cement base shall be obtained prior to any placement of asphalt or concrete paving or curb and gutter placement. Laboratory tests, conducted in accordance with AASHTO Test methods T134, T135, and T136 shall be used to determine the following requirements:
  - 1) The minimum amount of cement required to harden the soil adequately.

- 2) The optimum moisture content.
- b) The soil cement base shall be constructed in strict accordance with the requirements established by the soils testing laboratory on the basis of their soils material test.
- c) A set of cylinders shall be made, by the approved soils laboratory, during the mixing of soil cement to determine when the soil cement has reached an unconfined strength of three hundred and fifty (350) psi. A set of cylinders shall be taken on the soil cement being placed every three hundred (300) feet of street length with a minimum of two (2) per project phase.
- (d) A set of cylinders shall consist of six (6) individual cylinders. Cylinders shall be tested at seven (7), fourteen (14), and twenty-eight (28) days and test results shall be submitted to the Engineering Staff for approval.
- (e) The soil cement must have a minimum unconfined compressive strength of three hundred and fifty (350) psi, in seven (7) days or prior to the placement of binder. If the developer would like to place binder sooner than seven (7) days, no sooner than seventy-two (72) hours after placement, two (2) extra cylinders shall be made to test the soil cement and verify its unconfined compressive strength. If the soil cement has reached a minimum unconfined strength of three hundred and fifty (350) psi seventy-two (72) hours after placement, then the developer may proceed with the placement of the binder.
- 8) Equipment

The developer or his/her contractor shall provide suitable construction equipment that can construct the soil cement base as specified by the approved soils testing laboratory.

9) Pulverization

The soil shall be pulverized so that after the moist-mixing, one hundred (100) percent by dry weight will pass through a one (1) inch sieve, and at least eighty (80) percent can pass through a No. 4 sieve, exclusive of the gravel or stone retained on these sieves.

#### 10) Compaction

At the start of compaction, the percentage of moisture in the mixture and in any unpulverized soil lumps, based upon over dry weights, shall be no more or less than three (3) percentage points above or below, the required optimum moisture, and not less than the quantity that will cause the soil cement mixture to become unstable during compacting and final grading. Prior to beginning of compaction, the mixture shall be in a loose condition through its full depth.

The loose mixture shall be uniformly compacted to one hundred (100) percent of the standard proctor density within a two (2) hour period.

#### 11) Final Grading

After the soil cement has been compacted to the required density, it shall be shaped to the required lines and grades. If necessary, the surface shall be lightly scarified to remove any marks left by equipment, and the resulting surface shall be recompacted to the required density.

The moisture content of the soil cement shall be within plus or minus three (3) percentage points of the optimum moisture content throughout final grading operations.

The surface compaction shall be completed within a two (2) hour period in order to provide a smooth, dense surface free of contraction planes, cracks, ridges, or loose material.

Any portions of the roadway section surface that do not meet the required density shall be corrected during final grading. The soil cement shall be primed immediately after mixing to prevent premature drying and cracking.

#### 12)Curing

The finished soil cement shall be protected from drying until the soil cement has reached an unconfined compressive strength of three hundred and fifty (350) psi. Within twenty-four (24) hours after final grading, approximately 0.2 gallons of bituminous material (prime coat) per square yard of base surface should be applied to the roadway section using approved heating and distributing equipment.

Water shall be continuously applied as required to keep the soil cement moist until the bituminous material is placed. Any surface voids should be filled immediately before applying the bituminous material in order to prevent penetration of the bituminous material during its application.

The exact bituminous material application rate and temperature shall be as required for complete coverage without excessive runoff.

The roadway sections shall be barricaded from all traffic during the required curing period.

- 4. Foundation/Binder Course (Refer to Street Minimum Thickness Illustrations)
  - (f) The foundation/binder course shall be placed prior to the final approval of a final plat, and shall be composed of a hot mixture of aggregate and asphalt (hot mix) that shall be Grade BM-2 as specified in Section 307 of the Tennessee Department of Transportation <u>Standard Specifications for Road and Bridge</u> <u>Construction</u>, 2006 edition, and any subsequent edition.
  - (g) Materials, construction equipment, and construction procedures shall be as specified in Section 307 of the Tennessee Department of Transportation <u>Standard Specifications for Road and Bridge Construction</u>, 2006 edition, and any subsequent edition. The foundation/binder course shall not be applied when the outside natural temperature is below forty (40) degrees.
  - (h) The foundation/binder course shall be compacted to a minimum of 92% of Maximum Theoretical Density.
  - (i) The compacted thickness of the foundation/binder course shall be no less than two (2) inches for all streets.
  - (e) The foundation/binder course shall be randomly tested for density and thickness every 300 feet of street length with a minimum of three (3) tests per project phase.
- 5. <u>Final Pavement/Wearing Surface</u> (Refer to Minimum Thickness Illustrations)
  - (a) A final pavement/wearing surface shall be installed by the developer on all subdivision streets. The final pavement/wearing surface shall consist of an asphaltic pavement (hot mix) composed of a mixture Grade D or E, as specified in Section 411 of the Tennessee Department of Transportation <u>Standard Specifications for Road and Bridge Construction</u>, 2006 edition, and any subsequent edition. The final pavement/surface course shall not be applied when the outside natural temperature is below forty-five (45) degrees.
  - (b) The final pavement/wearing surface shall be applied at a minimum of one hundred ten (110) pounds per square yard per inch of thickness.
  - (c) The compacted thickness of the final pavement/wearing surface shall be no less than one and one-quarter (1<sup>1</sup>/<sub>4</sub>) inches for local/minor and sub-collector level streets, and two (2) inches for collector and arterial level streets.
- 6. <u>Curb and Gutter (Refer to Integral Curb and Gutter Details Illustrations)</u>
  - (a) The developer shall provide integral vertical or rolled curb and gutter on all subdivision streets. However, rolled curb shall not be permitted on arterial level or any commercial streets.

- (b) Vertical curbs shall be six (6) inch curbs with twenty-four (24) inch integral gutters.
- (c) Rolled curbs may either be four (4) or six (6) inch rolled curbs with fifteen (15) inch integral gutters.
- (d) All curbs shall have a five (5) percent slope to the face of the curb.
- (e) All curbs shall be backfilled to the top of the curb extending for a distance of at least three (3) feet from the curb.
- (f) Materials, equipment, and construction requirements shall be as specified in Section 702 of the Tennessee Department of Transportation <u>Standard</u> <u>Specifications for Road and Bridge Construction</u>, 2006 edition, and any subsequent edition.
- (g) Concrete for curb and gutter and sidewalk shall be a minimum 3000 psi at 28 days and shall be tested for consistency and strength in accordance with AASHTO test methods T 119, T 22 and T 23. The tests shall be performed every 800 feet of street length with a minimum of one (1) test per day.

The developer shall not be required to install curb and gutter on existing paved streets. However, unimproved existing rights-of-way proposed as access to a development shall be improved with curb and gutter by the developer.

7. <u>Sidewalks (Refer to Standard Sidewalk Details in Illustrations)</u>

For the safety of pedestrians and to provide a means of non-vehicular movement, the installation of sidewalks shall be required in all subdivision developments with access to public sanitary sewer system and curb and gutter.

The following standards shall apply:

- 1. Sidewalks shall be constructed on both sides of all new streets at developers' expense with the exception of local/minor residential level streets.
- 2. Sidewalks shall be located at the back of the curb for local/minor commercial and all sub-collector level streets. An appropriate grass furnishing zone shall be provided behind the curb before sidewalk installation for all collector and arterial level streets (See attached Street Cross-Section Illustrations for exact furnishing zone width required).
- 3. Sidewalks shall be constructed with a minimum 3000 PSI, Class A, concrete or other material, as approved by the City of Three Way. All concrete sidewalks shall have a minimum thickness of four (4) inches. The subgrade under the sidewalk shall be compacted to 90% Standard Proctor Density.

- 4. Concrete for curb and gutter and sidewalk shall be a minimum 3000 psi at 28 days and shall be tested for consistency and strength in accordance with AASHTO test methods T 119, T 22 and T 23. The tests shall be performed every 800 feet of street length with a minimum of one (1) test per day.
- 5. All sidewalks installed shall be a minimum of five (5) feet in width.
- 6. Materials, equipment, and construction requirements shall be as specified in Section 701 of the Tennessee Department of Transportation <u>Standard</u> <u>Specifications for Road and Bridge Construction</u>, 2006 edition, and any subsequent edition.
- 7. <u>Sidewalk Construction Alternatives:</u>

Either of the following alternatives may be used for the construction of sidewalks:

- a. Sidewalks may be installed by the developer along with street construction prior to final plat approval.
- b. The installation of sidewalks may be assigned by the developer to the builder of structures on a parcel of land within the development after the date of final plat approval provided a Financial Guarantee meeting the specifications of these Subdivision and Land Development Regulations is established by the developer and accepted by the Planning Commission.
- 8. The construction of sidewalks is not required in new subdivisions that do not have access to the public sanitary sewer system, however, if the developer should choose to install sidewalks in these type subdivisions, the construction shall adhere to the construction standards contained within these Subdivision and Land Development Regulations.
- 8. <u>Curb Ramps (Refer to Curb Ramp Detail Illustrations)</u>

The developer shall install adequate curb ramps meeting the requirements of the American with Disabilities Act (ADA) at all intersections and crosswalks so as to provide an easy transition from the sidewalk and the street for all persons, especially those who may be physically challenged in wheelchairs or may have difficulty making the required step up or down from curb level to street level.

The term "ramp" shall mean a sloping concrete surface, from the level of the sidewalk or curb to the level of the street at curbside, extending outward and downward from the curb to the street for such a distance, angle, and width as will adequately facilitate the easy movement up or down such ramp.

9. <u>Bike Lanes (Refer to Street Cross Section Illustrations)</u>

In order to comply with federal transportation planning provisions, and to provide a means of non-vehicular movement, the installation of bike lanes shall be required in all subdivision developments. The developer shall install bike lanes as an additional paved, striped, and signed lane within the curb and gutter area of the roadway on all collector and arterial level streets. Bike lanes will not be required on sub-collector or local/minor level streets, however, if the developer desires to install bike lanes, additional right-of-way will be required to accommodate these improvements. The width of a bike lane for a collector level street shall be no less than three (3) feet in width.

## 10. Inspections, Testing, and Material Certifications

- (a) All street and road construction shall be inspected by the Engineering Staff. Prior to the start of construction, the developer shall contact the Engineering Staff to develop an inspection schedule.
- (b) All street and road construction shall be tested by a licensed independent material testing company to ensure compliance with compaction requirements and to ensure the minimum thickness of base and pavement. A copy of the test results shall be forwarded to the Engineering Staff and labeled as: "<u>Test</u> <u>Reports, 'Subdivision name', Three Way, Tennessee.</u>"
- (d) The contractor(s) and/or supplier(s) furnishing base material, concrete, binder surface, and/or pavement surface shall furnish to the Engineering Staff written certification that the materials used in the construction of streets developed under these Subdivision and Land Development Regulations meet or exceed the appropriate specifications.
- (e) No improvements will be forwarded for acceptance by the City of Three Way or Madison County that have not been inspected and deemed acceptable by the Engineering and Planning Staff.

#### E. Installation of Public Utilities

After grading is completed and approved and before any base is applied all of the underground work: water mains, sewers, gas mains, underground electric conduit, etc., and all water and sanitary sewer service connections shall be installed completely and approved throughout the length of the roadway. The developer shall be responsible for ensuring that proper compaction is obtained in all utility trenches within street rights-of-ways.

Any fees for the provision and installation of electrical, water, sanitary sewer, natural gas, telephone, telecommunications, and cable television services shall be as determined by the current operating policy of the appropriate utility.

