SUBDIVISION REGULATIONS

FOR

THE CITY OF FRANKLIN, KENTUCKY

PREPARED FOR THE CITY OF FRANKLIN &
SIMPSON COUNTY PLANNING COMMISSION

Larry Dixon, Mayor
Commissioners
Jamie Powell
Wendell Stewart
Brownie Bennett
Herbert Williams

PREPARED BY:
City of Franklin
Public Works Department
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ARTICLE I GENERAL PROVISIONS

A. Title

These regulations shall be known and cited as the "Subdivision Regulations for the City of Franklin, Kentucky". A certified copy of these regulations will remain on file with the City Court Clerk of Simpson City and in the administrative office of the Planning and Zoning Commission.

B. Purpose

Land Subdivision is the first step in the process of Community Development. Once land has been divided up into streets, lots, and blocks and is publicly recorded, the correction of defects is costly and difficult. Subdivision of land sooner or later becomes a public concern, in that public infrastructure must be maintained and various public services customary to urban and rural areas must be provided. The welfare of the community is thereby affected in many important respects. It is therefore in the interest of the public, the developer, and future owners that subdivisions be conceived, designed, and developed in accordance with sound rules and proper minimum standards. In accordance with State statute, these regulations are intended to provide:

1) For the harmonious development of the region and its environs;
2) For the coordination of roads within the subdivided land with other existing or planned roads or with the state or regional plan or with the plans of municipalities in or near the region;
3) For adequate open spaces for traffic, light, air, and recreation;
4) For the conservation of or production of adequate transportation, water, drainage and sanitary facilities, and to reduce flood damage potentials to the greatest extent possible;
5) For the avoidance of population congestion; and
6) For the avoidance of such scattered or premature subdivision of land as would involve danger or injury to health, safety or prosperity.

The regulations herein shall supplement and facilitate the enforcement of the provisions and standards contained in the Zoning Regulations of the City of Franklin and Simpson County, Kentucky (hereinafter referred to as the Zoning Regulations) and shall likewise supplement and facilitate the enforcement of the provisions and standards contained in the City Stormwater Management Ordinance.

C. Authority

These regulations were prepared by the City of Franklin, Ky. Public Works Department and adopted by the Commissioners of the City of Franklin, Kentucky under authority granted by the *Kentucky Revised Statutes*.

D. Jurisdiction

The provisions of these regulations shall apply to all lands within the City of Franklin, Kentucky. These regulations shall govern all subdivision of land within the City Planning Region. For these regulations the term "subdivision" means "the division of a tract or parcel of land into two (2) or more lots, sites, or other divisions requiring new street or utility construction or any divisionof less than five (5) acres for the purpose, whether immediate or future, of sale or building development, and includes re-subdivision and, when appropriate to the context, relates to the processof re-subdividing or to the land or area subdivided." "Utility construction" does not include the mere extension of individual service pipes or lines for the purpose of directly connecting a singlelot, site or other division to existing utility mains.

Any owner of land within this area wishing to subdivide said land shall submit to the Planning Commission prescribed documents and plans according to the procedures outlined herein, conforming to the minimum requirements set forth herein, and any improvements shall be installed as required by these regulations.

No land shall be subdivided within the jurisdiction until the applicant submits the document(s) required by these regulations, obtains Planning Commission approval of the final plat, and files the approved plat with the Simpson County Clerk.

E. Interpretation

In their interpretation and application, the provisions of these regulations shall be held to minimum requirements, adopted for the promotion of the public health, safety, and general welfare. Whenever the provisions of these regulations are at variance with the requirements of any other lawfully adopted rules, regulations, ordinances, deed restrictions, or covenants, that provision which is more restrictive or imposes higher standards of requirements shall govern.

F. Severability

If any section, clause, paragraph, provision, or a portion of these subdivision regulations shall be found invalid or unconstitutional by any court of competent jurisdiction, such holding shall not affect any other section, clause, paragraph, provision, or portion of these regulations and their application and validity to other sections. The City Commission authorizes the Planning Commission to hereby declare that it would have enacted the remainder of these regulations even without any such part, provision, or application.

G. Amendments

1. Enactment
   Before the addition of any amendment to these regulations, a public hearing shall be held by the Franklin-Simpson Planning and Zoning Commission and amendments approved by the City Commissioners. Notice of the time and place of the public hearing shall be given by publication in a newspaper of general circulation in the jurisdiction in accordance with relevant state statute.

2. Codifications and Distribution
   Subsequent to the adoption of any amendment to these regulations, such amendment shall be incorporated with placement pages incorporating the new or changed language. Each new or replacement page shall have an amendment number and shall be dated so as to indicate the date of the last revision of the page. Any necessary corrections to the Table of Contents,

cross references, or numbering of sections of these regulations, but not specifically called out at the time of adoption, shall not require formal action by the City Commissioners.

H. Waivers

1. Findings
   If the Planning Commission finds that compliance with certain subdivision regulations will increase the difficulty of development of a particular property without significant benefit (result in practical difficulties), a waiver of these regulations may be granted provided that such waiver shall not have the effect of nullifying the intent and purpose of these regulations and only with the written consent of the City Engineer. The Planning Commission shall make written findings based on the evidence presented to it in each specific case that:

   a. The granting of a waiver shall not be detrimental to the public health, safety, welfare, or injurious to other property or improvements where the property is located.
   b. The waiver must, in the judgment of the Planning Commission, be harmonious and consistent with the general purpose of these subdivision regulations notwithstanding the fact that certain aspects of these regulations may be waived as applied to the particular property and are not applicable generally to other property.
   c. Because the particular physical surroundings, shape, or topographic conditions of the specific property involved, a particular hardship to the owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulations is carried out.
   d. The waiver shall be consistent with any provisions of the adopted Comprehensive Plan and the Zoning Regulations.
   e. An alternative providing equal or greater compliance is not available.

2. Procedures
   A petition for a waiver shall be submitted in writing by the applicant to the Planning Department and shall accompany either the concept plan or preliminary plat as appropriate for presentation to the Planning Commission. The petition shall state fully the grounds for the application and all the facts upon which the petitioner is relying.

3. Conditions
   In approving waivers, the Planning Commission may impose such conditions as in its judgment shall secure substantially the objectives, standards, and requirements of these regulations.

4. Record
   Any waiver shall be stated in writing and stated in the minutes of the meeting the Franklin-Simpson Planning and Zoning Commission with the reason on which it is based.

ARTICLE II PROCEDURE FOR SUBDIVISION PLAT APPROVAL

A. General

Before any land is subdivided or any contract is executed for the sale of any parcel of land that is proposed to be subdivided and before any permit for the erection of any structure in a proposed subdivision is granted, the owner of the property or a designated attorney-in-fact (hereinafter "applicant"), shall, upon payment of applicable fees, apply for and secure approval of proposed subdivision in accordance with the standards as set forth in these Regulations. If an applicant is a corporation, LLC, or other similar organization, a contact person shall be identified on the application materials.

B. Classification of Subdivisions

Using the following definitions, the Planning Administrator shall determine whether the application is a Major or Minor Subdivision.

1. Major Subdivision
   A division of land into more than two (2) lots, or any subdivision that includes any of the following conditions for major subdivision review:

   a. A new or extended public street or street right-of-way, but not including future street alignments illustrated in a plan of re-subdivision.
   b. Improvement(s) within an existing street right-of-way; other than:
      (i) a repair or construction of sidewalk(s) or other pedestrian connections required by these regulations,
      (ii) fire hydrants or other types of minor improvements necessary to serve the lots being created.
   c. The dedication of a right-of-way or easement for construction of any public utility, excluding private service lines and public utility drainage easements across lot frontage.
   d. Dedications, reservations, improvements, or any other factors that, in the opinion of the City, with advice from reviewing agencies, require construction documents to be reviewed prior to final plat approval to ensure the public health, safety and welfare.
   e. Drainage improvements common to one or more lots proposed that are either new or altered.
   f. Any subdivision which seeks to gain approval for any waiver or exception to any provision contained in this document or within the Zoning Regulations, Major Thoroughfare Plan or Stormwater Management Ordinance.

2. Minor Subdivision
   A subdivision of land in which less than three buildable lots are being subdivided with a possible remaining parent land tract and with no new streets, extension of any streets and no public utility improvements, and in which the conditions for major subdivision review, as set forth above are not present.

C. Review Procedures

All applications for subdivisions shall follow the procedures described below:

1. Major Subdivision
   a. Pre-application advisory meeting with Planning staff including a Concept Plan;
   b. Submittal of a Preliminary Plat, in accordance with requirements herein, for

Planning Commission approval: At staff's discretion, the Concept Plan requirement may be waived for subdivisions containing five (5) lot or less and no public improvements.

c. Submittal of Preliminary Plat and Construction Documents as required herein for Planning Commission approval;
d. Submittal of Final Plat, along with required surety and performance documents guaranteeing infrastructure improvements, for Planning Commission approval.

2. Minor Subdivision
   a. Pre-application conference as deemed necessary by Planning staff;
   b. Submittal of Final Plat for Planning Commission approval.

D. Submittal Date

For the purpose of these regulations for major subdivisions, the date of the regular meeting of the Planning Commission at which the public hearing on the completed preliminary subdivision plat application is closed shall constitute the official submittal date of the plat at which the statutory period required for formal approval or disapproval of the plat shall commence. When a plat has been filed with appropriate officials, the plat shall be placed on the agenda of the Planning Commission within thirty (30) days of the filing or the next regularly scheduled Planning Commission meeting after the thirty (30) day period. The applicant may waive the time frame requirement for the appearance of the plat on the agenda, and the Planning Administrator shall document such actions in writing. Planning Commission meeting schedules and submittal/resubmittal dates will be prepared in December of each year for the following year by the Planning Administrator.

E. Planning Commission Action

Within sixty (60) days after initial consideration of a completed Preliminary Plat application, the Planning Commission will indicate approval, disapproval or approval subject to conditions; otherwise, the Preliminary Plat shall be deemed approved and a certificate to that effect shall be issued by the Planning Commission on demand. If a plat is disapproved, reasons for such disapproval shall be stated in writing upon the minutes of the Planning Commission. A Preliminary Plat application shall be considered "completed" if it is accompanied by all required documents and information outlined in these regulations. A Preliminary Plat approval checklist shall be promulgated by the Planning Administrator and shall be distributed to applicants upon the payment of fees associated with thePreliminary Plat application. Applications deemed "incomplete" by the Planning Commission shall not initiate the statutory period required for formal approval or disapproval of the plat.

The applicant for Preliminary Plat approval may, in writing or at a public meeting of the Planning Commission, waive the time requirement set in this section and consent to an extension or extensions of the applicable time period. Furthermore, the time requirement set in this section may be adjusted for holidays, or unexpected interceding events that close City offices. Any plat submitted to the Commission shall contain the name and address of a person to whom notice of hearing may be sent; and no plat shall be acted upon by the Commission without affording a hearing thereon, notice of the time and place of which shall be sent by mail to the address not less than five (5) days before the date fixed for such hearing.

1. Sixty Days to Submit Revised Plans
   Any application that receives conditional approval from the Planning Commission shall be followed, within sixty (60) days, by submission of revised plans, or the Commission's approval shall expire.

2. Effective Period of Preliminary Plat and Construction Drawings Approval

   a. Preliminary Plats shall expire after three (3) years from the date of Planning Commission approval unless an extension is granted consistent with "b" below or one of the following occurs:
      (i) A notice to proceed has been issued by the Public Works Director and construction activity consistent with the approved Construction Drawings has occurred; or
      (ii) A Final Plat based on the approved Preliminary Plan is approved and recorded.

   b. A one-time extension for one (1) additional year may be requested to the Planning Commission if submitted no less than sixty (60) days prior to the expiration of the original approval. The Planning Commission may grant such extension if deemed appropriate based upon progress made in developing the subdivision. If an extension is granted, expiration will be determined based on this section.

   c. On all expired Preliminary Plats, any Construction Drawings or unrecorded Final Plats based upon such plan, will also be considered to be expired.

3. Revisions to Approved Preliminary Plats

   Minor revisions shall be approved by the Planning Administrator if revisions are deemed not to besignificant. For all revisions determined by the Planning Director to be major, Planning Commission approval will be required. Procedures for considering a major revision to a Preliminary Plat shall be the same as required for an initial application for Preliminary Plat approval. Major revisions include, but are not limited to:

   a. Change in location and number of access points
   b. Increase in total number of lots
   c. Reduction in size of lots
   d. Change in size and/or use of open space
   e. Significant changes to lot configuration or road locations/alignments
   f. Environmental or other natural features' buffers

   Where applicable, the threshold of a five (5) percent change or greater will be used to distinguish between minor and major revisions.