All utilities shall be designed and installed in accordance with appropriate state, local, and utility agency requirements.

#### 1. Water Distribution System

A water distribution system meeting the requirements of the Jackson Energy Authority (JEA), or the Madison County Health Department, shall be constructed by the developer in accordance with the current design and installation policies and procedures of the appropriate utility.

All water distribution systems shall include all water pipes of a diameter needed to supply sufficient pressure and volume for fire protection and provide adequate domestic service to each lot platted as a part of the subdivision.

Where large rural lots are served by individual wells, a separate well shall be provided for each lot, and each well shall meet the approval of the Madison County Health Department.

#### 2. <u>Waste Water System</u>

A waste water system meeting the requirements of the Jackson Energy Authority (JEA), or the Madison County Health Department shall be constructed by the developer in accordance with the current design and installation policy and procedures of the appropriate utility.

All waste water systems shall include all necessary mains, sub-mains, laterals, individual lot connections, manholes, pumping stations, and other appropriate sewer facilities as required by the state and JEA regulations. All manhole tops shall be installed flush with the asphalt foundation/binder course, and raised to be flush with the final/wearing surface asphalt at which time it is installed.

Where individual sewage disposal systems (septic tanks) are to be provided, they shall be designed and constructed as required by all appropriate state and Madison County Health Department regulations.

#### F. Assurance for Completion and Maintenance of Improvements

#### 1. Standard Subdivision Contract

A Standard Subdivision Contract shall be executed between the developer and the City of Three Way or Madison County when subdivision improvements, as described in these Subdivision and Land Development Regulations, are required. The owner/developer shall provide the improvements as specified in the contract.

#### (a) Expiration and Extension

If the developer, due to unforeseen circumstances, is unable to complete all improvements required under the contract in the time specified, the developer shall submit a written request for an extension of the contract to the Planning Staff at least sixty (60) days prior to the expiration of the existing contract. The request shall specify the reason for failure to complete the work as agreed, and a prospective date for its completion. Requests for extension shall be approved or rejected by the Planning Staff. If the financial guarantee provided in lieu of the installation of improvements is inadequate to cover the cost of said uncompleted improvements at the time the extension is sought, the developer shall provide additional security to cover current cost projections as made by the Engineering Staff. Failure to follow this extension procedure constitutes a breach of the contract and places the developer in violation of these Subdivision and Land Development Regulations.

#### (b) Property Transfer and/or Assumption Contract

Prior to transferring the rights and obligations of all, or a portion of a standard subdivision contract, the developer shall notify the Planning Staff when the transfer is to occur and the name and address of the transferee. The developer shall provide the Planning Staff with an assumption agreement by which the transferee agrees to perform the work required under the Standard Subdivision Contract, and to provide additional security needed to assure such performance. Said assumption agreement shall be subject to the review of the city attorney and subject to approval of the City of Three Way or Madison County.

#### 2. Financial Guarantees in Lieu of Improvements (Performance)

To assure performance of the Standard Subdivision Contract, and in lieu of final completion of all improvements required by these Subdivision and Land Development Regulations, the Planning Commission may accept a financial guarantee in lieu of the completion of certain improvements whereby such improvements may be installed without cost to the City of Three Way or Madison County in the event of default by the developer under the Standard Subdivision Contract or in violation of these Subdivision and Land Development Regulations. However, at a minimum, the following improvements shall be installed and approved before a financial guarantee may be accepted:

- All water and sanitary sewer lines shall be installed and approved and as-built plans for such lines shall be submitted to JEA.
- All storm water drainage facilities shall be installed.
- All streets shall be completed to the required cross-section and approved through the two (2) inch foundation/binder course.
- All street signs and street name signs shall be installed.
- All off-site required improvements, if applicable shall be installed.

- (a) The Planning Commission may accept one of the following forms of financial guarantees:
  - <u>A Certificate of Deposit</u>

The Certificate of Deposit must be in the name and tax id number of the developer, and the City of Three Way or Madison County must be added as an additional party to the security. The certificate of deposit must be automatically renewable.

• <u>A Certified Check</u>

The certified check must be made payable to the City of Three Way or Madison County, as the case may be, depending on the location of the subdivision.

- (b) In determining the basic cost of improvements the Planning Commission shall utilize material estimates provided by the Engineering Staff based on either current TDOT unit prices or other historical actual costs for completing the improvements to the required standards.
- (c) Financial Guarantees must be accepted by the Planning Commission prior to or in conjunction with the final plat approval.
- (d) No financial guarantee may be partially withdrawn by the developer.
- (e) The performance security shall not be released until the Engineering Staff has inspected all of the improvements, and they are determined to have been satisfactorily completed in accordance with the Standard Subdivision Contract and these Subdivision and Land Development Regulations.

#### 3. Warranty of Improvements (Maintenance)

After the satisfactory completion of all improvements, as required under the Standard Subdivision Contract, the developer shall warranty the improvements for a period of twelve (12) months from the date of acceptance by the City of Three Way or Madison County to guarantee and warrant that all improvements in the subdivision will remain free from defects caused by faulty material or workmanship.

The amount of the warranty shall consist of one of the approved forms of financial security and shall be in an amount not less than ten (10) percent of the cost of the installation of the street improvements.

#### END ARTICLE VII

# Article VIII | Administration and Enforcement

## A. Powers of the Regional Planning Commission

These Subdivision and Land Development Regulations are approved in accordance with the provisions granted under Chapter 14, Title 13, <u>Tennessee Code Annotated</u> (TCA), which grants to the Planning Commission the power to regulate the subdivision of land within the City of Three Way and its Planning Region. Therefore, in accordance with TCA Section 13-4-102, the Planning Commission, its members and employees, in the performance of its work, may enter upon any land and make examinations and surveys, and place and maintain necessary monuments and marks thereon. The TCA further provides that, in general, the Planning Commission shall have powers as may be necessary to enable it to perform its purposes and to promote municipal and regional planning.

#### B. Enforcement of Regulations

The enforcement of these regulations is provided for by state law in the authority granted by public acts of the State of Tennessee.

#### 1. Submission of Subdivision Plat for Approval

No plat of a subdivision of land into two (2) or more lots or tracts located within the City of Three Way or its Planning Region shall be admitted to the land records of Madison County or received or recorded by the Madison County Register of Deeds until such plat shall have been submitted to and approved by the Planning Commission and such approval entered in writing on the plat by the Secretary of the Commission as provided in TCA Section 13-4-302.

#### 2. Acceptance and Improvement of Unapproved Streets

No board, public official, or authority shall accept, layout, open, improve, grade, pave or light any street, or lay, authorize water mains or sewers or connections to be laid in any street within the City of Three Way or its Planning Region unless such shall have otherwise received the legal status of a public street prior to adoption of these Subdivision and Land Development Regulations, or unless such street corresponds in its location and alignment to a street depicted on an approved subdivision plat as provided in TCA 13-4-307, however, the Three Way Board of Alderman or the Madison County Commission may locate and construct or may accept any other street it deems necessary for the public welfare, provided that the ordinance or resolution for such street construction or acceptance is first submitted to the Planning Commission for its approval. If the Planning Commission disapproves such ordinance or resolution, a majority vote of the entire membership of the Board of Alderman or County Commission can render such approved. A street approved by the Planning Commission or constructed or accepted by said majority vote shall have the status of an approved street as fully as though it had been originally shown on a subdivision plat approved by the Planning Commission.

## 3. Access to Lots by Public Way or Private Easement

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, such easement shall be at least fifty (50) feet in width from and after the time of adoption of these Subdivision and Land Development Regulations and shall not be used to provide access to more than one lot or tract of land.

This shall not be construed to prohibit the development of buildings on lots or tracts without permanent access provided by private ways when such development is in the form of condominium ownership and such private improvements have been approved by the Planning Commission and will be in private ownership and control in perpetuity.

#### C. Penalties for Violation

The penalties for the filing or recording of a plat, transfer or sale of land, and erection of a building in violation of these Subdivision and Land Development Regulations are provided for by state law in authority granted by Public Acts of the State of Tennessee.

## 1. <u>Recording of an Unapproved Subdivision Plat</u>

No County Register of Deeds shall receive, file, or record a plat of a subdivision within the City of Three Way or its Planning Region without the approval of the Planning Commission as required in TCA Section 13-4-302, and any County Register of Deeds so doing shall be deemed guilty of a misdemeanor punishable as other misdemeanors as provided for by state law.

#### 2. <u>Transfer or Sale of Land without Prior Subdivision Approval</u>

Tennessee Code Annotated Section 13-4-306 provides that 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 a plat of such 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 Madison County Register of Deeds, shall be deemed guilty of a misdemeanor punishable as other misdemeanors as provided for by law. A description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring such land shall not exempt the transaction from such penalties. The City of Three Way or Madison County through its attorney or other official designated by the City or County may enjoin such transfer or sale or agreement by action or injunction.

#### 3. Unlawful Structures

Any building erected or to be erected in violation of these Subdivision and Land Development Regulations shall be deemed an unlawful structure, and the Building Inspector or the Attorney of the City or County or any other official designated by the City or County may bring action to enjoin such erection or cause it to be vacated or removed as provided for in TCA Section 13-4-308.

#### D. Provision of Regulations Declared to be Minimum Requirements

In their interpretation and application, the provisions of these Subdivision and Land Development Regulations shall be held to be the minimum requirements adopted for the public interest and orderly development of the City of Three Way or Madison County. Wherever the requirements of these Subdivision and Land Development Regulations are at variance with the requirements of any other lawfully adopted rules, regulations, ordinances, or deed restrictions, the most restrictive or that imposing the higher standards shall govern.

#### E. Subdivision Review Fee Schedule

No plat or plan of a subdivision of land divided into two (2) or more lots located within the City of Three Way or its Planning Region shall be received or reviewed for recommendation or approval given thereon until an application fee and the following schedule of uniform review fees prescribed below have been received. Said fees offset the cost of field inspections, plat reviews, engineering inspections, etc., and shall be paid at the time of submission to the Planning Commission.

## City of Three Way Review Fees

- (a) Preliminary Development Plat \$200.00
- (b) Construction Plat \$525.00
- (c) Final Plat \$275.00
- (d) Minor Final Plat \$150.00
- (e) Revised Final Plat \$75.00

# Three Way Planning Region Review Fees

- (a) Preliminary Development Plat \$200.00
- (b) Construction Plat \$525.00
- (c) Final Plat \$275.00
- (d) Minor Final Plat \$150.00
- (e) Revised Final Plat \$75.00

#### END ARTICLE VIII

# Article IX | Adoption and Effective Date

Before adoption of these Subdivision and Land Development Regulations, a public hearing, as required by TCA Section 13-303 and Section 13-603, was afforded any interested person (s) and was held on <u>June 7, 2010</u>. Notice of such hearing was announced in the *Jackson Sun*, being a newspaper of general circulation within the City of Three Way, on <u>May 7, 2010</u> and stated the time and place for the hearing.

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

Introduced: May 3, 2010

Adopted: <u>June 7, 2010</u>

Effective: June 7, 2010

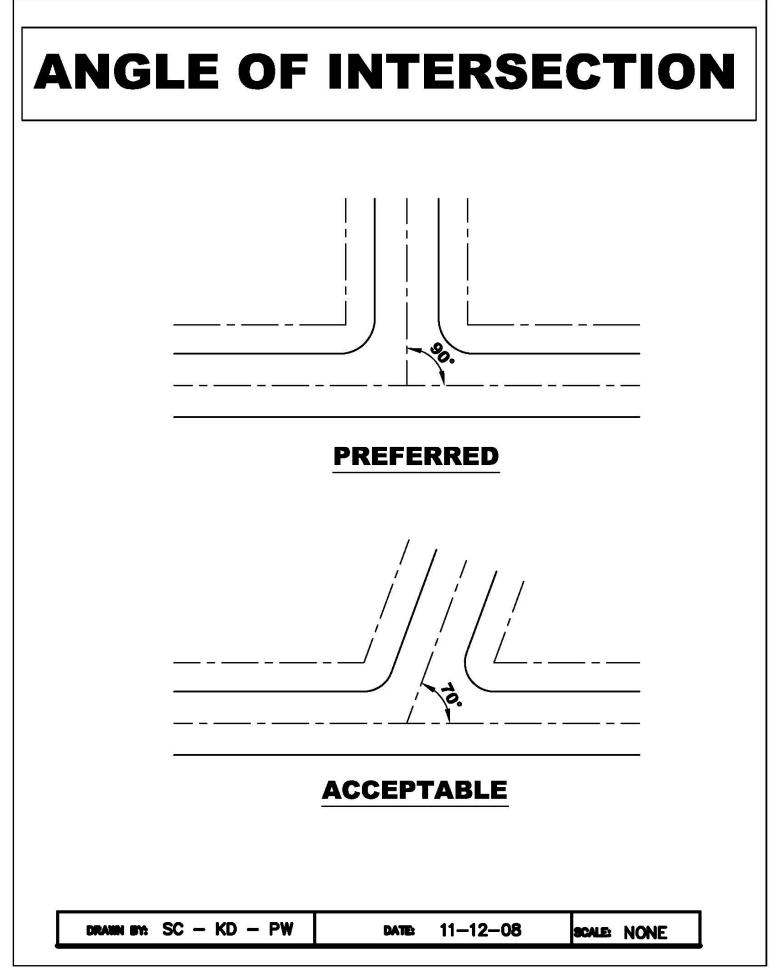
#### END ARTICLE IX

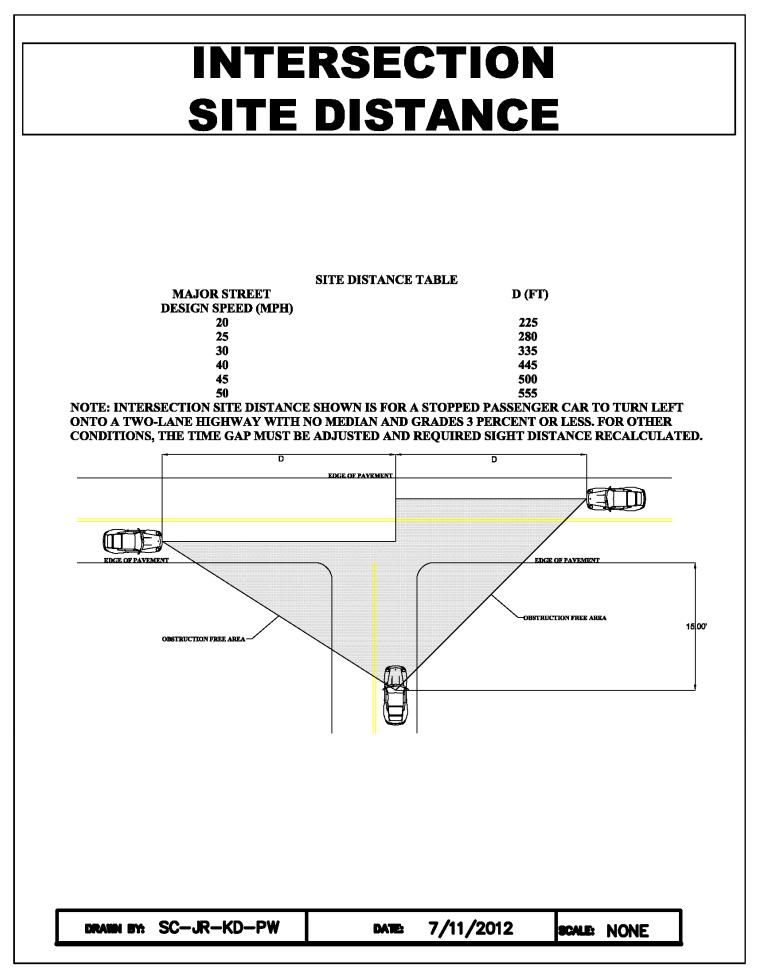
# Article X | Amendments

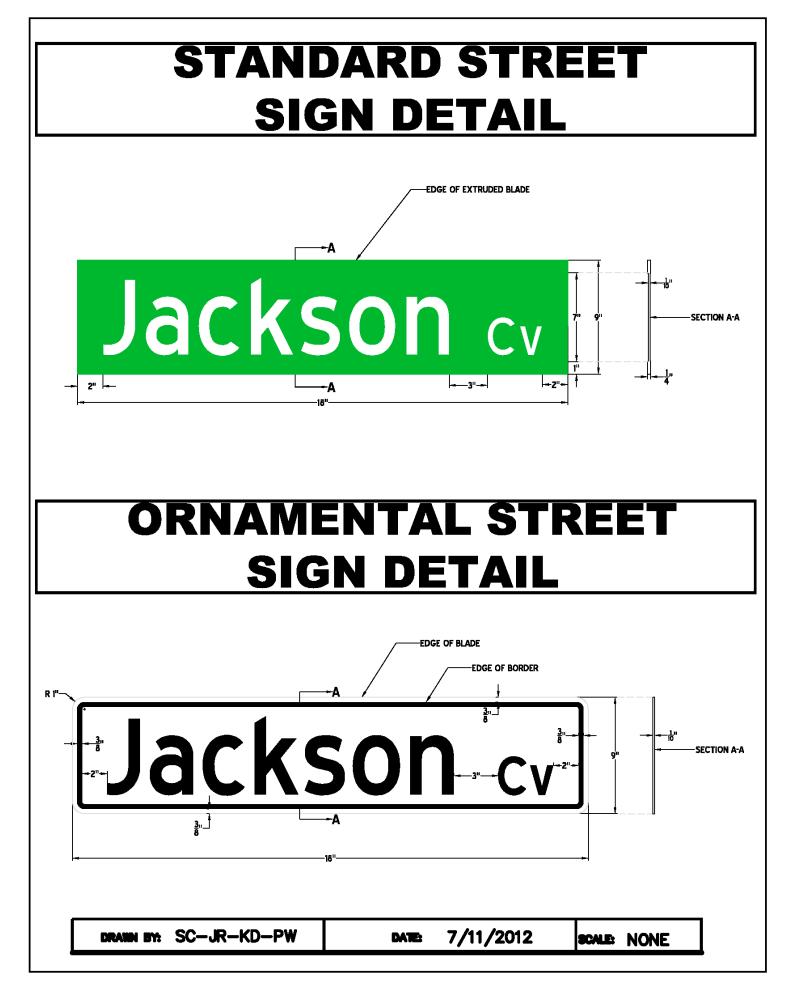
- Approved 12/1/2014 Article VII. REQUIRED INSTALLATION OF PUBLIC IMPROVEMENTS, D. Street Construction Procedures and Specifications, 6. Curb and Gutter (c and d), relative to curb height and gutter slope.
- 2) Approved 12/1/2014 Article VI. MINIMUM DESIGN STANDARDS, E. Street Signs, C. Sign Face (5 and 8), relative to sign face background color and lettering color.
- Approved 12/1/2014 Article VI. MINIMUM DESIGN STANDARDS, E. Street Signs, C. Standard Sign Face D. Ornamental Sign Face, and N. Street Intersection Design, 4) Intersection Sight Distance, relative to sign blank thickness and sight distance requirement.
- 4) Approved 12/1/2014 Article VII. REQUIRED INSTALLATION OF PUBLIC IMPROVEMENTS, D. Street Construction Procedures and Specifications, 3. Pavement Base Preparation (i) Alternate Base Preparation (Soil Cement) and 6. Curb and Gutter.
- 5) Approved 12/1/2014 Appendix G. Construction Drawing Notes updated JEA Notes.
- Approved 12/1/2014 Article VII. REQUIRED INSTALLATION OF PUBLIC IMPROVEMENTS, F. Assurance of Completion and Maintenance of Improvements, 2. Financial Guarantees in Lieu of Improvements (Performance) (a).
- 7) Approved 12/1/2014 Amended various sections to include newly created Three Way Planning Region.