4. Expiration of Final Subdivision Plat

   An approved final subdivision plat shall expire if it is not recorded with the Office of the Simpson County Clerk within one hundred and eighty (180) days after the date of approval. Minor Plats, as defined herein shall expire 180 days following the submittal of staff comments to the surveyor of record.

F. Pre-Application Conference

1. Pre-Application Advisory Meeting Required

   Prior to submitting plans for subdivision of property in the City, a developer shall request a pre-application advisory meeting with the Planning Administrator to review the location, scope,and nature of the proposed development; to clarify development issues; and to discuss other matters as may be relevant to the development review and approval process. This pre-application advisory meeting shall be attended by City staff as needed and the developer(s) or their representative. A pre-application advisory meeting shall not be required where staff determines that no purpose will be served by having such conference.

2. Pre-Application Advisory Meeting Purpose

The purpose of the pre-application advisory meeting is to provide an opportunity for an informal exchange of information and ideas between the developer's team and City staff and to identify parties responsible for various tasks involving the development design. The conference is intended to introduce the developer and the team to the City's development process, to identify timeframes for submittal and review, and, if applicable, zoning changes or waivers from these regulations. It is expected that during the pre-application conference topics including, but not limited to, the following may be discussed:

- The possible need for traffic studies, as set forth in these regulations, the Zoning Regulations, or as determined by the Planning Department and/or the City Engineer.
- The flood insurance program.
- Utility availability and capacity (particularly the availability and capacity of potable water; and sanitary sewer).
- Policies and expectations for street improvements and traffic improvements.
- Items as required by the Stormwater Management Ordinance.

G. Concept Plan

1. Concept Plan Requirements

For Major Subdivisions not part of a Planned Unit Development, the Applicant shall submit a Concept Plan to the Planning Department for their review, feedback and approval. At staff's discretion, the Concept Plan requirement may be waived for subdivisions containing five (5) lots or less and no public improvements The Concept Plan is a plan for design purposes and should be used to discover factors which may have an impact on the proposed development and advise the subdivider of various possibilities before substantial amounts of time have been invested in a very detailed proposal which may contain elements contrary to these regulations. The Concept Plan shall include all phases of the entire development under consideration.

2. Conditional Approvals

Although the informal approval of a Concept Plan shall convey no vested development rights and does not constitute a "Development Plan" as defined in State Statute, the Planning Department may conditionally approve a Concept Plan subject to the developer providing additional information anddetail related to roads, drainage and other key infrastructure requirements for the entire development under consideration. Such information for the entire development under consideration shall be submitted with the first Preliminary Plat application for the development.

3. Required Information for Concept Plans

At minimum, Concept Plans shall contain the following:

a. A scale drawing of the property and the names of the owners of adjoining property;
b. Size of the original tract(s) being subdivided;
c. Notation of any existing legal rights-of-way or easements or other encumbrances affecting the property;
d. Approximate topography of the site extended into adjacent properties;
e. Any areas which may be affected by flooding;
f. General road and lot pattern;
g. Proposed phasing, if any;
h. Location map of the property;
i. Additional detail the applicant believes will assist the Planning Department in understanding the proposed development.

H. Preliminary Plat

The Preliminary Plat is a detailed planning and engineering document developed by appropriately licensed professionals. Such plat will reflect results of design decisions that have been made in the process of adapting the general concepts contained within the Concept Plan to the engineering of the site.

1. Limitations on Grading Activities
   Prior to Planning Commission approval of a Preliminary Plat and Construction Drawings approval, no grading or clearing of trees (with the exception of those required to facilitate surveying activities)in any form shall be undertaken.

2. Submission Requirements
   The applicant shall submit to the Planning Department, in accordance with the time schedule established by the department, three (3) paper copies and one (1) electronic copy, in a PDF format, of a Preliminary Plat of the proposed subdivision, drawn to a scale of not less than one (1)inch equals one hundred (100) feet, and any other plans or supporting documents/reports/ studiesthat may be required by the Planning Commission, along with the payment of all required fees. Atleast five (5) business days prior to the Planning Commission meeting, the applicant shall submit two (2) copies of the revised plat as required by the Planning Department for inclusion in the Planning Commission meeting packet.

3. Multiphase Development Requirements
   a. To gain an understanding of drainage and infrastructure needs, the Planning Commission may, in approving a Preliminary Plat, require that the first Preliminary Plat submitted for a multiphase development contains required information and detail related to roads, drainage, and other key infrastructure requirements for the entire development under consideration.
   b. In approving a major or minor plat in which the remaining acreage of the parent tract is more than twice the amount of the average lot size being created, the Planning Commission may require, as a condition of approval, the submittal of a Concept Plan for the remainder property prior to the approval of any future plats for the parent tract.

4. Required Preliminary Plat Information
   The Preliminary Plat shall provide the following information:

   a. *Baseline Information:*
      i. Proposed subdivision name;
      ii. Location, name and address(es) of the owner(s), name and address of the designer of the plan, along with professional registration and contact information;
      iii. Date, approximate north point, graphic scale, and location map;
      iv. Location of existing property lines, building envelopes, streets, buildings, water courses and stormwater conveyances, railroads, sewers, bridges, culverts, streams, and any public utility easements or lines;
      v. Names of adjoining property owners, subdivisions and streets with corresponding property map and parcel number(s), deed book and page references for all existing easements and property zoning;
      vi. Current zoning;
      vii. Plans for proposed public utility layouts (sewers, water) showing feasible connections to the existing utility systems;
      viii. Proposed property lines, locations, widths and names of proposed streets, alleys, drainage easements, utility easements, parks and other open spaces, reservations, water quality buffers, outlines and other building setback lines;
      ix. Lots labeled in numerical sequence. Lot 1 shall be located in the first section/phase of

the proposed development;

x. Contours of vertical intervals not more than two (2) feet, except this requirement may be waived if requested in writing by the applicant to the Planning Department;

xi. Acreage of land to be subdivided and bearings and dimensions of overall property boundary;

xii. FEMA panel number showing the one hundred (100) year flood limit, including floodway, with that portion of the property lying below the one hundred (100) year flood elevation being shown shaded or hatched;

xiii. Limitations for development such as sinkholes, rock outcrops, wetlands, topographic depressions, excessive slopes (20% or greater), jurisdictional waters of the state, etc.;

xiv. Name and location of any cemetery on the property and/or access easements to any off-site cemetery through the property;

xv. Proposed phasing;

xvi. A form for endorsement of Planning Commission approval of the Preliminary Plat which shall read as follows: Approved by the Simpson County Planning Commission, with exceptions or conditions as are indicated in the Minutes of the Planning Commission (date). Preliminary approval shall not constitute final approval of the Subdivision Plat.

b. *Other Supporting Documentation* to be included with all Preliminary Plat submittals:

i. Construction plans as required by these regulations and the city of Franklin Stormwater Management Ordinance;

ii. If on-site sanitary methods are proposed (i.e., septic tanks, alternate systems): one hundred (100) foot Water Pollution Control map, as defined by the Kentucky Division of Water, for proposed areas;

iii. Street name determinations from Emergency Communications E911 showing approved street names;

iv. Applicable deed of ownership for the property under consideration;

v. Location map showing relationship of subdivision site to the area;

vi. Letter of water services availability providing domestic and fire demands for proposed subdivision;

vii. Supporting information as identified in pre-application conference, including, but not limited to, traffic studies;

viii. All lots that have some geographic feature (i.e., sinkhole, floodplain, steep slopes, or drainage easements) that would affect the location and construction of a structure/building, parking, accessory structures, or utilities (i.e., water, sewer, septic tank, well, electricity, phone) shall have a specific notation placed on the affected lot or in an appropriate location on the plat by the applicant's engineer or surveyor that is readily visible;

ix. A draft of proposed restrictive covenants, if any, to be imposed and designation of areas subject to special restrictions.

5. Preliminary Approval

After the Planning Commission has reviewed the Preliminary Plat, construction plans, exhibits, and the results of administrative reviews, and has held a public hearing in accordance with the procedures outlined in state law and within these regulations, the applicant shall be advised of any required changes or additions.

a. After the Planning Commission approves, conditionally approves, or disapproves the Preliminary Plat, one (1) copy of the proposed Preliminary Plat shall be returned to the applicant with the date of approval, conditional approval, or disapproval and the reasons therefore accompanying the plat.

b. If a Preliminary Plat is disapproved, the Planning Commission shall state specific reasons for disapproval which shall be entered into the minutes of the meeting. Such reasons for disapproval should be stated upon the record by each Commissioner when voting.
c. Before the Planning Commission approves a Preliminary Plat showing park reservation or land for other public use proposed to be dedicated to the City the Planning Commissionshall obtain approval of the park or land reservation from the appropriate governmental agency.

6. Public Improvements
The Planning Commission may require that all public improvements be installed and dedicated prior to approval of the Final Subdivision plat by the Planning Commission. If the Planning Commission does not require that all public improvements be installed and dedicated prior to final approval of the Final Subdivision Plat by the Planning Commission, adequate performance surety bonds must be approved in accordance with these regulations.

I. Construction Plans

Construction plans are to be submitted for all major subdivisions. Construction plans shall be submitted concurrently with or following the Preliminary Plat and shall be revised to conform to the Preliminary Plat as approved by the Planning Commission. Construction plans shall be designed in accordance with requirements and specifications outlined in these regulations and per the City of Franklin Stormwater Management Ordinance. The complexity of plans submitted shall becommensurate with the complexity and nature of the development proposed.

All construction plans and supporting documents shall be stamped by a professional engineer registered in the State of Kentucky. The Planning Commission will consider no Final Plats for approval, and no land disturbance permits shall be issued, until the City Engineer has approved a set of Construction Plans. Following required revisions and final City approval of the Construction Plans, a Pre-Construction Conference shall be held between the Applicant and City Staff. All Construction Plans shall, at a minimum, contain the following. Additional requirements are located in the Roadway and Drainage Technical Standards Appendix to these Regulations:

1. Title and Cover Sheet
   a. Name of Development;
   b. Name and Address of Developer(s);
   c. Name and Address of Engineer and/or Surveyor;
   d. Professional Engineer's and Surveyor's Stamp and/or Signature;
   e. Location Map;

2. Details Sheets
   a. Headwalls;
   b. Typical Road Sections;
   c. Typical Ditch Sections;
   d. Cross Drain Details;
   e. Erosion Control Structures;
   f. Any other structures or construction requirements of special details at the discretion of the City Engineer;

3. Street Plan and Profile Sheet
   a. Detail plans plotted on plan and profile sheets to a minimum scale of 1" (one inch) = 50' (fifty feet) horizontal, and 1" (one inch) = 5' (five feet) vertical;
   b. Plan section including the street and right-of-way plotted to the proper scale with stationing shown, and matching that of the profile section as nearly as possible;
   c. Typical roadway sections, as appropriate;
   d. Where conventional roadway sections are used, the stabilization required for the roadside ditches, including the linear extent and type of stabilization required;
   e. Profile section plotted to the same scale as identified above and including the proposed centerline finish grade profile, in addition to the existing centerline profile with roadside ditch profiles;
   f. All vertical control points on or pertaining to the proposed centerline profile such as P.V.C., P.V.I., and P.V.T.; all low points and street intersections as to station and elevation;
   g. For all percent grades and for vertical curves design curves in accordance with the Roadway and Drainage Technical Standards contained as an Appendix to these Regulations;
   h. Centerline finished grade elevations every fifty (50) feet, or cut sheets, to the nearest hundredth of a foot, at the bottom of the profile sheet;
   i. The proposed location of all traffic signs, warning signs, and regulatory signs as required;
   j. The proposed location and layout for all pavement markings;
   k. The proposed design for all traffic signals, as required;
   l. All sheets shall be signed and sealed by a professional engineer registered in the State of Kentucky.

4. Grading, Drainage and Erosion and Sediment Control Plans

   A complete plan of the proposed development of a scale no less than one-inch equals one hundred feet (1" =50'). This plan is to include the North American Datum of 1983 (NAD 83) if available. A north arrow shall be shown on the plan. The source and date of the contour should be noted. Contours shall extend to the centerline of all roads bordering the site. Where drainage ultimately enters the groundwater via a sinkhole or drainage well, the drainage well,and the drainage area tributary to the sinkhole or drainage well shall be delineated. Two plan sets should be submitted for initial review.