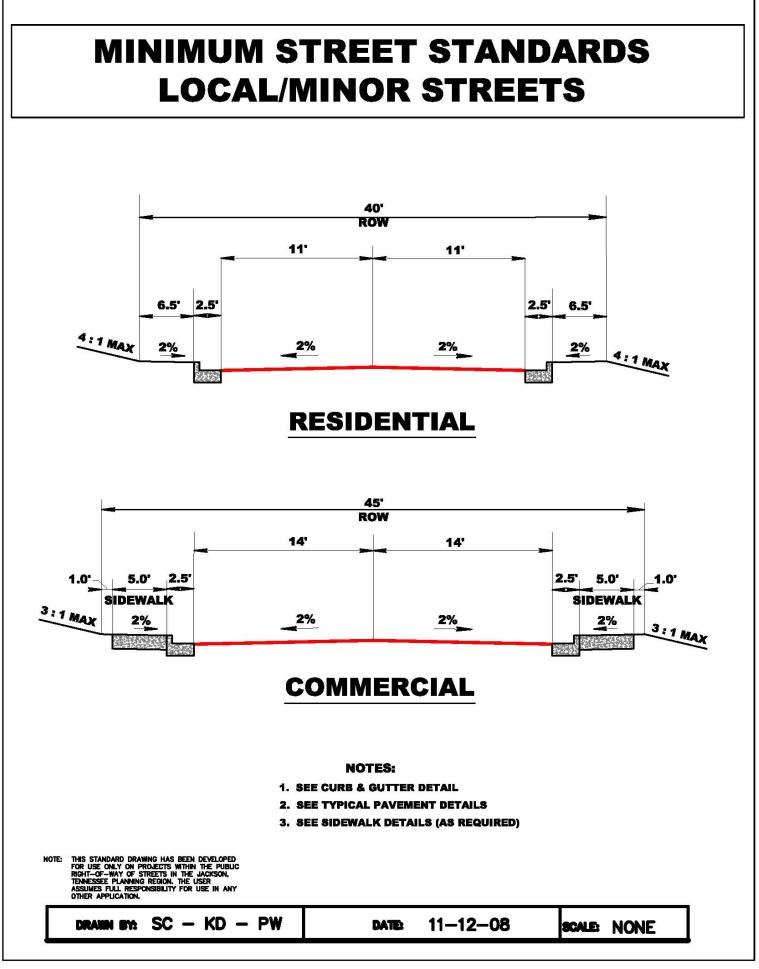
#### **END ARTICLE X**

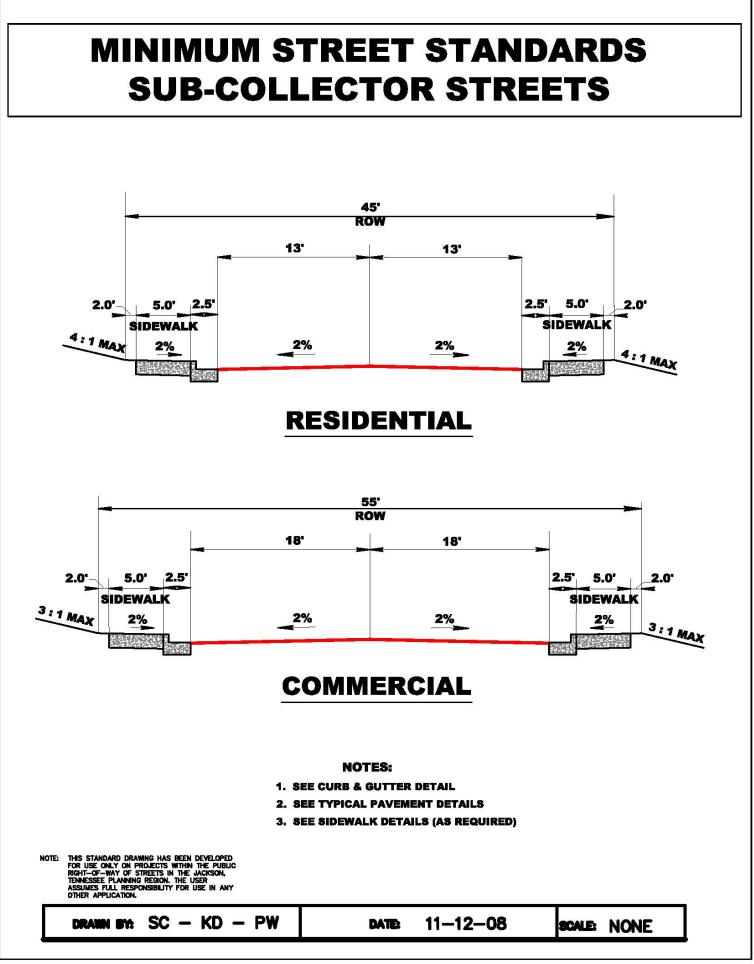
# **ILLUSTRATIONS**

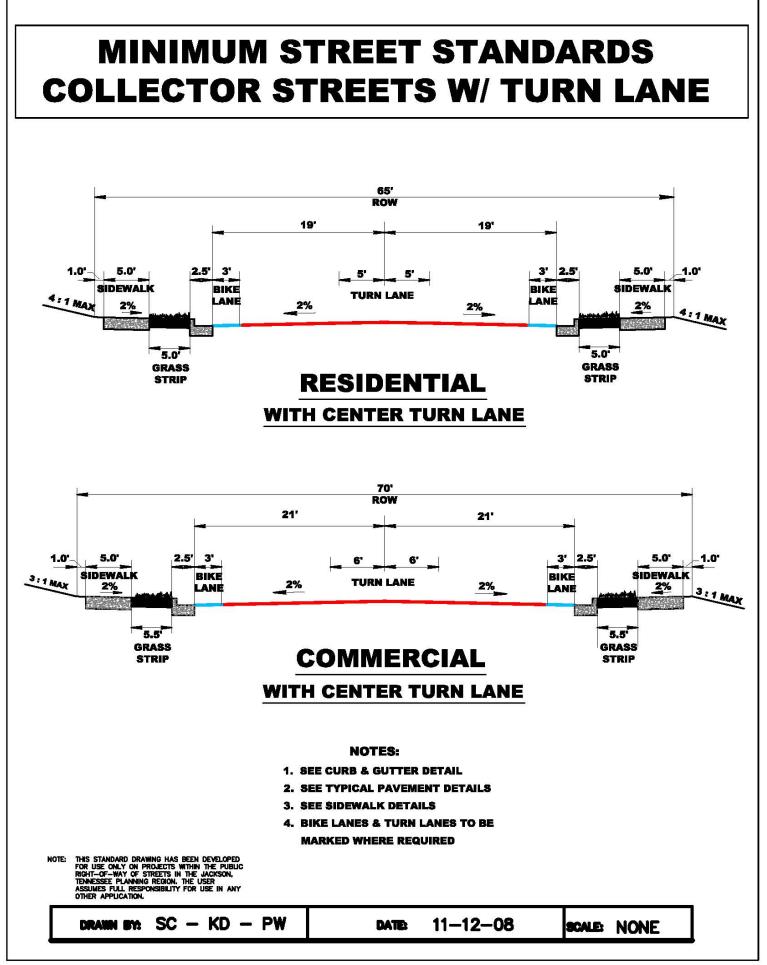


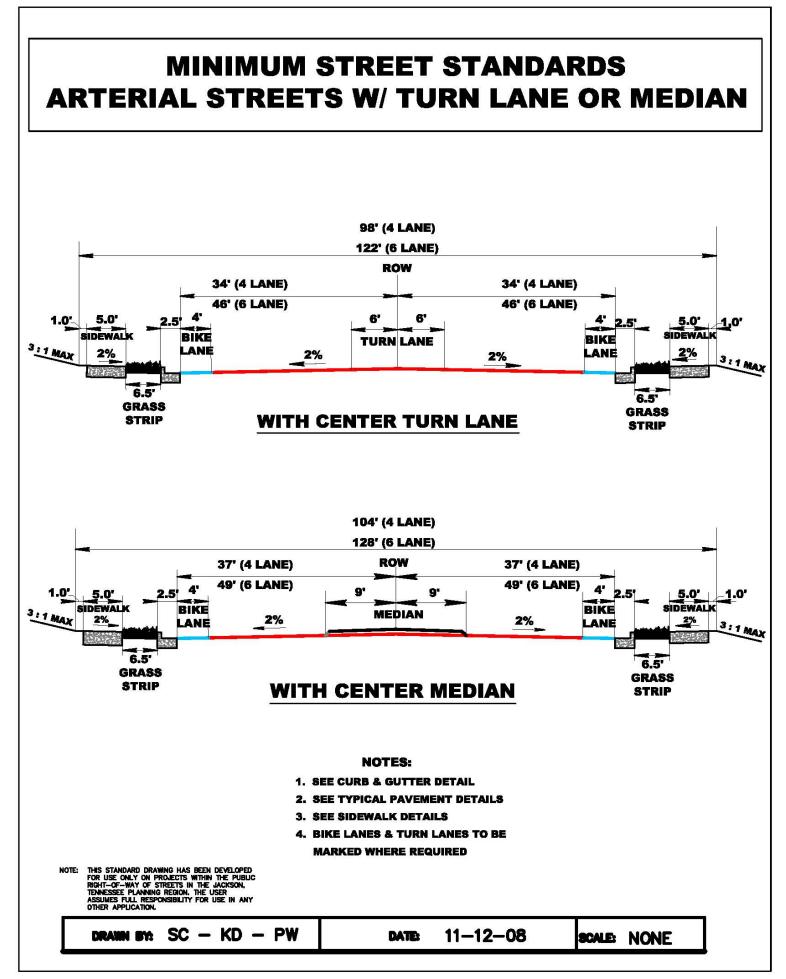


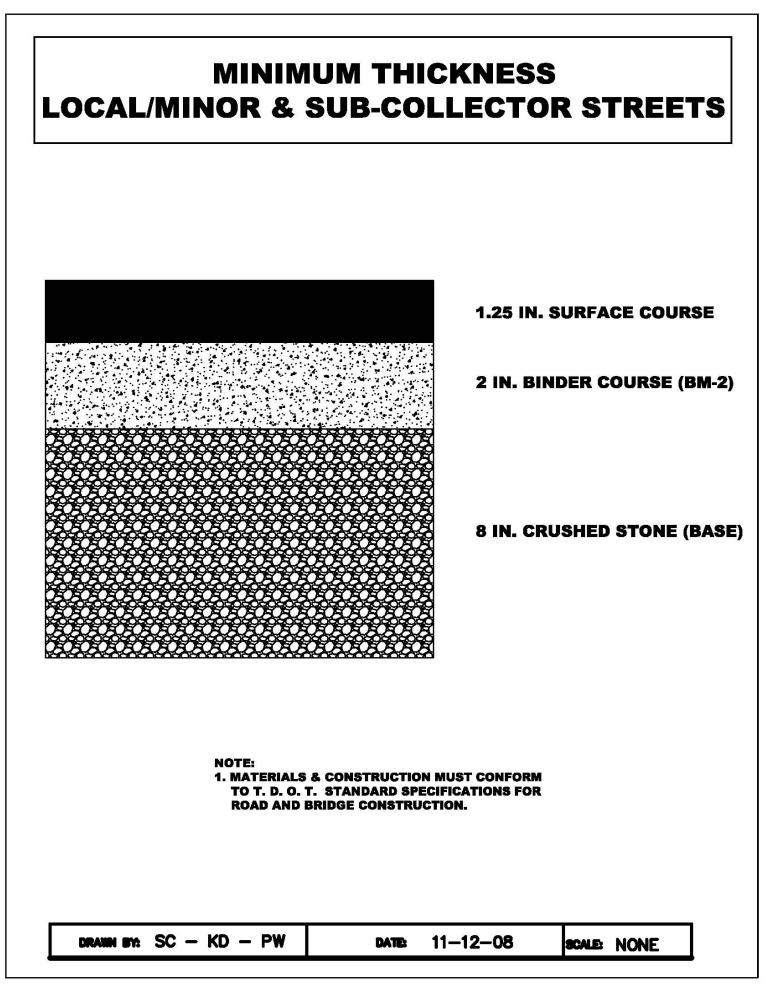






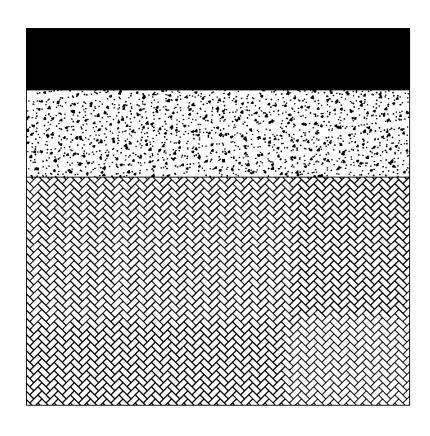






## MINIMUM THICKNESS LOCAL/MINOR & SUB-COLLECTOR STREETS SOIL CEMENT BASE

NOTE: THIS STANDARD DRAWING HAS BEEN DEVELOPED FOR USE ONLY ON PROJECTS WITHIN THE PUBLIC RIGHT-OF-WAY OF STREETS IN THE JACKSON, TENNESSEE PLANNING REGION. THE USER ASSUMES FULL RESPONSIBILITY FOR USE IN ANY OTHER APPLICATION.



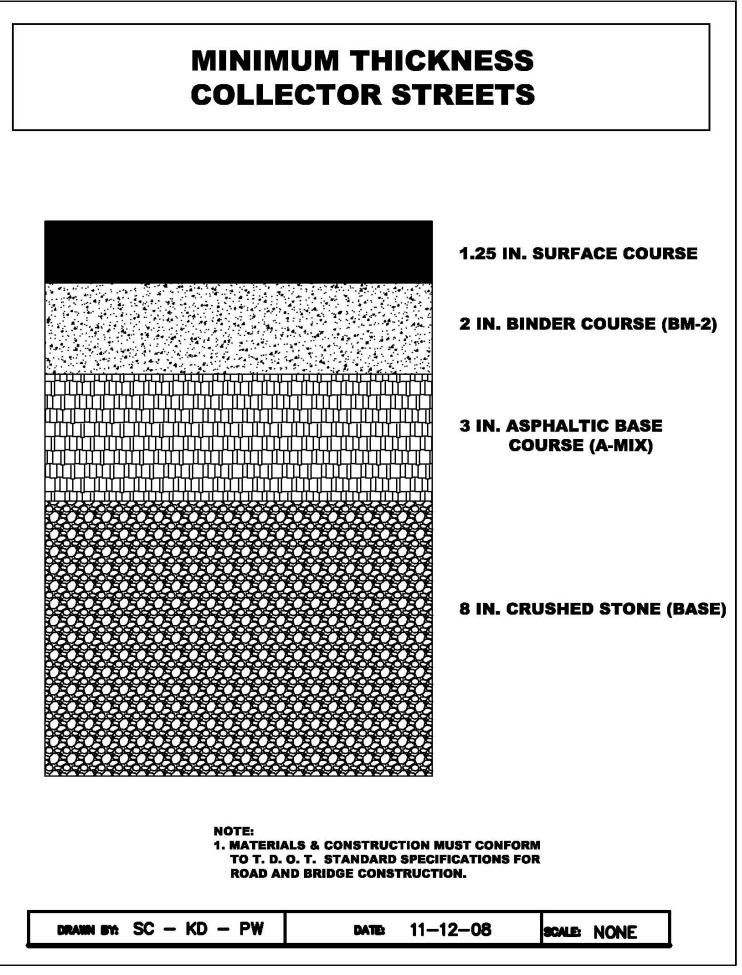
**1.25 IN. SURFACE COURSE** 

2 IN. BINDER COURSE (BM-2)

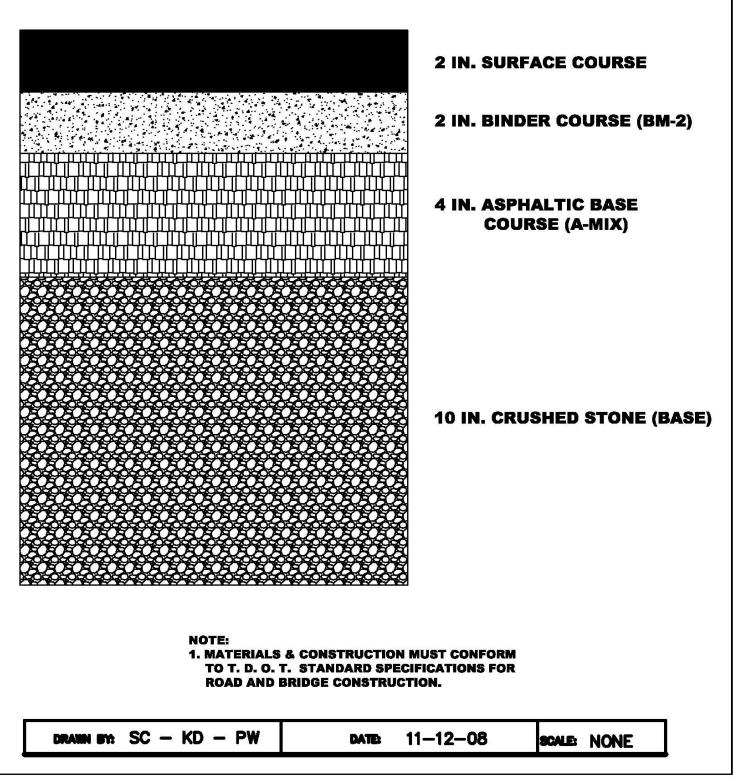
### **6 IN. SOIL CEMENT BASE**

NOTE: 1. MATERIALS & CONSTRUCTION MUST CONFORM TO T. D. O. T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

DRAMM BY: SC - KD - PW	DATE: 11-12-08	SCALE: NONE
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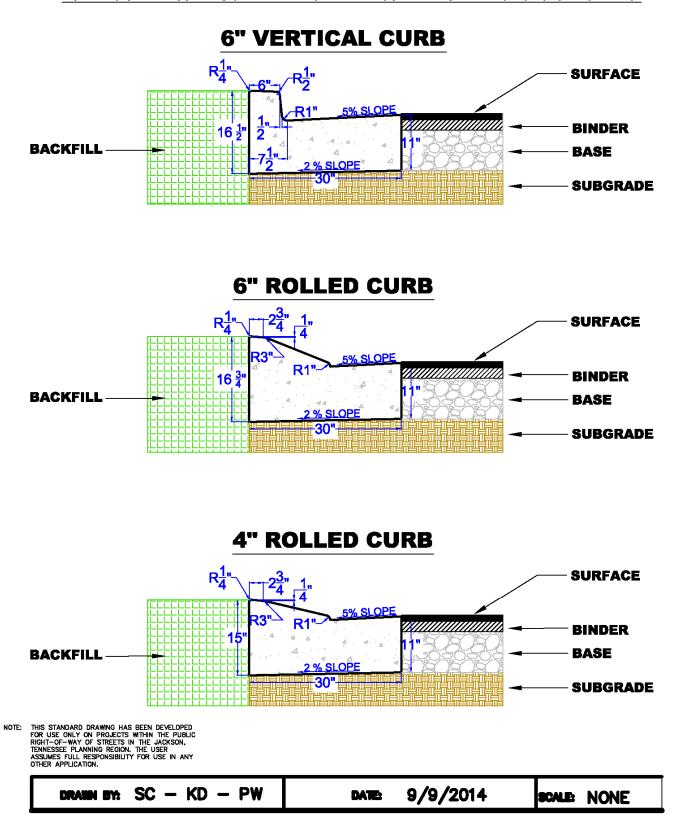


## MINIMUM THICKNESS ARTERIAL STREETS



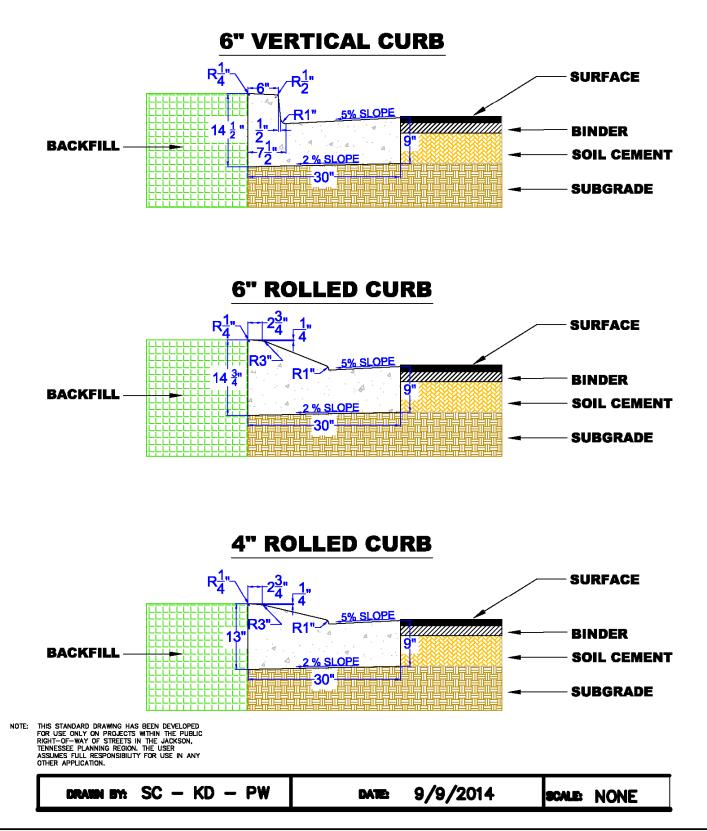
## INTEGRAL CURB & GUTTER DETAILS GRAVEL BASE

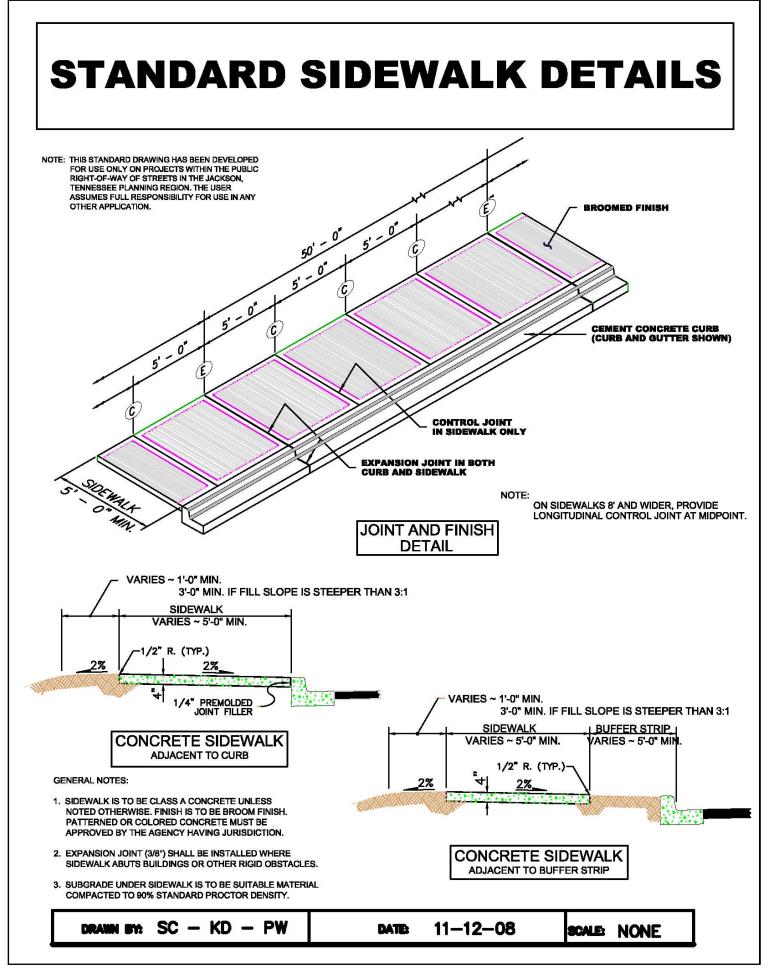
NOTE: NO STREET CURBING SHALL BE ALLOWED WITHOUT THE INSTALLATION OF STORM SEWERS.