   Omission of any of the below requirements for detailed plans and calculations shall render the application incomplete, and it will be returned to the applicant, or their design engineer, for additional information. In the event of a conflict between these requirements and the City Stormwater Management Ordinance, the latter shall govern. The following shall be included:

   a. Any existing or proposed easements.
   b. Location of proposed basins showing direction of flow, taking into account offsite runoff being routed through or around the project.
   c. Existing buildings on the property.
   d. Existing and proposed drainage structures, including inlets, catch basins, junction boxes, drive pipes, culverts, cross drains, headwalls, and outlet facilities, with size, type, slope (top and sides), invert elevations, and quantity indicated.
   e. Hydrologic and hydraulic calculations for appropriate design conditions and facilities.
   f. Detention pond control structure details. All Detention/Retention Areas require an emergency overflow, unless approved by the City Engineer.
   g. Any proposed swale ditches, channel changes, or improvements, with typical section and length of change indicated. If invert elevations are not on the drawing, then depth, slope, and top and bottom width (if varies from typical), or elevations of slopes with flat bottom width.

h. Any high water or flood lines, either calculated or observed in the vicinity of the proposed development, and the source of said line or elevation indicated.
i. All fill areas indicated as such, with the limits and elevations indicated. At least one benchmark located, with the proper elevation indicated for each subdivision.
j. The location and size of at least two (2) drainage structures immediately downstream of all Stormwater discharge points from the proposed development including ditch cross-sections. This may be shown on a vicinity map with a scale no less than 1" (one inch) = 2000' (two thousand feet).
k. Drainage arrows indicating the existing and proposed direction of runoff throughout the development.
l. Invert and top of grade elevations on all catch basins and inlets in addition to flow line elevations, stations, and percent grades of all cross drains and pipe between inlets and catch basins.
m. Floodplain areas require the following information: existing and proposed flood plain and floodway boundaries along with flood plain elevations, and minimum pad and floor elevations for buildings in the floodplain.
n. Temporary erosion and sediment control measures to be implemented during construction shall be shown on a separate sheet.
o. Driveway Culvert Size Chart, depicting each lot number with proposed culvert sizes.
p. Final stabilization measures proposed for all disturbed areas on the property. Areas with slopes 2:1 or greater shall be stabilized with rip rap, sod or by other methods approved by the City Engineer. Show stabilization for each ditch.
q. Where special structures such as box culverts, bridges, or junction boxes are proposed, detail plans showing dimensions, reinforcement, spacing, cross-sections, elevations, and other pertinent information shall be submitted.
r. Plans and engineering calculations shall be signed and sealed by a Kentucky registered engineer.

J. Final Plat

The Final Plat is the culmination of the land subdivision process. When approved and duly recorded as provided by law, the Final Plat becomes a permanent public record of the survey of the lots, public right-of-way, common open space, easements, and public lands. As such, it serves as a vitalinstrument in the sale and transfer of real estate, in the dedication of rights-of-way, easements and public lands, and in future land survey of the properties contained in or adjoining the subdivision.

Final Plat approval is intended to be a ministerial act. Therefore, all substantive planning of the subdivision and the preparation of required documents should be accomplished prior to submission of the Final Plat for Planning Commission review.

1. Conformance with the Preliminary Plat

The Final Plat shall conform to the Preliminary Plat and construction plans as approved; and, if desired by the applicant, it may constitute only that portion of the approved Preliminary Plat proposed for recording at the time, provided, however, that such portion conforms to all requirements and standards.

2. Submission Requirements

The applicant shall submit three (3) paper copies and one electronic PDF copy of the proposed Final Plat to the Planning Department, according to the schedule prepared by the department, as well as all applicable fees paid to the Planning Commission. At least five (5) business days prior to the Planning Commission meeting at which the Final Plat will be reviewed,the applicant shall submit ten (10) copies of the revised plat as required by the Planning Department for inclusion in the Planning Commission meeting packet. The approved Final Plat shall be recorded with the Simpson County Clerk's office where it will become the official plat of record The applicant shall be responsible for paying all recording fees.

3. Required Information

The Final Plat shall: meet the minimum standards of design as set forth in these regulations, be drawn to a scale of 1" = 100' on an 18" x 24" or 24" x 36" sheet (outside dimensions); and provide the following:

a. Statement of purpose for the plat.
b. The lines of all streets and roads, existing buildings, alley lines, lot lines, building setback lines, lots numbered in sequential/logical order, all easements and water quality buffers, and any areas to be dedicated to public use or sites for other than residential use with note stating their purpose and any limitations.
c. Location of existing and proposed fire hydrants.
d. Acreage/square footage of all proposed parcels on the plat.
e. Proposed public and/or private road names and lot addresses as approved by the Planning staff and Emergency Communications (E911).
f. Existing zoning(s) and setbacks chart with exceptions clearly depicted on specific lots.
g. Sufficient data to determine readily and reproduce on the ground the location, bearing and length of every street line, boundary line, block line and building line whether curved or straight, and including magnetic north point. This shall include the radius, central angle and arc length distance for the curved streets right-of-way and the curved property lines that are not the boundary of curved streets.
h. All dimensions to the nearest one hundredth (0.01) of a foot and angles to the nearest second.
i. Location and description of monuments.
j. The names and locations of adjoining subdivisions and streets, existing easements, and the location and ownership of adjoining un-subdivided property; map, parcel, book, page.
k. Date, title, name and location of subdivision, graphic scale, and magnetic north point.
l. Location sketch map showing site in relation to area.
m. Distance to nearest intersection.
n. As needed, the specific area to be used for sewage disposal, at the discretion of the Simpson County Health Department.
o. All required Stormwater notes.
p. Water wells, (existing and proposed). Where wells are proposed, the distance from the nearest water line shall be shown. When water wells are to be used, a note shall be indicated on the plat stating that the property in question may not be suitable for use by water well(s).
q. One hundred (100) year flood limit, including the floodway, as determined by most recently published FEMA maps on file with the Planning Commission, with that portion of the property lying below the one hundred (100) year flood elevation being shown shaded or hatched, along with minimum pad and floor elevations for impacted lots. Flood panel information shall also be shown.
r. Driveway Culvert Size Chart, approved by the design engineer, depicting each lot number with RCP culvert sizes that exceed fifteen (15) inches in size. Any lot that is not listed in

the chart shall have a fifteen (15) inch minimum RCP driveway culvert size.

s. All lots that have some geographic feature (i.e., sinkhole, flood plain, or drainage facilities) that would affect the location and construction of a structure/building, parking, accessory structures, or utilities (i.e., water, sewer, septic tank, well, electricity, phone) shall have a specific notation placed on the affected lot or in an appropriate location on the Final Plat that is readily visible.

t. If the Final Plat depicts a portion of the development that has common ownership, plans for improvements and maintenance of the common areas shall be presented to the Planning Commission for verification before recording of the Final Plat.

u. A plat note stating the recording information of the articles of incorporation, bylaws and declaration of covenants and restrictions of the homeowner's association if required.

v. A plat note stating the recording information of the Stormwater Maintenance Agreement if required.

v. Block showing time and date of recording, along with plat book and page numbers.

w. Critical Lots, as identified within these Regulations.

x. Notation of Possible Flooding – If any portion of the land being subdivided is subject to flooding, as defined in these regulations, a notation shall be made on the plat that development or modification of the land within any floodway delineated on the plat is prohibited and that development within floodway fringes delineated on the plat shall be done in such a manner that any structure shall be protected against flood damage to at least the regulatory flood protection elevation, which elevation shall be stated in the notation. Any additional restrictions imposed by the Planning Commission upon development within flood-prone areas also shall be indicated on the plat.

y. Notation of Health Restrictions – Any modifications or limitations which may be imposed by the Simpson County Health Department shall be clearly indicated on the plat.

aa. Notation of Private Restrictions – Private restrictions and trusteeships and their periods of existence shall be indicated on the plat. Should these restrictions or trusteeships be of such length as to make their lettering impracticable and, thus, necessitate the preparation of a separate instrument, reference to such instrument shall be made on the plat or, if the restrictions and trusteeships are of record, the plat shall note where they are recorded.

4. Notations and Certifications

Meeting minutes and Planning Administrator documentation of department and utility improvements approvals will stand for all signature approvals. Individual certification blocks will not be required on plats for recording.

5. Owner's Deed

The applicant shall furnish the Planning Department a copy, in paper or electronic format, of the owner's deed and the final plat shall show deed book and page number where deed is recorded.

6. Plat Filing

It shall be the responsibility of the Planning Administrator to file the plat with the Simpson County Clerk's office within one hundred eighty (180) days of the approval date by the Planning Commission. When the plat is filed, the property owner or their agent simultaneously shall record the agreement of dedication together with such legal documents as the City Attorney may require to be recorded. Any plat not being filed with the Simpson County Clerk's office within the period of time set forth herein shall be considered null and void. The developer shall therefore be required to submit new subdivision development plans and obtain approvals for such plans, subject to any new zoning restrictions and/or subdivision regulations.

K. Miscellaneous Platting Situations

1. Consolidation Plat

   Any number of existing lots of record may be combined into an equal or lesser number of lots by submittal of a Final Plat as described in this article. The Final Plat shall additionally show the original lot lines as dashed lines and the proposed lot lines as solid. Combining lots shall require approval by the Planning Director. Any lots resulting from such consolidation shall meet all applicable regulations. Consolidation plats that require a waiver from these regulations shall be deemed to be a Major Subdivision.

2. Condominium Plat

   a. Any public or private infrastructure, easement, dedications or other improvements/ encumbrances shall be platted in accordance with the applicable sections and procedures of these regulations.
   b. The platting of individual condominium units in accordance with an approved Preliminary Plan, Site Plan, PUD Master Plan, or other document shall be in accordance with the Kentucky Condominium Act rules and requirements.

3. Subdivision Plat Amendments

   Subdivision Plats which have been previously approved and recorded with the Simpson County Clerk may be amended with the signature of the Planning Administrator provided that such changes are minor in nature.

   a. The grounds for such Plat Amendments by the Planning Administrator shall be limited to the following:
      (i) Correction of Scrivener's and other inadvertent typographic errors and omissions upon the face of the plat, provided that such corrections do not alter the intent of the original approval;
      (ii) Alteration of depicted septic soil areas, provided that such areas do not cross lot lines, and further provided that the approval of the Simpson County Health Department is also obtained with the Plat Amendment;
   b. Plat Amendments shall state clearly the action being taken, shall clearly and prominently reference the plat being amended and shall be recorded with the Simpson County Clerk after obtaining all approvals.
   c. Any visual depiction of the Plat Amendment shall have a signature block for the Planning Commission Secretary upon its face, in addition to any signature areas contained elsewhere in the document.
   d. Any fees set for planning review of Minor Plats as defined herein shall also apply to Subdivision Plat Amendments.
   e. Any Plat Amendment, which shall be deemed to be outside the scope of the above limitations, shall be required to submit a Major or Minor Subdivision Plat as defined by these regulations for approval, and as determined by the Planning Director. Examples of such requests include, but are not limited to, those which may seek to:
      (i) Alter a depicted or described public drainage easement, utility easement, or Ingress/Egress easement;
      (ii) Add a new public drainage easement, utility easement, or Ingress/Egress easement;
      (iii) Alter a depicted lot line
   f. For applications consisting of existing lots of record which cannot meet current state septic requirements and cannot be replatted, the Planning Commission may approve a waiver to these requirements provided that a signed letter is provided from the local Health Department stating that all options have been exhausted related to correcting septic system deficiencies.

(i) Such waiver shall be submitted for the proposed plat amendment in accordance with other waiver requests as provided herein.

L. GIS Submittal

All plans and plats submitted for consideration under these regulations must have a minimum of four points which shall form a closed polygon that encompasses the entire project submitted. Additional points which permit definition of sub-polygons within the project will be acceptable and desirable. These points must be defined in terms of the following geographic coordinate system: Decimal fractions of a degree Kentucky State Plane Coordinates. The coordinate system selected must maintain a minimum precision corresponding to the following standards for each individual coordinate type for both X and Y coordinates:

Kentucky State Plane: each coordinate pair must be defined to the nearest tenth of a foot; for example, a coordinate of "(525,042.7, 1,826,294.1)". These coordinates may be presented in a tabular format on the plat similar to curve data tables.

Upon resubmittal during review process, prior to final approval, in addition to the paper copies required, DWG and PDF files shall be submitted in a recordable media format or emailed to a designated representative of the Planning Department. The purpose of this requirement is to facilitate the input of new development plats into the City's computerized Geographic Information System for analysis, storage and retrieval.

ARTICLE III MINIMUM DESIGN STANDARDS

A. General Requirements

1. Compliance with Other Laws

   In addition to the requirements established herein, divisions of land and improvements constructed thereupon shall comply with all applicable laws, ordinances, resolutions, rules, or regulations, including, but not limited to the following:

   a. All applicable provisions of Kentucky law, regulations or policy;
   b. The City Comprehensive Plan, Franklin-Simpson Planning and Zoning Regulations, International Building Code, City of Franklin Code of Ordinances' and all other applicable ordinances, rules, or regulations of the city;
   c. The City Stormwater Management Ordinance;
   d. The rules of the Kentucky Department of Environmental Protection;
   e. The rules of the Kentucky Transportation Cabinet (if the subdivision or any lot contained herein abuts or encompasses an existing or proposed state highway or state route);
   f. The standards and regulations adopted by other boards, commissions, and agencies of the City, where applicable;
   g. City of Franklin Sewer Use Ordinance;
   h. City of Franklin Standard Utility Specifications;
   i. All of the contents of these Regulations including, but not limited to Appendix F and all other appendices.

2. Minimum Requirements

   These design standards shall be considered minimum requirements and may be increased at the direction of the City Engineer in order to address conditions that may be unique to a particular site. Any on-site or off-site engineering improvements shall be in accordance with these regulations and the City Stormwater Management Ordinance. Design of streets shall follow the latest editions of these subdivision regulations, the KYTC "Highway Design Guidance Manual" and the AASHTO "A Policy on Geometric Design and Highways and Streets" unless otherwise noted. Also, other relevant KYTC, AASHTO, FHWA and ITE design documents should be consulted for guidance. The City Engineer shall make the final decision if any questions or conflicts arise between any of these standards.

3. Land Survey and Reference Monument Requirements

   Land surveys shall be conducted, and permanent reference monuments shall be placed by the subdivider in accordance with the guidelines set forth in the Rules of Kentucky State Board of Examiners for Engineers & Surveyors Standards of Practice.

B. Subdivision and Street Names

The developer shall provide names for consideration by the Planning Administrator or other designated persons for all new streets within the subdivision proposed to be developed at the time of Preliminary Plat review. The proposed name of a subdivisionor street within the subdivision shall not duplicate or closely approximate phonetically the name of any other subdivision or street within the City or within Simpson County. The Planning Commission or City Commission shall have final authority over street names. Proposed streets that are obviously in alignment with others already existing and named should bear the names of existing streets.

C. Street Design Principles

The purpose of this section is to promote the health, safety and general welfare of the City, and to ensure compliance with the following principles:

1. Streets will respect the built and natural contexts through which they pass;

2. Streets will support all modes of travel, where contextually appropriate, to foster the ability for people to choose how they move about the City;

3. Streets will strike a balance between appropriate vehicular operational efficiency and safety for all users, regardless of their choice of travel mode;

4. Street design will support the types of development and redevelopment appropriate for the character area in which they occur; and

5. Streets will accommodate pedestrian access, movement, and protection for the physically able, physically challenged, children or seniors within appropriate areas of the City.

D. Conformity of Street Design and Alignment

1. Conformance with Major Thoroughfare Plan
   All proposed streets and roads and pedestrian accommodations shown on a proposed Major Subdivision Plat shall conform to the width and location requirements as set forth by the City's Comprehensive Plan, and/or these Subdivision Regulations. See the Roadway and Drainage Technical Standards Appendix D for supplemental design standards and broad cross section graphics.

2. Relation to Adjoining Street System
   The Planning Commission shall require that the proposed street system extend and connect to existing streets and "road-stubs" wherever feasible. Deviations from this requirement shall be requested by the applicant as a waiver from these regulations.

3. Major Thoroughfare Design and Right of Way Widths (All Streets other than Local Streets)
   Street design standards and minimum right-of-way widths for all streets are shown in the table below. Should there be a conflict between an existing major thoroughfare and the Subdivision Regulations, then the existing major thoroughfare shall govern. See Appendix D for cross section graphics correlating with the table on the following page.

4. Dedication of Right-of-Way for One or Both Sides of Street
   The entire right-of-way shall be provided where any part of the subdivision is on both sides of the existing street. When the subdivision is located on only one side of an existing street, one-half (½) of the required right-of-way measured from the centerline of the existing roadway, shall be provided.

5. Improvement of Substandard Roads
   In approving a Plat for a development, the Planning Commission may require that impacted sub-standard City roads prior to the adoption of these regulations be improved by the developer to the minimum standards contained in these regulations. Such improvements shall be commensurate with the impact of the proposed development, and whenever possible, shall be supported by traffic studies conducted at the developer's expense per the Franklin-Simpson Zoning Regulations and these Regulations.

General Roadway Cross Sections-City of Franklin								
Street Type	Travel Lanes (Min.)	Design Speed (mph)	Min. Right of Way	Shoulder Width*	Lane Width (Min.)	Turn Lanes	Curb/Curb & Gutter	Sidewalk Width
Place or Alley	2	20	20'	n/a	9'	n/a	yes	n/a
Lane	2	25	50'	n/a	10'	n/a	yes	5'
Minor Collector	2	30	50'	n/a	13'	n/a	yes	5'
Major Collector	2	40	60'	-	14'	n/a	yes	5'
Arterial	2	45+	80'	-	14'	yes	n/a	6'-8'
Marginal Access	2	25	40'	n/a	13'	n/a	yes	n/a

Minimum right of way should be determined upon context and the potential number of travel lanes
*Shoulder width can vary based on designation (e.g., bike route)
Places and Lanes-Minor Local Roads include both these types

6. Restriction of Access
When a tract fronts on a collector, arterial or major highway the Planning Commission may require that such lots have access provided from a marginal access street or from adjacent streets with internal access.

7. Alleys
   a. Alleys are minor ways which are used primarily for vehicular service access to the back or side of properties otherwise abutting on a street. Wherever reasonable, alleys accessing the rear of lots should be utilized for all land uses. Alley access should be encouraged by the Planning Commission as an alternative to front access off of streets. In some cases, alley access shall be the only option, as with commercial and mixed-use areas where a pattern of front driveways does not already exist because of a pedestrian orientation and shallow building front setbacks. Alleys can also be an alternative to cross-access requirements since they perform the same function at the rear of lots.
   b. In Planned Unit Developments, in which deviations from standard lot widths may be allowed, alleys shall be required, and front driveways prohibited for blocks featuring any residential lots that are fifty (50) feet or less in width.
   c. Alleys shall have a minimum width of twenty (20) feet and a maximum width of twenty-four (24) feet.
   d. In no case shall maintenance of alleys become the responsibility of the City. All alleys shall be maintained in perpetuity by a Homeowners' or other Property Owner's association.

8. Dead End Streets

   a. Cul-de-sac streets may only be planned where conditions require their use because of barriers to connecting to other existing or planned streets such as topographic challenges, streams, railroad lines, and similar natural or manmade barriers. Cul-de-sac streets may not have a length greater than fifteen hundred (1,500) feet unless approved by the Planning Commission for stated reasons related to topography or other physical hardship.

   b. The Planning Commission shall require the developer to provide public street access to adjoining properties where feasible. Proposed streets shall be extended by dedication to the boundary of such property. Such dead-end streets, when their length exceeds one hundred fifty (150) feet, shall provide a turnaround having the right-of-way diameter of at least one hundred (100) feet and built as specified in these Subdivision Regulations. Additional guidelines for Dead End Streets are contained in the Roadway and Drainage Technical Standards Appendix to these Regulations. Temporary cul-de-sacs will be required with the

phasing of street sections.

9. Private Streets and Reserve Strips
   a. There shall be no private streets platted in any Subdivision. Every lot in all other subdivided properties shall continuously abut at least one public street for the minimum lot width as set forth in the Zoning Regulations.
   b. There shall be no reserve strips controlling access to streets.
   c. Gated Communities must provide police, utility, and emergency vehicle access by Knox Box or equivalent. All such entities must approve the Knox Box system with an approval letter provided to the Planning Administrator with the Final Plat. No Building permits will be granted until all entities have confirmed access ability to the said Know Box to the Planning Administrator.

10. Access to Public Roads
   a. No lot may be less than seventy-five (75) feet wide at any point between the front building setbackline and the road right of way or as specified in the Zoning Regulations.
   b. No new lot shall be created which does not continuously abut at least one public street for at least seventy-five (75) feet. An easement shall not satisfy this requirement.
   c. No building shall be erected on a lot which does not continuously abut at least one public street for at least seventy-five (75) feet. An easement shall not satisfy this requirement.
   d. The following exceptions shall apply to this section:
      i. Lots approved as part of a Planned Unit Development.
      ii. Previously existing lots of record with easements to a public street. There can only be one tract accessing the private street/road easement.
      iii. A lot with more than 0ne-half its frontage on the bulb of a cul-de-sac must continuously abut the street for at least thirty (30) feet.
      iv. Parcels or tracts of land which contain five (5) acres or more.

E. Block Design

1. General
   Blocks shall be laid out with special attention given to the type of land use and development form contemplated, and they shall be rectilinear unless natural or man-made barriers constrain such a form.

2. Key Design Factors
   The size and shape of blocks shall be determined with consideration of the following issues:

   i. Provision of adequate building sites suitable to the special needs of the type of use contemplated.
   ii. Zoning Regulations and Health Department requirements for lot sizes and dimensions.
   iii. Needs for convenient access, circulation, control and safety of street traffic.
   iv. Environmental opportunities and constraints.

3. Block Lengths
   Block lengths in residential areas shall not exceed twelve hundred (1,200) feet nor be less than two hundred (200) feet or four (4) lot widths whichever is greater, except as the Planning Commission deems necessary to secure efficient use of land or desired features of the street pattern. Wherever practicable, blocks along arterial streets shall not be less than one thousand (1,000) feet in length. For blocks over six hundred (600) feet long, the Commission may require mid-block public crosswalks at least ten (10) feet wide, especially when providing access to schools, shopping areas, parks, other community facilities, and similar places accommodating a

significant number of pedestrians.

4. Block Widths
Blocks shall be wide enough to provide two (2) tiers of lots of minimum depth, except where fronting on freeways, expressways, major thoroughfares or rail lines, or prevented by topographical conditions or size of the property. In such case, the Planning Commission may approve a subdivision containing a single tier of lots of minimum depth.

5. Commercial and Mixed-Use Blocks
Blocks used for commercial and mixed-use purposes, not including industrial areas, shall be no longer than six hundred (600) feet and the perimeter shall not exceed twenty-four hundred (2,400) feet.

F. Lots

a Adequate Building Sites

i. Each lot intended for building improvements shall contain an area outside the limits of any existing easement or building setback lines required in the Zoning Regulations. This does not apply to common open space lots with no structure(s).
ii. Corner lots shall have extra width sufficient to permit the additional side yard requirements of the Zoning Regulations or building setback lines outlined above.
iii. All lots that have some geographic feature (i.e., sinkhole, floodplain, or drainage easements) that would affect the location and construction of a structure/building, parking, accessory structures, or utilities (i.e., water, sewer, septic tank, well, electricity, phone) shall have a specific notation placed on the affected lot or in an appropriate location on the final plat by the applicant's engineer or surveyor that is readily visible.

b. Arrangement

i. Insofar as practical, side lot lines shall be at right angles to straight street lines or radial to curved street lines. Each lot must front upon a public street or road, except as permitted under these regulations.

2. Critical Lots
Lots may be designated as critical based on soil conditions, susceptibility to flood inundation, karst features, stream encroachments, degree of slope or other lot features to address concerns related to the feasibilityof construction as determined by the City Engineer. Generally, a lot will be designated critical when the slope is greater than 12%. A star symbol shall be used to identify critical lots on the face of both the Preliminary and Final plats.

Prior to application for a building permit on a lot designed as "critical," a plan shall be submitted to the City Engineer for approval. The plan shall provide a survey of existing conditions and details of the proposed development on the lot. Critical lots will not be released for construction of a structure until a critical lot plan is approved by the City Engineer. The City Engineer shall be specifically authorized to require that floor elevations be raised as part of a critical lot plan, whether or not the lot in question lies within a regulatory flood area.

3. Retaining Walls

The standard policy of the Planning and Building Codes Departments is as follows for retaining wall design. This policy is based on the section R404.4 Retaining Walls as contained in the International Residential Code.
Retaining walls that are not laterally supported at the top and that retain in excess of 48 inches

(1219 mm) of unbalanced fill, or retaining walls exceeding 24 inches (610 mm) in height that resist lateral loads in addition to soil, shall be designed in accordance with accepted engineering practice to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning. This section shall not apply to foundation walls supporting buildings.