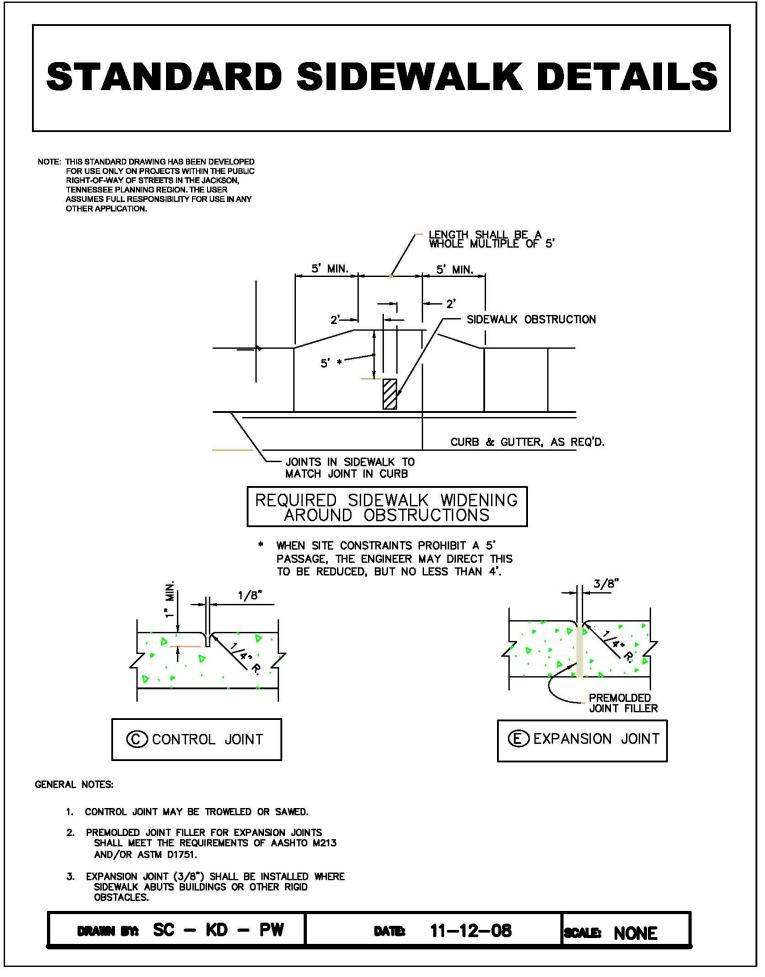


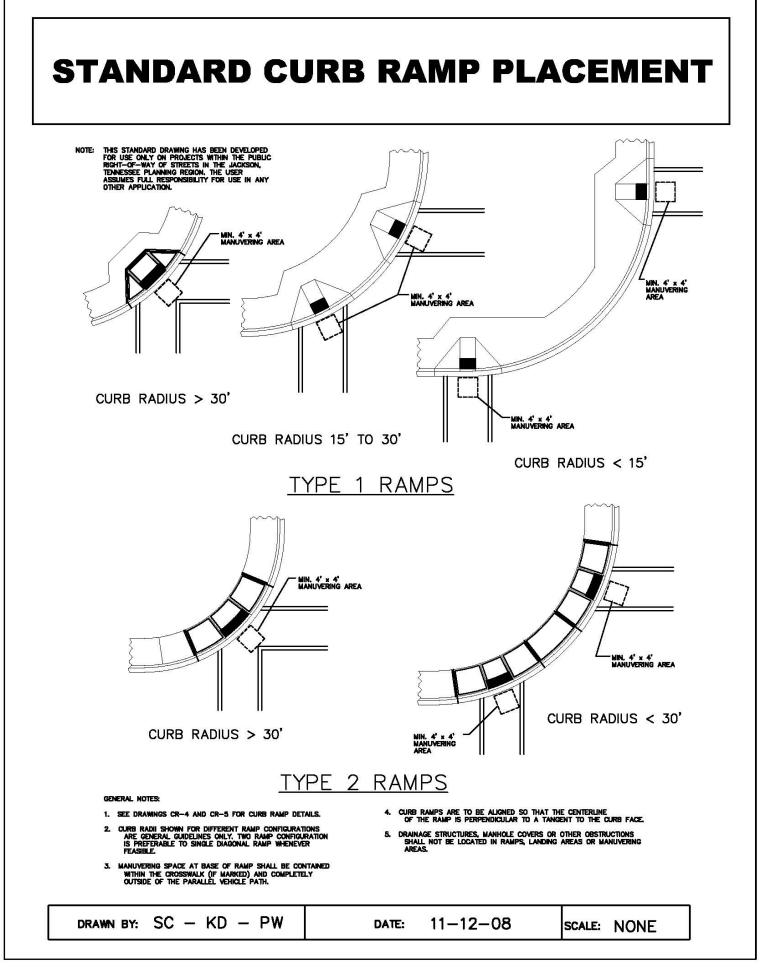
# INTEGRAL CURB & GUTTER DETAILS SOIL CEMENT BASE

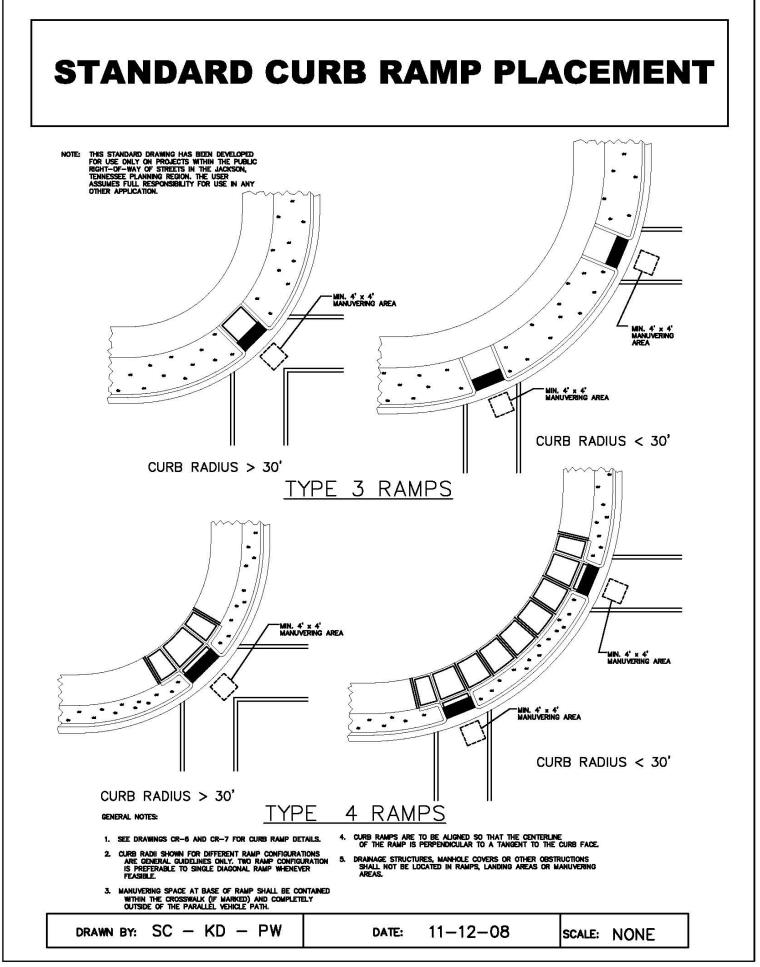
NOTE: NO STREET CURBING SHALL BE ALLOWED WITHOUT THE INSTALLATION OF STORM SEWERS.

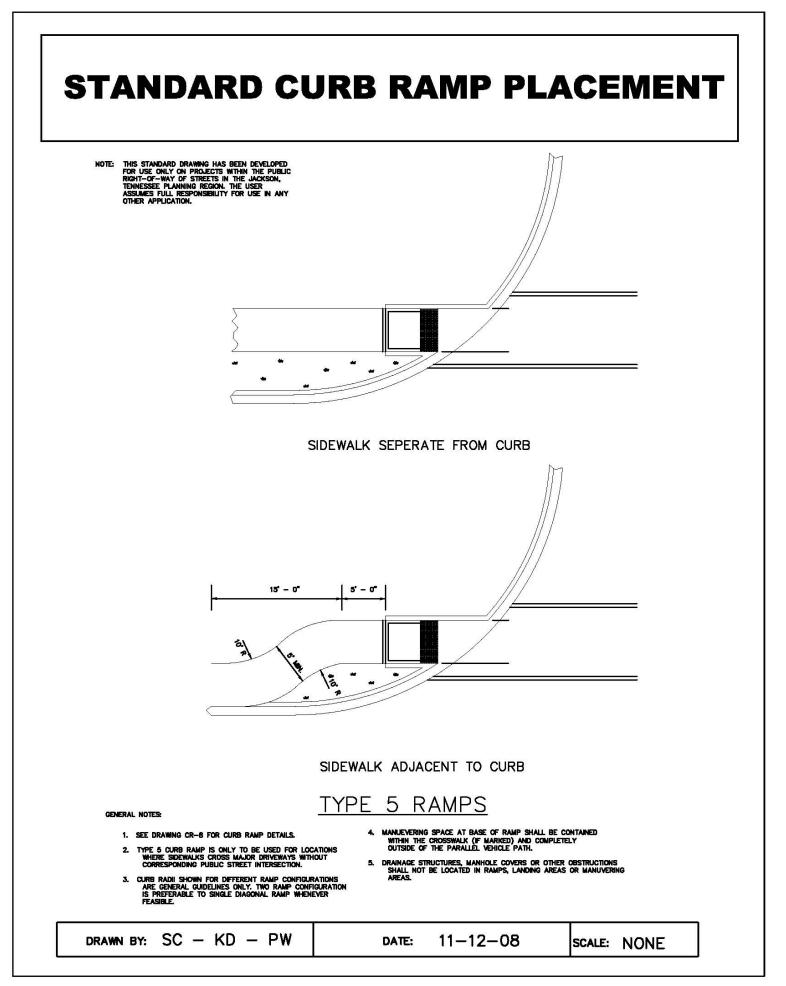






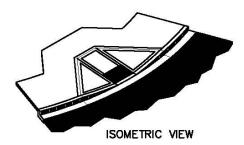






# STANDARD CURB RAMP DETAILS TYPE 1

NOTE: THIS STANDARD DRAWING HAS BEEN DEVELOPED FOR USE ONLY ON PROJECTS WITHIN THE PUBLIC RIGHT-OF-WAY OF STREETS IN THE JACKSON, TENNESSEE PLANNING REGION. THE USER ASSUMES FULL RESPONSIBILITY FOR USE IN ANY OTHER APPLICATION.



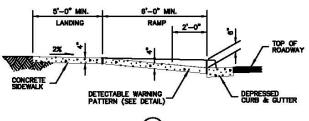
SIDEWALK RAMP TYPE 1 PLAN

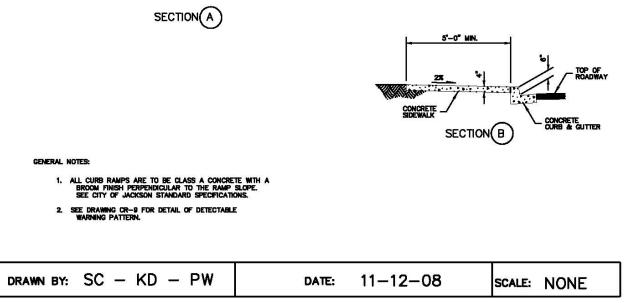
в

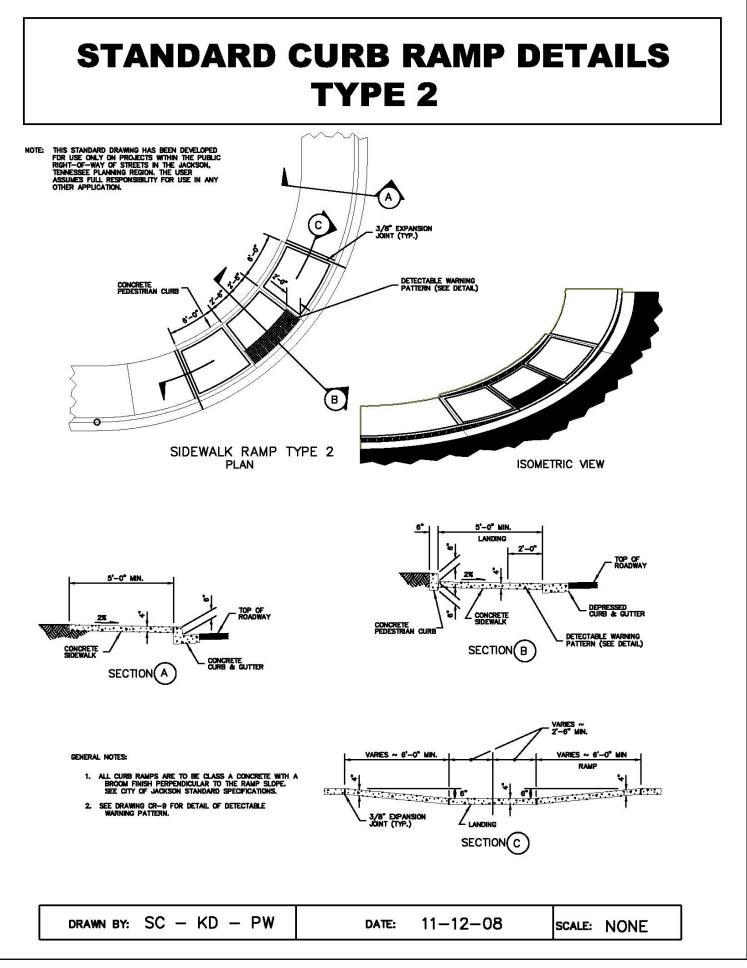
DETECTABLE WARNING PATTERN (SEE DETAIL)