For commercial projects, additional IBC references: 1610.1; 1803.5.12; 1807.2

G. Stormwater Management Facilities

1. Maintenance Plan and Agreement
   i. Every land development or construction activity that results in the construction of permanent Stormwater management facilities, including but not limited to detention ponds, rain gardens, or any other facility intended to manage Stormwater quality or quantity shall provide a permanent Stormwater maintenance plan and agreement that provides for the perpetual care and maintenance of the Stormwater management facilities for the development by an entity other than the City of Franklin and/or Simpson County. Such perpetual residential stormwater facility care will be in all instances the responsibility of the Homeowner's Association (see Appendix A for a definition).

   ii. The Maintenance Plan and Agreement shall operate as a deed restriction binding on the current and all subsequent property owners and their lessees and assigns, including but not limited to homeowner associations or other groups or entities. A template for said agreement is to be provided in the Public Works Director.

2. Master Deed or Covenants
   All subdivisions required by the City Zoning Regulations to have a Homeowner's Association (HOA), as well as any subdivision electing to establish a HOA, shall include provisions in their Master Deed, or declaration of covenants, to provide for a sufficient level of funding to offset the reasonable and foreseeable costs of the perpetual maintenance of all drainage infrastructure within the subdivision.

3. Utility and Drainage Easement
   All Stormwater infrastructure must be located completely within a Public Utility and Drainage Easement. Minimum total easement width is twenty (20) feet. Deviations from this requirement may be requested in writing to the Planning Administrator. Easement widths must be large enough to accommodate infrastructure and maintenance needs. Drainage Easements for all detention or retention facilities shall extend a minimum of twenty-five (25) feet from the outer limits of the pond perimeter. Access to all such facilities must be clearly delineated on the Construction Plans and the Recorded Plat.

H. Subsurface Sewage Disposal Systems (Septic Tanks)

1. Reserved Area for Septic Systems
   Subdivision lots not provided with City sewer access shall have adequate area for the installation of an approved septic system onsite and shall not rely on an easement from adjoining property for sewage. Appeals to this rule may be made via a variance or exception request to the Planning Administrator, which may grant an exception at its discretion. The date of any approved appeals shall be clearly noted upon the final recorded plat.
2. State Regulations
   Proposed building sites shall meet the requirements of the State of Kentucky's regulations to govern subsurface sewage disposal systems.

I. Areas Subject to Periodic Flooding or Inundation

Any tract of land with Federal Emergency Management Agency (FEMA) designated floodway and/or floodplain, or in an area known or calculated to be subject to periodic flooding or inundation as determined by the City Engineer, shall be subject to all applicable provisions contained in the City Zoning Regulations or with FEMA guidelines per the National Flood Insurance Program.

J. Building Setbacks, Proximity to Electric Transmission Lines

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

Voltage of Line	Building Setback
46 KV	37.5 feet
69 KV	50 feet
161 KV	75 feet

K. Access to Lots

1. Double Frontage Lots

   Double frontage and reversed frontage lots shall be avoided except where necessary to provide separation of residential development from traffic arterials, or to overcome specific disadvantages of topography and orientation. When double frontage occurs, the road frontage adjacent to the rear of the associated buildings shall be heavily screened with a naturalistic complete year-round buffer to minimize visibility from that roadway. Such landscaping must include a sufficient number of evergreens or other buffer approved by the Planning Commission to achieve this requirement during winter months. All of that landscaping must occur on the subject lot as opposed to within the adjacent ROW. See appendix F for Buffer details.

2. Access from Arterial or Collector Streets

   The Planning Commission may require that lots shall not, if avoidable, derive access exclusively from arterial or collector streets. Where driveway access from arterial or collector streets may be necessary for several adjoining lots, the Planning Commission may require that the lots be served by a combined access drive in order to limit possible traffic hazards on such street. Driveways shall be designed and arranged so as to avoid requiring vehicles to back onto arterial or collector streets. In no case shall lots deriving sole access from an arterial or major collector street have widths of less than200 and 150 feet respectively.

L. Water Facilities and Fire Protection

1. General Requirements
   a. Necessary action shall be taken by the developer to extend a water supply system capable of providing domestic water use and fire protection, the provision of which is hereby declared a priority of the Planning Commission.

   b. Where a public water main is within reasonable access of the subdivision, as determined by the Planning Commission, the subdivider shall install adequate water facilities, subject to the construction and materials specifications and approval of the State of Kentucky and requirements herein. This is to include installation of fire hydrants where required by these provisions or provisions of the local utility provider and only if the water system can deliver the water flow and water pressure to a fire hydrant of 500-gpm at 20-psi residual pressure.

   c. The sizes of water mains shall not be less than six (6) inches in diameter.

   d. All water systems, whether public or private, located in a flood-prone area shall be flood-proofed to the regulatory flood protection elevation. All water supply facilities located below the regulatory flood protection elevation shall be designed to prevent the infiltration

of floodwaters into the water supply system and discharges from the system into floodwaters.

2. Fire Hydrants

a. If the pressure and water flow for public water mains are sufficient to meet State regulations for fire hydrant installation, fire hydrants shall be installed in all Major Subdivisions.

b. If the water system can support the installation of fire hydrants, then the applicant shall install them such that they shall be located no more than five hundred (500) feet apart and be within two hundred fifty (250) feet of any residential, commercial, or industrial lot. However, the Planning Commission or Public Works Department may require closer spacing where physical conditionsor types of structures so warrant.

c. If the pressure and flow for public water mains are not sufficient to meet State regulations for fire hydrant installation, the water system shall provide sufficient main size per State regulations for fire hydrants and shall install "stub-out" fittings, appurtenances and valves as required by the fire hydrant location provisions herein and the local utility provider. The location of the "stub out" fittings shall be shown on the Final Plat and on the construction plans.

d. To eliminate future public way cuttings or openings, all underground utilities for water facilities and fire hydrants, together with the fire hydrants themselves, shall be installed before any final paving of a public way shown on the Subdivision Plat.

M. Pedestrian Ways

1. Sidewalks

Provision of adequate pedestrian facilities as appropriate throughout the City is hereby declared a priority of the City Commission. Sidewalks shall be required by the Planning Commission for Roadways as set forth in these regulations and shown in the Roadway and Drainage Technical Standards.

a. Sidewalks shall be constructed on both sides of the street if the subdivision encompasses such area. Sidewalk widths shall be at least five (5) feet in width. Concrete Extruded Curb or Curb & Gutter are required for all public roads where sidewalks are to be constructed.

b. A recommended median strip of grassed or landscaped area five (5) feet wide shall separate all sidewalks from adjacent curbs. See Appendix D for design and alternate details.

c. All sidewalks shall comply with requirements contained in the Americans with Disabilities Act and Proposed Public Right of Way Access Guidelines (PROWAG) as applicable.

d. The installation of sidewalks shall be required prior to a final inspection and/or the issuance of a Certificate of Occupancy.

2. Pedestrian Accesses

The Planning Commission may require pedestrian access from public or private roads to schools, parks, playgrounds, or other nearby public roads. A perpetual unobstructed easement at least twenty (20') feet in width shall be provided. Easements shall be indicated on the Final Plat. When a proposed subdivision abuts such a public facility, the Planning Commission may require that the developer construct a sidewalk, walking trail, multi-use path or other pedestrian conveyance to the facility's property boundary. Such conveyance shall interconnect with the other pedestrian improvements contained within the development.

N. Street Lighting

1. All subdivisions in the City of Franklin must be provided with streetlights with the design to be approved by the Franklin Simpson Electric Plant Board (EPB) or Warren Rural Electric Cooperative Corporation (WRECC). The electric supplier will provide streetlights to a subdivision. The developer is responsible for coordinating with the EPB or WRECC for the street poles or underground service (see Appendix G for lighting standards). Street lighting shall be shown on the subdivision's final plat and shall include all electrical easements. The general location of street lighting should be shown on the subdivision's construction plans for informational purposes.

O. Aesthetics

Subdivision aesthetics and buffer requirements shall be as set forth in Appendix F.

ARTICLE IV ASSURANCE FOR COMPLETION AND WARRANTY OF IMPROVEMENTS

A. Timing of Improvements

1. Infrastructure Installation *After* Final Plat Approval
   Adequate Performance Surety for all improvements must be provided by the applicant and approved by the Planning Commission and City Staff and held by the City in accordance with this article. Such Performance Surety shall be submitted for Planning Commission consideration concurrently with the Final Plat application.

2. In no case shall a Final Plat be signed by the Planning Commission Secretary until such time as all depicted infrastructure is fully bonded by and through the Adequate Performance Surety, and in no case shall building permits be issued until such time as a Final Plat is recorded.

B. Performance Surety

1. Required Improvements
   The applicant shall post Adequate Performance Surety (also referred to herein as "Performance Surety") for all unconstructed public improvements shown on the Plat and Construction Plans associated with that phase or section being recorded. Any amounts necessary for the construction of drainage structures and improvements depicted on the construction plans shall also be included in the Performance Surety. The developer will submit construction costs (supported by a reputable contractor's bid) to be reviewed by the City. The City will set the Performance Surety amount as sufficient to secure the satisfactory construction, installation, and acceptance of required improvements.

   The Performance Surety shall remain in force until the improvements comply with the approved construction drawings as determined by the City and all warranty periods are expired.

2. Performance Surety Amount
   The minimum amount of the Performance Surety shall be an amount equal to not less than one-hundred and twenty (120) percent of the cost of installation of required improvements. The proposed amount of the cost of materials and installation of required improvements shall be calculated and signed by the applicant's contractor and submitted to the City for approval. The proposed amount shall include a detailed itemized estimate of all items including incomplete items on the date the estimate is prepared.

3. Composition of Performance Surety
   For the purpose of these regulations, Performance Surety shall consist of two (2) documents: A Performance Agreement provided to the Public Works Department and an accompanying security document.
   a. *The Performance Agreement:* The Performance Agreement shall be in a similar form as shownin the relevant appendix to this document and shall stipulate the work to be performed by general categories and the estimated value or cost of each category. The PerformanceAgreement shall be entered into by owner or developer of the property, the lending institution, and approved and signed by the City, but shall run with the land and likewise, jointly and severally, obligate subsequent owner(s) as stated in the Performance Agreement.
   b. *The Security Document (Irrevocable Letter of Credit):* The security document shall be in a similar form as shown in the relevant appendix to this document and shall express the value in atotal amount equaling the sum of all work categories. Further, the Security

Document must be acceptable to the City in its terms, the amount of the security, and financial institution providing said document.

4. Owner/Developer Past Performance
The Letter of Credit option shall not be available to an owner or developer, without specific Planning Commission approval, whose past performance over the two (2) preceding calendar years has resulted in breached or expired bonds.

5. Financial Institution Past Performance
A financial institution whose past performance has resulted in non-payment of a letter of credit may be excluded from providing a letter of credit for any owner or developer for a period of five (5) calendar years from the date of breach as determined by the Planning Commission.

6. Temporary Improvements
When applicable, the applicant shall build and pay for all costs of temporary improvements required by the Planning Commission and shall maintain such for the period specified by the Planning Commission. Prior to construction of any temporary facility or improvement, a performance surety shall be posted which shall insure that the temporary facilities shall be properly constructed, maintained, and removed.

7. Costs of Improvements
All required improvements shall be made by the applicant at the applicant's expense. Any provisions for reimbursement by the City or any utility district shall be by separate agreement with the City.

8. Governmental Agencies
Governmental agencies to which these sureties and contract provisions apply may file, in lieu of said contract or surety, a certified resolution, or ordinance from officers or agencies authorized to act in their behalf agreeing to comply with the provisions of this chapter.

9. Failure to Complete Improvements
In those cases, in which a performance surety has been posted and required improvements have not been installed within the terms of such performance surety agreement, the City may declarethe surety to be in default and require that all the improvements be installed regardless of the extent of the building development at the time the performance surety is declared to be in default.The funds of the performance surety shall be used to complete the improvements. The City may, in the pursuit of executing the committed improvements, exercise the right to file suit against all entities, jointly and severally, responsible for said obligations.

C. Inspection of Improvements

1. City Responsibility
The City shall be responsible for the roads and drainage inspection on all subdivisions within the City. The City shall be notified not less than twenty-four (24) hours in advance of any critical phase of development including the following:

a. Beginning of the excavation,
b. Preparation of the subgrade,
c. Drainage structures/pipe installation,
d. First lift of the DGA material,
e. Second lift of the DGA material,
f. Asphalt base,
g. Asphalt Surfacing

2. Applicant Responsibility
If the City finds that any of the required improvements have not been constructed in accordance with the approved construction standards and specifications, the applicant shall beresponsible for completing the improvements to the required standards. Whenever the cost of improvements is covered by a performance surety, the applicant and the bonding company or financial institution shall be liable jointly and severally for completing said improvements according to specifications.

3. Completion of Roads
Thirty-six (36) months after the approved installation of the asphalt binder course or after seventy-five (75) percent of the lots have a Certificate of Occupancy, whichever is sooner, all roads included on the Final Plat must be completed in accordance with the City Roadway & Drainage Technical Standards appendix of these regulations, to include final asphalt surface course.

4. Drainage Facilities
Before a building permit shall be issued, all drainage facilities must be installed per the approved Construction Plans. Also, all areas within the limits of the Final Plat, if no construction is being performed, must have final site stabilization. These areas must be inspected and approved by the City.

5. As-Built Plans
All applicants are required to submit "As-Built" plans for all roadways and drainage structures located on site after final construction is complete. The plans must show the final design specifications for all infrastructure and must be sealed by a registered Professional Land Surveyor or Engineer licensed to practice in the State of Kentucky. A final inspection and approval of submitted As-Built drawings by the City is required before any building permits will be issued and/or Performance Surety will be released.

6. Protection of Site and Adjoining Sites
During the progress of construction, the Contractor shall remove all debris, unused materials, and trash from the site before the construction is completed. He shall restore the site to a well-graded appearance. Trash, man-made materials, stumps, or other debris shall not be left on site or buried onsite.

D. Warranty Period

After the final surface asphalt course is installed and all other improvements represented on the Final Plat and Construction Plans are complete, the Engineer of Record shall submit a stamped Certification of Completion to the City Public Works Director. After a final inspection is completed by the City and verification that all improvements are in agreement with the Final Plat and Construction Plans, notification will be given to the developerof the beginning of a one (1) year minimum warranty period. A warranty bond in the amount of not less than ten (10) percent of the surety amount, as determined and required by the City, will remain in place during the warranty period to cover any warranty or maintenance issues that may arise.

E. Reduction, Extension, or Release of Performance Surety

1. Reduction of Performance Surety
After a written request from the developer, received no later than sixty (60) days prior to the

expiration of a performance surety, a performance surety may be reduced upon demonstration of satisfactory completion of public improvements, and then only to the ratio that the installed improvement bears to the total public improvements for the subdivision. The initial surety reduction shall be considered only after the asphalt surface binder is applied to the entire subdivision phase as platted. There shall be no reduction or release of a surety if there are any outstanding administrative penalties or violations related to the bonded/surety secured site.

2. Extension of Performance Sureties
The Planning Commission may, upon proof of extenuating circumstances by the applicant, vote to extend the completion date set forth in such surety by a period of time not to exceed one (1) year. One additional extension of a period of time not to exceed six (6) months may be approved by the Planning Commission, upon proof of extenuating circumstances shown by the applicant. At the time either of these two extensions is applied for, the Public Works Director may modify the amount of the surety in order to cover the costs of the remaining improvements.

3. Release of Performance Surety
The Performance Surety shall not be released until the Certification of Completion from the Engineer of Record is approved by the Public Works Director and acceptance of all infrastructure that is required to be accepted within the right-of-way by the City.

4. Defer to Planning Commission
The Public Works Director may at his/her discretion, defer decisions to reduce, extend or release a surety to the Planning Commission, with such requests to be heard only at regularly scheduled meetings of the Planning Commission.

F. Maintenance of Improvements
The applicant shall be required to maintain all improvements, including all lot improvements, until acceptance of such public improvements by the appropriate department or maintenance responsibilities become the responsibility of a Homeowner's Association.

G. Expiration of Surety
Should the surety lapse or expire for any reason prior to completion of all required improvements, no additional building permits shall be issued and any and all appropriate legal action necessary may be taken to assure completion of improvements or reinstatement of the surety. The surety may be declared in default and the security shall be held by the City. Only after completion of all improvements or posting of a new surety shall building permits again be issued.

H. Disposition of Liquidated Securities
Funds derived from liquidation of securities as a result of performance agreement default shall be used by the applicable City Department or utility district to stabilize the site and complete work deemed essential by the City. Project administration fees may be charged by the departments or utility district against liquidated funds to offset actual personnel or equipment costs utilized in the accomplishment of required work. Any surplus funds shall be returned to the security provider after all charges and expenses are paid and required work is accepted.

ARTICLE V ENFORCEMENT AND PENALTIES VIOLATIONS

The enforcement of these regulations and penalties for the unapproved recordation of transfer of land are provided by state law in the authority granted by public acts of the Commonwealth of Kentucky and are in addition to or in conjunction with the provisions of this Article V.

A. Enforcement

1. Planning Commission Approval for Recording of Lots
   No plat or plan or a subdivision of land into two (2) or more lots located within the area of planning jurisdiction shall be admitted to the land records of the City or received or recorded by the Simpson County Clerk until said plat or plan has received final approval in writing by the Planning Commission.

2. Acceptance of Improvements
   No board, public officer, or authority shall accept any street, lay or authorize the layout of water mains or sewers, or the construction of other facilities or utilities in any street located within the area of planning jurisdiction unless such street shall have been accepted, opened or otherwise received the legal status of a public street prior to the adoption of these regulations.

3. Access to Lots by Permanent Easements
   No building permit shall be issued, and no building shall be erected on any lot within the City, unless such building site conforms to the following provisions:

   a. The street giving access to the lot upon which the building is proposed to be placed has been opened as, or shall have otherwise, received the legal status of, a public street prior to that time; or

   b. The street corresponds in its location and lines with a street shown on a subdivision plat approved by the Planning Commission and recorded in the office of the Simpson County Clerk and where an adequate guarantee or performance surety of and for the completion of improvements is in place.

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

5. Enforcing Officer
   It shall be the duty of the Planning Administrator, Code Enforcement Officer and/or his, her, or their designees to enforce these regulations and to bring the violations or lack of compliance with these regulations to the attention of the City Attorney and/or the Franklin-Simpson Code Enforcement Board.

B. Penalties

1. Planning Commission Approval Requirement
   The Simpson County Clerk shall not receive, file, or record a plat of a subdivision within the City without the approval of the Planning Commission, with the written approval to accompany the plat for filing.

2. Unlawful Building or Structure
   Any building or structure erected or to be erected in violation of the subdivision regulations shall be deemed an unlawful building or structure, and the Planning Administrator, Code Enforcement Officer, or the local or state Building Inspector may bring action to enjoin such erection or cause it

to be vacated or removed.

3. Land Sold in Violation of Subdivision Regulations

When it has been discovered that land has been sold or transferred, or that a contract has been entered into for the sale or transfer of land in violation of the provisions of these regulations, the owner or owners of record shall file plats of the land in accordance with these regulations. When land is sold or transferred, or a contract has been entered into for the sale or transfer of land in violation of these regulations, the land shall be governed by the subdivision regulations both prior to and after the platting of the land by the owner of record as if a plat had been filed in accordance with the provisions of these regulations. Plats filed pursuant to these regulations may be filed by the last transferee in the chain of title including holders of deeds, which may otherwise be void under KRS 100.277(2).

4. Penalties (KRS 100.991)

A. Any person or entity who violates any of the provisions of KRS 100.273 to 100.292 or any of these subdivision regulations adopted pursuant thereto for which no other penalty is provided shall, upon conviction, be fined not less than ten dollars ($10) but not more than five hundred dollars ($500) for each conviction. Each day of violation shall constitute a separate violation.

B. Any person, owner or agent who violates these regulations shall, upon conviction, be fined not less than one hundred dollars ($100) nor more than five hundred dollars ($500) for each lot or parcel which was subject of sale or transfer, or a contract for sale or transfer.

C. The Planning Commission or the City may appoint enforcement officers who shall have authority to issue citations for violations of these regulations, which the officer has observed, but shall not have powers of peace officers to make arrests or carry deadly weapons. The defendant shall appear within a designated time pursuant to the citation. The procedure for citations issued by an enforcement officer shall be as provided in the City of Franklin Code of Ordinances relating to issuances of notices of violations and citations for code enforcement.

APPENDICES

Subdivision Regulations
Franklin, Kentucky

APPENDIX A

DEFINITIONS AND ABBREVIATIONS

Subdivision Regulations
Franklin, Kentucky

APPENDIX A: DEFINITIONS AND ABBREVIATIONS

Rules for Construction of Language.
In the construction of these subdivision regulations, the rules contained in this Appendix shall be observed and applied, except when the context clearly indicates otherwise:

1. The particular shall control the general.

2. The word "shall" is always mandatory.

3. The word "may" is permissive.

4. The word "lot" shall include the words "piece" or "parcel".

5. The word "structure" includes all other structures, or parts thereof, of every kind regardless of similarity to buildings; and the phrase "used for" shall include the phrases "arranged for", "designed for", "intended for", "maintained for", and "occupied for".

6. In the case of any difference of meaning or implication between the text of these Subdivision Regulations and any caption, illustration or table the text shall control.

7. Words used in the present tense shall include the future, and words used in the singular include the plural, and the plural the singular, unless the context clearly indicates the contrary.

8. Unless the context clearly indicates to the contrary, conjunctions shall be interpreted as follows:
   a. "And" indicates that all connected items, conditions, provisions or events shall apply.
   b. "Or" indicates that one or more of the connected items, conditions, provisions, or events shall apply.
   c. "Either or" indicates that the connected items, conditions, provisions or events shall apply single but not in combination.

9. All public officials, bodies, and agencies to which reference is made are those of Franklin, Kentucky.

10. The title "Planning Administrator" shall refer to the City Planning Administrator or an authorized City representative.

11. The title "City Engineer" shall refer to the City Engineer or an authorized City representative.

Definitions
Except where definitions are specifically included in various sections of these Subdivision Regulations, words in the text or tables shall be interpreted in accordance with the provisions set forth in this section. Where words have not been defined, the standard dictionary definition shall prevail.

AASHTO - Abbreviation for "American Association of State Highway and Transportation Officials"

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

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

Architect - See “registered architect.”

Arterial Road - A road intended to move traffic to and from major industrial areas or a route for traffic between communities or large areas. Arterial streets and highways are those which will be used primarily for high vehicular speeds or heavy volumes of traffic with an ADT over 3000.

Basement - That portion of a building having its floor subgrade (below ground level) on all sides.

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

Bond - A letter of credit or insurance bond in a form specified by Article 5 of these regulations.

Building - Any structure built for the support, shelter, or enclosure of persons, animals, chattels, or movable property of any kind. The term includes any permanent structure including mobile homes.

Building Official - The person designated by the City to enforce building codes. (Same as Building Commissioner.)

Capital Improvements Program - A proposed schedule of all future projects, listed in order of construction priority, together with cost estimates and the anticipated means of financing each project.

CMP - Abbreviation for “Corrugated Metal Pipe.”

Collector Road - A road (street) intended to move traffic from local roads to arterial routes. A collector road serves aneighborhood or large subdivision. Minor collector streets are those which will carry intermediate volumes of traffic with an ADT from 501 to 1000. Major collector streets are those which will carry intermediate volumes of traffic with an ADT from 1001 to 3000.

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

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

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

Comprehensive Plan – Any current adopted Comprehensive Plan for Franklin, Kentucky.

Concept Plan- A general plan layout used to review the possible development /subdividing of property.

Condominium - A form of ownership of less than the whole of a building or system of buildings under a statute which provides the mechanics and facilities for formal filing and recordation of divided interests in real property, where the division is vertical as well as horizontal.

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

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

Vertical Condominium Subdivision - A condominium subdivision of a multi-story building in which one or more units do not occupy ground area.

Condominium Unit - A dwelling unit conveyed by separate title and located within a condominium.

Consolidated Plat - A drawing showing the combination of any number of existing lots or record into an equal or lesser number of lots, as described in their regulations.

Construction Plan - The maps or drawings accompanying a subdivision plat and showing the specific location and design of improvements to be installed in the subdivision in accordance with the requirements of the Planning Commission. Construction plans are also defined herein to specifically include documents required by these Subdivision Regulations and the Franklin Stormwater Management Ordinance, to include drainage calculations, Erosion Prevention and Sediment Control Plans, and Permanent Stormwater Management Plans. Construction Plans are required for all major subdivisions in the City of Franklin Planning Region.

City - The City of Franklin, Kentucky.

City Attorney - The attorney holding the position of attorney for the City or such licensed attorney designated by the City attorney to furnish legal assistance for the administration of these regulations.