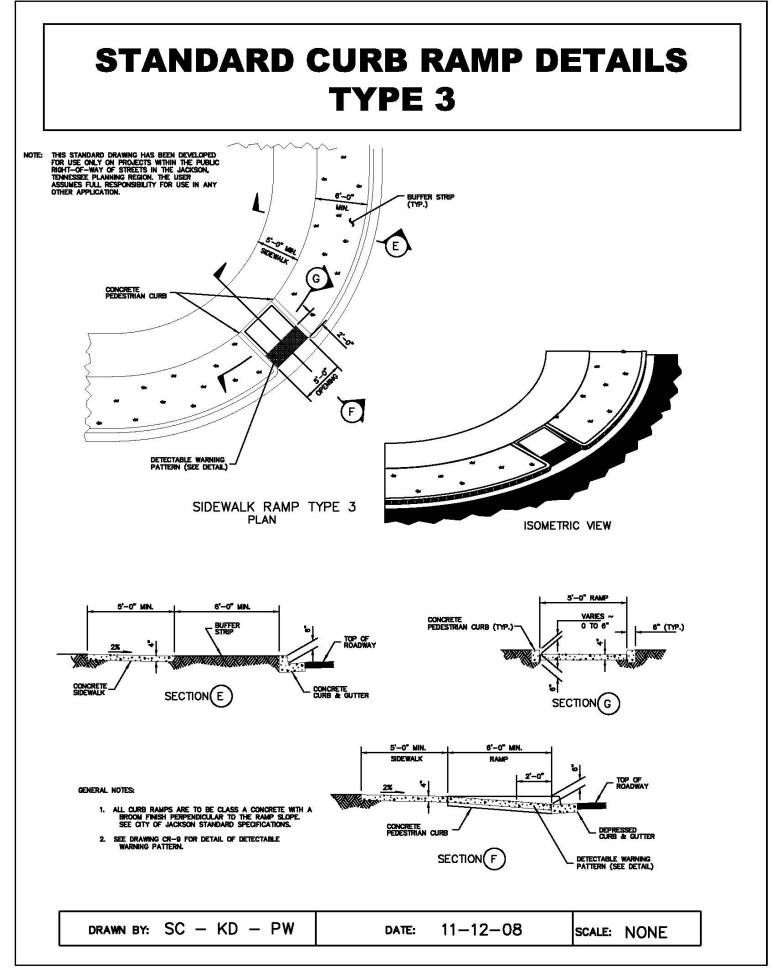
3/8" EXPANSION JOINT (TYP.)

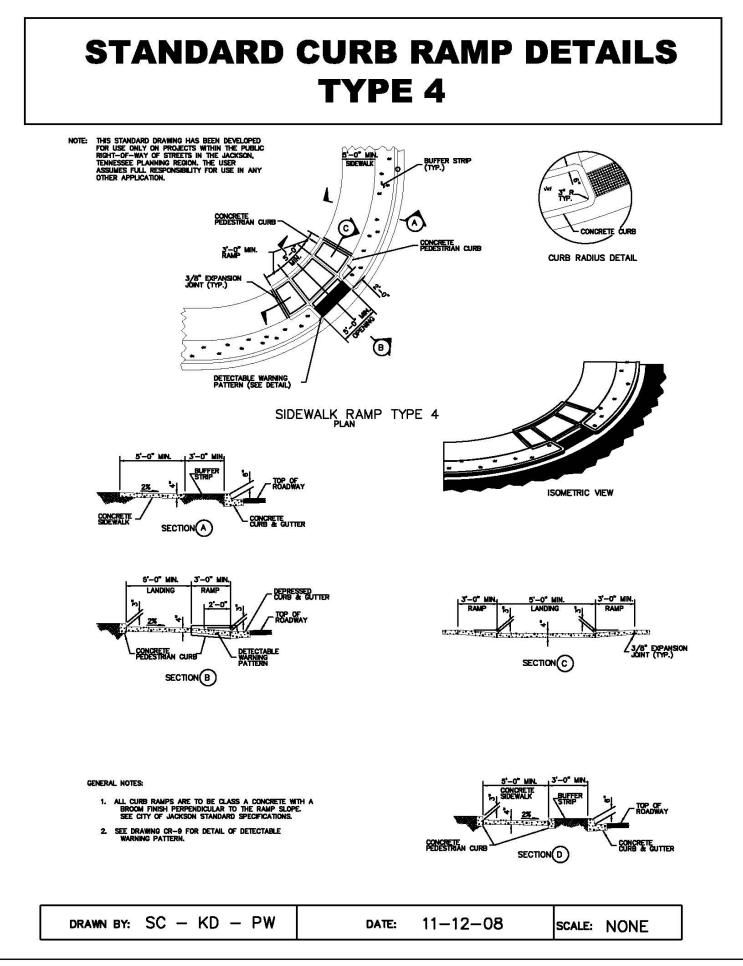
ALTERNATIVE BACK OF SIDEWALK A

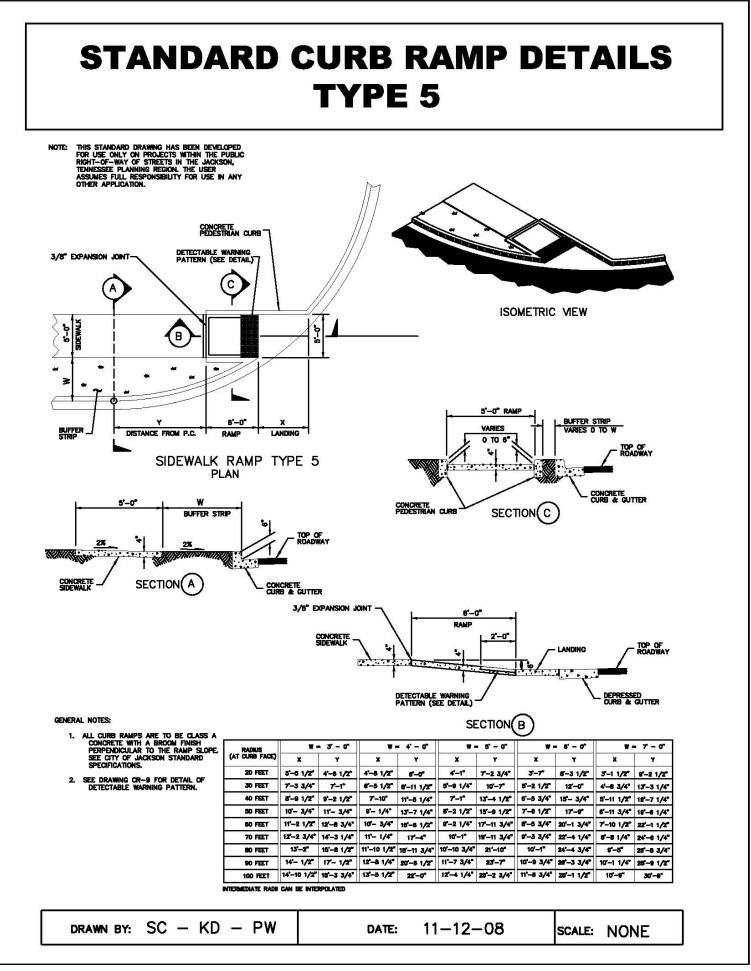


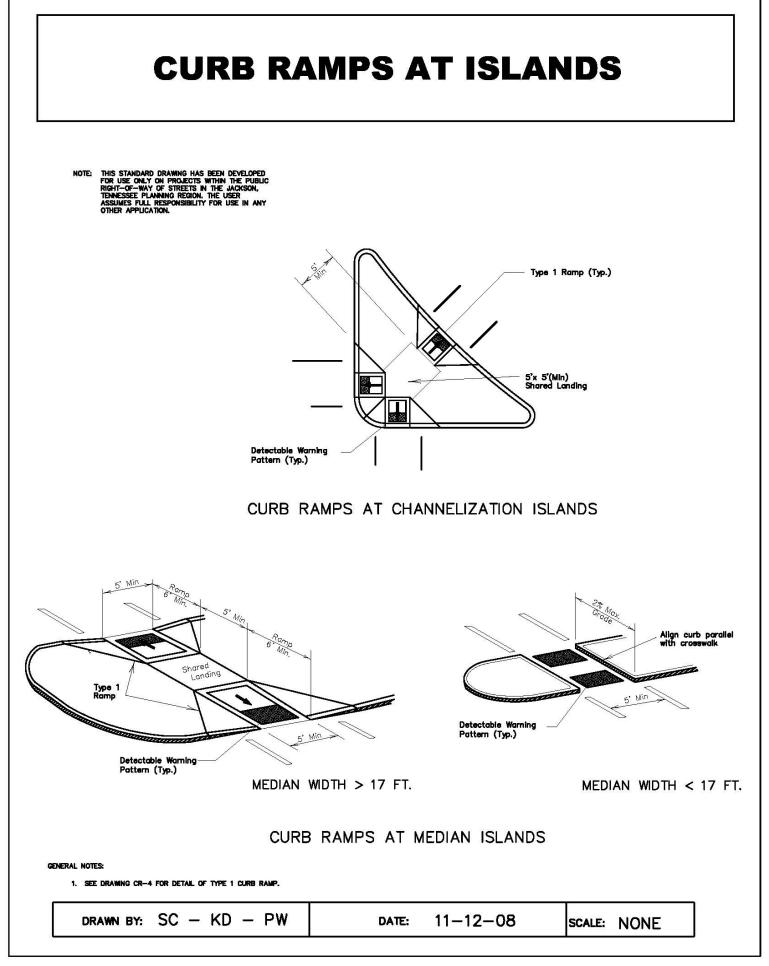






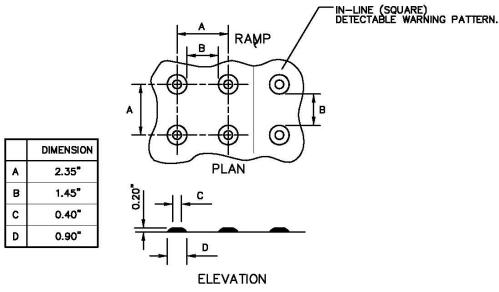






## **DETECTABLE WARNING DETAIL**

NOTE: THIS STANDARD DRAWING HAS BEEN DEVELOPED FOR USE ONLY ON PROJECTS WITHIN THE PUBLIC RIGHT-OF-WAY OF STREETS IN THE JACKSON, TENNESSEE PLANNING REGION. THE USER ASSUMES FULL RESPONSIBILITY FOR USE IN ANY OTHER APPLICATION.





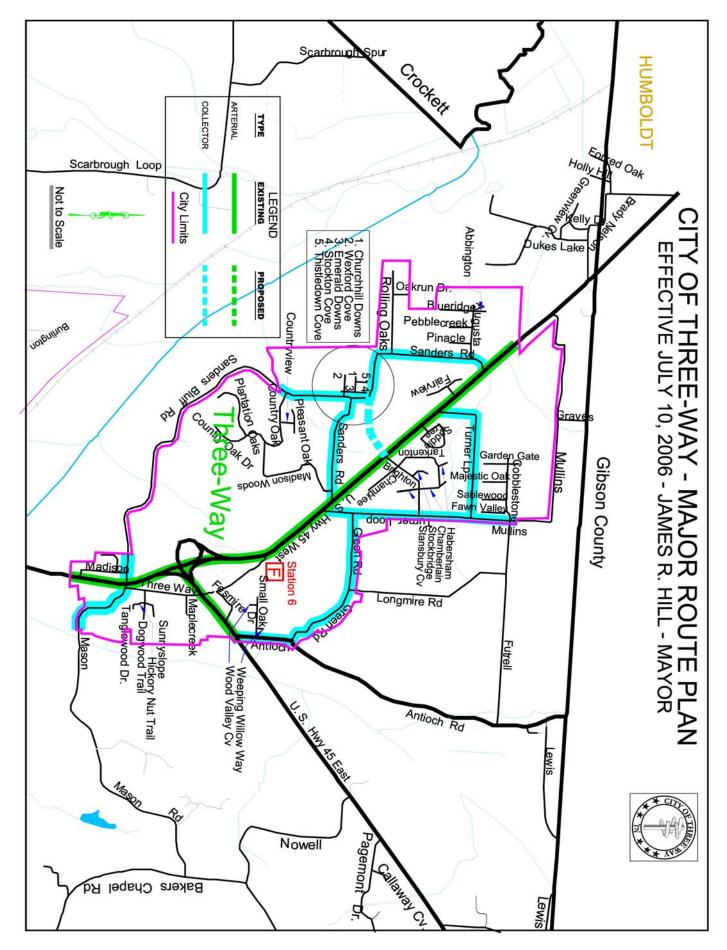
GENERAL NOTES:

- 1. SEE DRAWINGS CR-4 THROUGH CR-8 FOR CURB RAMP DETAILS.
- 2. DETECTABLE WARNING TO BE 24" LONG IN DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE RAMP OR LANDING.
- 3. DECTECTABLE WARNING PATTERN SHALL BE PROVIDED BY POLYMER COMPOSITE PANELS. CAST IN PLACE CONCRETE IS NOT ACCEPTABLE. INSTALLATION IS TO BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- 4. SURFACE IS TO BE SLIP RESISTANT.
- 5. DETECTABLE WARNING UNITS ARE TO COMPLY WITH THE CURRENT EDITION OF AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES.
- 6. DETECTABLE WARNING PATTERN TO BE IN A COLOR THAT CONTRASTS VISUALLY WITH THE ADJOINING SURFACES OR SAFETY YELLOW FOR USE ON DARK COLORED SURFACES ARE PREFERRED. OTHER COLORS MUST BE APPROVED BY THE AUTHORITY HAVING JURISDICTION.

drawn by: SC — KD — PW	date: 11-12-08	SCALE: NONE	
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### **APPENDIX A**

### MAJOR ROAD AND STREET PLAN



## **APPENDIX B**

### CONSTRUCTION DRAWING NOTES

#### Jackson Energy Authority:

- 1. All JEA Water and/or Wastewater Utility construction shall meet the latest edition JEA's Standard Technical Specification. All JEA utility construction will be inspected by JEA.
- 2. The street right-of-way shall be at subgrade prior to the installation of the water main, services and appurtenances. The Engineer shall verify that the roadway is to subgrade and provide a letter to the Jackson Energy Authority Water System Engineer.
- 3. All water services shall be 1" copper services to each lot. The water service shall be located in the center of each lot at the right-of-way.
- 4. Center a full joint of pipe a minimum of 18" below culverts unless otherwise shown. Use ductile iron pipe on water and sewer mains under culverts.
- 5. All PVC to ductile iron transitions shall be made with a ductile iron sleeve with a transition gasket, Fernco couplings will not be allowed.
- 6. If cut and fill operations of the street right-of-way subsequent to the water and sewer lines being installed causes the utilities to have less than 30 inches cover (18 inches for water services), then the utilities shall be adjusted accordingly by the developer's contractor before final approval is granted.
- 7. Sewer services shall be a minimum of 5 feet deep (not to exceed 7 feet unless given authorization from a JEA representative) at the easement line and should be downstream of the water service approximately 12 feet (this requirement can be waived by JEA representative for special conditions). Sewer service shall be 6" SDR 35 PVC to each lot. Sewer services shall not be installed under future driveway connections.
- 8. Contractor shall provide to Jackson Energy Authority as-built measurements of all water and sewer facilities upon completion of the installation and prior to Final Plat signing.
- 9. The water valve at any dead end main shall have a valve box installed on it with a LOCKING RED DEBRIS CAP installed in it to assure that no one operates the valve.
- 10. All water mains shall be ductile iron 12" and above shall be Thickness Class 51 or Pressure Class 350. Below 12" shall be Thickness Class 50 or Pressure Class 350.
- 11. All sewer mains shall be SDR 35 PVC unless otherwise noted.
- 12. All water line fittings shall be restrained by megalug retainers or concrete thrust blocking.
- 13. Contractor shall initiate pre-construction conference with JEA prior to beginning any water or sewer work.

#### City of Three Way Engineering Staff:

#### **General Construction Notes:**

- 1. The Contractor shall notify the Engineering Staff before commencing construction.
- 2. The Contractor shall be responsible for notifying any utility company, which maintains a utility line within the boundaries of the project before the initiation of any construction on the project or in the streets bordering the project.
- 3. All construction shall meet the City of Three Way Standard Specifications contained within the Subdivision and Land Development Regulations.
- 4. The Contractor must have written approval from the City of Three Way Engineering Staff and the Project Engineer before any change in design is made.
- 5. All construction shall be tested by a licensed independent material testing company to ensure compliance with compaction requirements and to ensure the minimum thickness of base and pavement. A copy of the test results shall be forwarded to the City of Three Way Engineering Staff and labeled as Test Reports, "Subdivision name", Three Way, Tennessee.
- 6. All soil fill areas in the street shall be compacted to 95% of Standard Proctor Density, tested per ASTM D-698. The top six inches of all fills and cut areas in the street shall be compacted to 100% of Standard Proctor Density per ASTM D-698.
- 7. Fills shall be constructed in lifts with a maximum loose lift thickness of eight (8) inches.
- 8. Subgrade compaction testing must be completed after installation of all utilities in the street and immediately preceding base material application. The subgrade compaction test results must be submitted to and approved by the Engineering Staff prior to the application of the base material. Base material compaction testing must be completed immediately preceding the application of the binder coat. The base material test results must be submitted to and approved by the Engineering Staff prior to the application of the binder coat. The base material test results must be submitted to and approved by the Engineering Staff prior to the application of the binder coat. The binder coat. The binder coat compaction and thickness test results must be submitted to and approved by the Engineering Staff prior to the approval of the final plat. All storm drain and other utilities located under the streets shall have trenches compacted at 95% Standard Proctor Density per ASTM D-698.
- 9. The minimum frequency of soil tests shall be one test per 300 feet of street length with a minimum of three (3) tests per project phase. Testing shall be performed at the above frequency on each ten (10) inch lift of fills and on the final subgrade whether in cut or fill.
- 10. Prior to placing granular base on the street the subgrade shall be proof rolled with a loaded dump truck with a gross weight of approximately 30 tons in the presence of the Engineering Staff or his designee. Notify the Engineering Staff a minimum of two working days in advance for scheduling.

- 11. Roadway base shall be compacted to a minimum density of 95% Standard Proctor Density (ASTM D-698).
- 12. The granular base shall be tested for density and thickness every 300 feet of street length with a minimum of three (3) tests per project phase.
- 13. Prior to placing asphalt on the street the granular base shall be proof rolled with a loaded dump truck with a gross weight of approximately 30 tons in the presence of the Engineering Staff or his designee. Notify the Engineering Staff a minimum of two working days in advance for scheduling.
- 14. All asphaltic courses shall be compacted to a minimum of 92% of Maximum Theoretical Density.
- 15. Asphalt shall be randomly tested for density and thickness every 300 feet of street length with a minimum of three (3) tests per project phase.
- 16. Concrete for curb and gutter and sidewalk shall be a minimum 3000 psi at 28 days and shall be tested for consistency and strength in accordance with AASHTO test methods T 119, T 22 and T 23. The tests shall be performed every 800 feet of street length with a minimum of one (1) test per day.
- 17. Type, use and location or ornamental street signs and signposts must be approved by the Engineering Staff prior to submission of the Final Plat.
- 18. Adjust manhole lids to match grade of cross-slope if offset from centerline. All manhole lids to be flush with base layer of pavement then adjusted as required by contractor with final pavement layer installation.
- 19. All streets adjacent to the site shall be kept clean during construction.
- 20. Traffic control shall be provided as appropriate and shall be in accordance with the current edition of the Manual on Uniform Traffic Control Devices.

#### **Erosion Control Notes:**

- 1. The Contractor shall provide and maintain erosion control during construction as required by the latest edition of the Tennessee Erosion and Sediment Control Handbook to prevent situation downstream in any ditches, pipes, drainage structures, streets, or adjacent properties.
- Additional erosion control measures may be necessary as work progresses. The contractor shall be responsible for maintaining and adjusting the erosion control measures as necessary throughout the life of construction and until full stabilization of the area is achieved.

- 3. All temporary erosion control measures must be in place before beginning earth-moving operations. Areas of exposed earth shall be kept to a minimum. Embankments and excavated areas shall be promptly stabilized to minimize erosion.
- 4. The contractor or owner shall file all documents necessary for receiving a NPDES Permit when required for stormwater discharge (filing the N.O.I., including payment of permit fees) implement an effective erosion plan, document the effectiveness of the plan and adjust the plan as necessary to comply with the conditions of the permit. This plan shall be revised as necessary and shall be made a part of the Stormwater Pollution Prevention Plan. All proposed revisions shall be in consultation with the design engineer.
- 5. All excavation and fill activities must be conducted in the dry.
- 6. Check dams shall be installed in the toe of all fill slopes, in ditches, and other areas as necessary to prevent silts from entering adjacent properties. All baled straw shall be replaced at 60-day minimum intervals, until full stabilization is achieved.
- 7. Any stockpiled soils for fill material, shall be located and treated in a manner to prevent silt from leaving the property either through storm drains or over land.
- 8. Contractor shall maintain a rain gage on site at all times and record rainfall daily. Contractor must inspect erosion control twice per calendar week. Inspections must take place at least 72 hours apart.
- 9. All areas shall be seeded and mulched at minimum. Stabilizing materials shall be applied as soon as possible upon completion of final grading and in no case greater than 15 days.
- 10. After full stabilization of all disturbed areas the contractor shall remove all temporary erosion control items. After full stabilization the contractor shall file a "Notice of Termination" with the State of Tennessee.
- 11. Where earth-disturbing activity has been temporarily ceased, temporary stabilization will be applied within (7) seven days if the activity will not resume within (15) fifteen days.
- 12. The developer or any designee performing construction activities on his behalf is responsible for complying with applicable state and federal regulations with regard to sediment/erosion control.

## **APPENDIX C**

### DIGITAL FILE DRAWING LAYERS

### DIGITAL REQUIREMENTS FOR SUBDIVISION PLAT SUBMITTALS IN THREE WAY

The following is a list of the layers and layer names for final plat digital subdivision plat submittals in Three Way. The preliminary plat and construction drawings must be submitted in the required digital format, but no specific layers or layer names are specified for digital plat submission. The digital file should be submitted in AutoCAD \*.dwg, \*.zip, or a self-extracting \*.zip format with drawing coordinates and orientation on the Tennessee State Plane Coordinate System NAD 83. The digital file may also be submitted in a \*.dxf format if necessary. The files may be submitted on a CD or e-mailed to <u>plats@jaxenergy.com</u> and <u>kdonaldson@cityofjackson.net</u>. The drawing shall contain at least two (2) TN state plane coordinates that will identify the location of the subdivision. Any utilities located within the street right-of-way must be identified on the appropriate separate layer(s).

### FINAL PLAT DIGITAL DRAWING FILE LAYERS AND LAYER NAMES

Plat Entity	.dwg layer
Lot Line	PL_LOT
Lot Text	PT_DIM
State Plane Coordinate	LL_CNTRL
State Plane Coordinate Text	LT_CNTRL
Street Centerline	CL_STREET
Street Centerline Text	CT_STREET
Street Right-of-Way	RL_STREET
Street Right-of-Way Text	RT_STREET
JEA Easements	EL_UTIL_JEA
JEA Easements Text	ET_UTIL_JEA
JEA Gas Utility Line	UL_JEA_GAS
JEA Gas Utility Line Text	UT_JEA_GAS
Wastewater Easements	EL_UTIL_WWTR
Wastewater Easements Text	ET_UTIL_WWTR
JEA Wastewater Line	UL_JEA_WWTR
JEA Wastewater Line Text	UT_JEA_WWTR
Water Easements	EL_UTIL_WTR
Water Easements Text	ET_UTIL_WTR
JEA Water Line	UL_JEA_WTR
JEA Water Line Text	UT_JEA_WTR