City Commission - The chief legislative body for Franklin, Kentucky.

Critical Areas or Lots – Lots or areas designated as critical based on soil conditions, susceptibility to flood inundation, karst features, degree of slope or other lot features to address concerns related to the feasibility of construction as determined by the City Engineer.

Cul-de-Sac - A minor street having only one outlet and having an appropriate terminal for the safe and convenient reversal of traffic movement.

Developer - The owner of land proposed to be subdivided or his authorized representative. Consent shall be required from the legal owner of the premises.

DOW – Abbreviation for Kentucky "Division of Water."

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

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

Engineer - See "registered engineer" or "City engineer", as appropriate depending upon the context.

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

Escrow - A deposit of cash with the City or other entity in lieu of an amount or improvement required.

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

FEMA - Abbreviation for "Federal Emergency Management Agency."

FHWA - Abbreviation for "Federal Highway Administration."

Final Plat - See "final subdivision plat."

Final Subdivision Plat - The final map or drawing and accompanying materials, described in these regulations, on which the subdivider's plan of the subdivision is presented to the Planning Commission for approval and which, if approved, may be submitted to the Simpson County Clerk for recording.

FIRM - Abbreviation for "Flood Insurance Rate Map."

Flood - A temporary rise in stream level that results in inundation of areas not ordinarily covered by water. See "one-hundred-year flood.

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

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

Flood Hazard Boundary Map - An official map, issued by the federal insurance administrator, on which the boundaries of the floodplain areas having special flood hazards have been delineated.

Floodplain - A land area adjoining a river, stream, watercourse, bay, or lake which is likely to be flooded. See "one-hundred-year flood," "floodway," and "floodway fringe." The floodplain is composed of a floodway and floodway fringe.

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

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

Flood-prone Area - Same as "flood hazard area."

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

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

Floodway Encroachment Limits - The lines marking the limits of floodways on official federal, state, and local floodplain maps, including such maps as are included in the appendix of these regulations.

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

Frontage - That side of a lot abutting on a street or way and ordinarily regarded as the front of the lot, but it shall not be considered as the ordinary side of a corner lot.

Frontage Street - Any street to be constructed by the developer or any existing street in which development

shall take place on both sides.

Future Land Use Plan - The general development plan for Franklin, Kentucky. This plan meets the intent of Kentucky Code Annotated.

General Common Elements - See “common elements.”

GIS - Abbreviation for “Geographic Information Systems.”

Grade - The slope of a road or other public way, specified in percentage terms.

Health Authority – Refers to the Simpson County Health Department.

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

Homeowner’s Association – A homeowner's association (HOA) is an organization in a subdivision, planned community, or condominium building that makes and enforces rules for the properties and its residents. Those who purchase property within an HOA's jurisdiction automatically become members and are required to pay dues, known as HOA fees. Some associations can be very restrictive about what members can do with their properties. HOAs are completely responsible for perpetuity for the maintenance of all common areas within a subdivision including monument signs, detention basins, drainage swales, streams, landscape areas, required buffers, fences, bioretention features, common buildings, and all other common features and appurtenances.

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Horizontal Condominium Subdivision - See “condominium subdivision.”

Horizontal Property Act - The Kentucky Horizontal Property Law as codified in Kentucky Code Annotated.

Hundred-Year Flood - See “one-hundred-year flood.”

Improvements - See “lot improvement” or “public improvement.”

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

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

ITE - Abbreviation for “Institute of Transportation Engineers.”

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

KYTC - Abbreviation for “Kentucky Transportation Cabinet.”

Land Surveyor - See "registered land surveyor."

Lane- A road which is not classified as an arterial or collector road. Sometimes referred to as local roads or streets. Minor streets are those which are used primarily for access to the abutting properties, and which will carry limited volumes of traffic with an ADT greater than 200 and less than 500.
See “arterial road and “collector road.”

LOS - Abbreviation for “Level of Service”. A measure used by traffic engineers to analyze highways by categorizing traffic flow with corresponding safe driving conditions, typically shown by letter designation A through F.

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

Lot Corner - A lot situated at the intersection of two (2) streets, the interior angle of such intersection not exceeding 75 degrees.

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

Major Road - A road which is classified as a collector or arterial road according to these regulations or by the Kentucky Transportation Cabinet for the Planning Region. See “arterial road,” and “collector road”.

Major Subdivision - All subdivisions not classified as minor subdivisions, including but not limited to subdivisions, of three (3) or more lots or subdivisions of any size requiring any new or improved road, the extension of City limits or City facilities, or the creation of any public improvements or containing any flood-prone area.

Marginal Access Road - minor road or street which are parallel to and adjacent to arterial streets and highways, and which reduce the number of access points to the arterial street for the purpose of increased traffic safety.

Minor Road - See “minor street.”

Minor Street - A road which is not classified as an arterial or collector road. Sometimes referred to as local roads or streets. Minor streets are those which are used primarily for access to the abutting properties and which will carry limited volumes of traffic with an ADT less than 500. See “place”, “lane”, “arterial road” and “collector road.”

Minor Subdivision - Any subdivision containing not more than two (2) lots fronting on an existing street; not involving any new or improved road, the extension of city facilities, or the creation of any public improvements and not containing any flood-prone area, not adversely affecting the remainder of the parcel or adjoining property, not requiring any variance, and not in conflict with any provision of an adopted Future Land Use Plan, Major Thoroughfare Plan, Zoning Regulations, or these regulations.

National Flood Insurance Program - A program established by the U.S. government in the National Flood Insurance Act of 1968 and expanded in the Flood Disaster Protection Act of 1973 in order to provide flood insurance at rates made affordable through a federal subsidy in local political jurisdictions which adopt and enforce flood plain management programs meeting the requirements of the National Flood Insurance Program regulations.

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

One-Hundred-Year Flood - A flood having a one-percent annual chance of occurring or being exceeded in any given year. The base flood as it is commonly referred, is the national standard used by the NFIP for the purpose of requiring flood insurance and regulating new developments. It is based on statistical analysis of stream flow records available for the watershed and analysis of rainfall and runoff characteristics in the general region of the watershed.

Owner - Any person, group of persons, firm or firms, corporation or corporations, or any other legal entity

having legal title to or sufficient proprietary interest in the real property.

Ownership, Same - See "same ownership."

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

Place – A place is a short street, a cul-de-sac, or court which are used primarily for access to the abutting properties and which will carry limited volumes of traffic with a projected ADT of 200 or less.

Planning Commission - The Franklin-Simpson Planning and Zoning Commission created in accordance with the Kentucky Code Annotated.

Planning Region - All land, lying within the boundaries of the City of Franklin Planning Region as established by the Kentucky State Planning Office.

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

Premises - A tract of land together with any buildings or structures which may be thereon. Public Improvement - Any drainage ditch, roadway, parkway, sidewalk, pedestrian way, tree, lawn, off-streetparking area, lot improvement, or other facility for which the City or City may ultimately assume the responsibility for maintenance and operation, or which may affect an improvement for City or City responsibility is established.

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

RCP - Abbreviation for "Reinforced Concrete Pipe".

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

Recording Information - The date, location (plat book, record book, etc.) and any other pertinent information regarding the recording of a document.

Register – Simpson County Clerk or office thereof.

Registered Architect - An architect certified and registered by the State Board of Architectural and Engineer Examiners pursuant to the Kentucky Code Annotated, to practice in Kentucky; or a landscape architect certified and licensed by the State Board of Landscape Architects pursuant to the Kentucky Code Annotated,to practice in Kentucky.

Registered Engineer - An engineer certified and registered by the State Board of Architectural and Engineer Examiners pursuant to the Kentucky Code Annotated, to practice in Kentucky.

Registered Land Surveyor - A land surveyor certified and registered by the State Board of Land Survey Examiners pursuant to the Kentucky Code Annotated, to practice in Kentucky.

Regulatory Flood - The one hundred (100) year flood. See "one-hundred-year flood."

Regulatory Flood Elevation - The water-surface elevation of the regulatory flood.

Regulatory Flood Protection Elevation - The elevation of the regulatory flood plus one (1) foot of freeboard to provide a safety factor.

Resubdivision - A change in a map of any approved or recorded subdivision plat if such change affects any street layout on such map or any area reserved thereon for public use, or any lot line, or if it affects any map or plan legally recorded prior to the adoption of any regulations controlling subdivisions.

Right-of-Way (ROW) - A strip of land occupied or intended to be occupied by a street, crosswalk, railroad, road, electric transmission lines, oil or gas pipeline, water main, sanitary or storm sewer line, or far another special use. The usage of the term "right-of-way," for land platting purposes, shall mean that every right of way hereafter established and shown on a final plat is to be separate and distinct from the lots or parcels adjoining such right-of-way and not included within the dimensions or areas of such lots or parcels.

Road, Classification - For the purpose of providing for the development of the streets, highways, roads, and rights-of-way in the Planning Region and for their future improvement, reconstruction, realignment, and necessary widening, including provision for curbs and sidewalks, each existing street, highway, road, and right-of-way and those located on approved and filed plats have been classified herein. The classification of each street, highway, road, and right-of-way is based upon its location in the respective zoning districts of the City, its present and estimated future traffic volume, and its relative importance and function as specified in any Comprehensive Plan.

Road, Dead-end - A road or a portion of a road with only one vehicular- traffic outlet.

Road Right-of-way Width - The distance between property lines measured at right angles to the center line of the road.

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

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

Septic Tank Effluent Pump (STEP) System - An alternative sanitary sewer disposal system.

Setback - The distance between a building and the street line nearest thereto.

Sketch Plat - A sketch preparatory to the preparation of the Preliminary Plat (or Final Subdivision Plat, in the case of Minor Subdivisions) to enable the subdivider to save time and expense in reaching general agreement with the Planning Commission as to the form of the plat and the objectives of these regulations. See "Concept Plan".

Special Flood Hazard Area - See "flood hazard area."

Special Flood Hazard Map - The official map designated by the federal insurance administrator to identify floodplain areas having special flood hazards.

Start of Construction – The beginning of the alteration of a site for permanent development. Start of construction typically begins with the grading process to alter the site toward its permanent design.

Stormwater Management Ordinance - The currently adopted Stormwater Management Ordinance for the City

of Franklin, Kentucky.

Street - means a way for vehicular traffic, whether designated as a street, highway, thoroughfare, parkway, throughway, road, avenue, boulevard, lane, place or otherwise designated. See “road, classification.”

Structure - Anything constructed above or below ground.

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

Subdivision - The division of a tract or parcel of land into two (2) or more lots, sites or other divisions for the purpose, whether immediate or future, of sale or building development and includes re-subdivision and, when appropriate to the context, relates to the process of subdividing or to the land or area subdivided, provided, however, that 'subdivision' does not include a division of any tract or parcel of land into two (2) or more tracts or parcels when such parts or parcels are larger than five (5) acres in size for the purpose of agriculture. “The term “subdivision” includes the process of subdivision or division of residential or non-residential land, whether by deed, metes andbounds description, map, plat, or other recorded instrument. Additionally, any division or re-division of land into parcels occurring within twelve (12) months following a division of the same land shall be deemed a subdivision within the meaning of this ordinance.

Subdivision Agent - Any person who represents or acts for or on behalf of a subdivider or developer in selling, leasing, or developing or offering to sell, lease, or develop any interest, lot, another person consists solely of rendering legal service.

Substantial Completion - The point in time when the Developer has completed all required Public and Private Improvements to the project site and all required Public Improvements off-site relative to the Project in accordance with the approved construction documents and Planning Commission conditions, and such improvements have been inspected, tested and approved by the City Engineer or his designee.

Substantial, Improvement - Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the actual cash value of the structure either before the improvement in begun or, if the structure has been damaged and is being restored, before the damage occurred. Substantial improvement begins when the first alteration of any structural part of the building commences.

Temporary Improvement - Any improvement built and maintained by a subdivider during construction of the subdivision and prior to release of the performance bond, the cash deposited in escrow, or a letter of credit designed to ensure completion of required improvements.

Thoroughfare Plan (Major) – An adopted plan for roadways in need of expansion and adopted by the City. The plan is to serve as notice to the public for developing land adjacent to these identified roads.

Vertical Condominium Subdivision - See “condominium subdivision.”

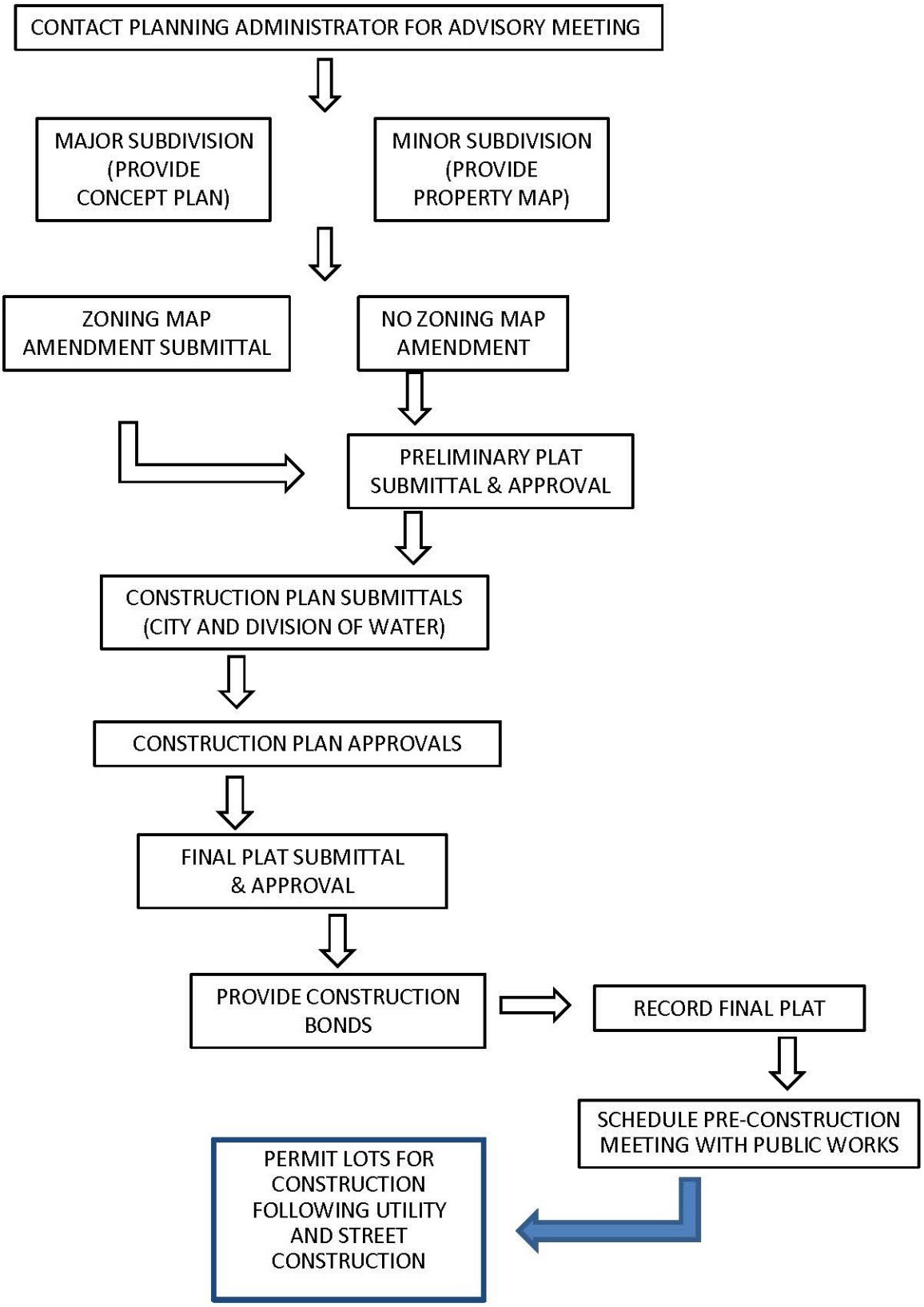
Water Surface Elevation - The heights in relation to mean sea level expected to reach by floods of various magnitudes and frequencies at pertinent points in the floodplain. Also, the level of natural flows or collections of water which may be expected to be found above or below surface.

APPENDIX B

SUBDIVISION SUBMISSION
&
APPROVAL FLOWCHART

Subdivision Regulations
Franklin, Kentucky

SUBDIVISION SUBMISSION AND APPROVAL FLOWCHART



This Flowchart is to be utilized with the Public Works Development Checklist

APPENDIX C

PUBLIC WORKS

DEVELOPMENT CHECKLIST

Subdivision Regulations
Franklin, Kentucky

City of Franklin
Public Works Development Checklist

Development Name: _____

Location: _____

Developer: _____ Phone: _____

Contractor: _____ Phone: _____

City Representative: _____

Steps	Action	Completion Date:	Initials
1	Application for water/sewer/stormwater availability received.		
2	Application for Pre-treatment discharge permit.		
3	Letter of Availability written by City.		
4	Number of availabilities issued. ☐		
5	Preliminary plat received. (3 copies of 11 x 17 size)		
6	Preliminary Approval of Development Plans by P & Z		
7	Plan review fee paid. $500 Water $500 Sewer $500 SW $500 Dep		
8	3 sets of plans received by City. (Include electronic copy)		
9	Engineering Report received (to include stormwater calcs.)		
10	Approval letter from City - Approval stamp on plans		
11	Approval letter from KDOW received.		
12	Easements obtained with copies given to City.		
13	Written construction estimate received. (fair market value)		
14	Inspection fees paid to City.		
15	Water contract signed (with surety bond)		
16	Sewer contract signed (with surety bond)		
17	Inspection and Maintenance Agreement signed		
18	Shop drawings received with details of all apurtenances.		
19	Tap fees paid.		
20	Business License obtained.		
21	Pre-Construction Conference held.		
22	Recorded plat received with easements.		
23	Final Approval by planning commission		
24	Construction allowed to start.		
25	Meters distributed and paid for.		
	# Issued: ☐		
26	Pre-Tapping inspection		
27	Contractor allowed to tap line.		
28	All utilities installed.		
29	Review of discharge permit application.		
30	Issue Pretreatment discharge permit if necessary.		
31	As-builts received on paper and electronically.		
32	Final Inspection		
33	Deficiencies corrected.		
34	Letter of Approval from City.		
35	$500 deposit returned to contractor.		
36	Annual Inspection. (1 Year Warranty)		
37	Letter of acceptance by City.		

* Steps 1-5 to be completed prior to Preliminary Planning and Zoning Approval

** Steps 1-22 to be completed prior to beginning construction

APPENDIX D

ROADWAY & DRAINAGE

TECHNICAL STANDARDS

Subdivision Regulations
Franklin, Kentucky

TABLE OF CONTENTS

4. Road Construction

5. Pavement Design

6. Structures

7. Traffic Signs and Markings

8. Drainage Design

STANDARD DETAILS

1. GENERAL PROVISIONS AND REQUIREMENTS

1.1 - Purpose and Scope

This document describes design guidelines for designing roadways and drainage improvements and facilities within the jurisdiction of the City of Franklin, Kentucky. In the event of a conflict between the general text of the City Subdivision Regulations and this Appendix, those documents,rather than this Appendix, shall govern.

1.2 - Jurisdiction / Regulations

These rules and regulations governing the construction of roads, which are to be included within the road system of the City of Franklin, Kentucky, as well as drainage improvements and facilities, shall apply to all areas within the jurisdiction of the City.

1.3 - Specifications and Resources

The following publications may be referred to in these specifications or listed for convenience for future reference.

"A Policy on Geometric Design of Highways and Roads", American Association of State Highway and Transportation Officials; AASHTO.

"Guidelines for Urban Major Road Design, a Recommended Practice", Institute of Transportation Engineers; ITE.

"Manual on Uniform Traffic Control Devices for Roads and Highways", (MUTCD) U.S. Department of Transportation, Federal Highway Administration; FHWA.

The Kentucky Transportation Cabinet; KYTC, "Standard Specifications Book", latest edition, technical specifications only, shall apply and be adhered to unless superseded by these specifications.

In the event of a conflict between this document and the referenced specifications aforementioned, the specifications contained in this document shall govern.

1.4 - Plan Review Procedure / Performance Agreements and Fees

Concurrent with Submission of the Preliminary Plat, and/or Site Plan, the Developer or the Developer's Engineer shall submit construction drawings for approval. The submittal shall include documents and drawings to include all aspects of the roadway, grading and drainage, including documentation or supporting engineering calculations. The construction drawings and drainage calculations shall bear the stamp of a Registered Kentucky Professional Engineer. Approved plans shall be required prior to the start of any work on the project.

Other submittals for approval which are necessary and to be done by the Developer might include but are not limited to: the Planning Commission; the City Public Works Director, the City Commission, the Kentucky Transportation Cabinet (KYTC);the Kentucky Department for Environmental Protection.

For approval by the City, a letter of transmittal along with the construction drawings and specifications (Plans), applicable checklists and payment for the Plan Review Fee shall be submitted to the City Planning Office. The Plans submittal shall meet the requirements contained in the City Subdivision Regulations. A set of approved Plans shall be at the construction site at all times. Plans will not be deemed approved until approved by the City Engineer.

1.5 – Permits and Fees

Prior to beginning any construction, the Developer and/or Contractor, shall obtain all necessary permits as required by law. Such permits include, but are not limited to, those required by the State of Kentucky, the Planning Commission, City Public Works, other City agencies and utility companies.

The Developer shall obtain a Notice of Coverage (NOC) from the Kentucky Department for Environmental Protection prior to beginning any construction activities.

Once the grading and drainage plans are approved, the Developer and/or Contractor must complete the following steps prior to starting clearing and grading activities.

1) Submit a Land Disturbance Permit Application along with any other forms required by City, State and Federal Stormwater regulations.
2) Pay other applicable fees to the City. Construction plans will not be released until the fees are paid by the Developer.
3) Install all required erosion control measures and tree protection fencing on the site as shown on the approved plans.
4) Stake the centerline of the proposed roads.
5) A copy of the approved Grading and Drainage plans and approved Utility Plans **MUST** be kept on site at all times while construction is taking place.

1.6 - Notification of Construction

Before commencing any road construction operations, a twenty-four (24) hour notice must be given to the City Public Works Department. This advance notice is required for all road construction projects to ensure proper inspection staff scheduling with the City. Demolition permits, if required for the project, shall be obtained from the City Building Codes Department. Any work performed, including placement of fill, prior to permit and proper notification to the City will be removed and replaced in accordance with the regulations.

1.7 - Quality Control Testing & Construction Surveying

1.7.1 Construction Surveying

To facilitate the field observations, reviews and quality control testing to be performed by the City or its authorized representatives. The Developer and the Developer's contractor shall provide construction surveying and staking at no cost to the City. This shall include initial surveying and staking re- surveying or re-staking as well. The minimum surveying tasks shall include but are not limited to:

(a) Centerline of the proposed roadways for clearing and grubbing.
(b) Centerline of the proposed roadways with proposed cut and/or fill depths to subgrade.
(c) Cut slope and fill slope limits if needed by the City.
(d) Verifying the proposed subgrade for roadways are constructed to the design elevations. Provide with proposed cut and/or fill depths to subgrade.
(e) Locations and elevations of catch basins, headwalls, culverts, ditches, basins, and other Stormwater facilities.

(f) Cut and fill areas and mass grading areas that are outside the road rights-of–way,
(g) Confirm Stormwater detention or retention basins are graded & constructed per the approved plans. This includes outlet control structures or facilities.
(h) Off-set staking of survey points to facilitate on-site reviews.
(i) Benchmarks as required in plans.

1.7.2 Primary Testing

The primary methods of testing shall be by proof rolling and on-site field observations by the City or its authorized representative. The Developer and the Developer's contractor shall coordinate with the City in order for the proof rolling of the various stages of roadway construction to be observed by the City or its authorized representative. Proof rolling is to be accomplished for areas to include but not limited to:

(a) all subgrade
(b) fills over eighteen (18) inches thick, proof roll everyone-foot thick loose fill layer, as fill is placed or in accordance with geotechnical engineering recommendations
(c) any areas that are undercut
(d) any areas that are re-filled and/or backfilled

If the City or authorized representative are not present during the proof rolling for a stage of construction, then the fill or work is subject to being removed and replaced at the Developer's expense. The Developer will be at risk for executing work beyond fill and/or subgrade that has not been observed by the City or authorized representative.

The Developer shall provide and pay for the necessary labor, equipment, materials and supervision required to support field observations and testing by the City at no cost to the City.

1.7.3 Secondary Testing

The City can require secondary testing to help determine if the roads are being constructed to the satisfaction of the City. Secondary testing can include but is not limited to the following:

Construction materials, including soil fills, rock fills, aggregate base stone, asphalt, concrete, and roadway sub-grades shall be fully tested in accordance with the designations and requirements within the referenced "KYTC Standard Specifications" sections. Unless otherwise noted within the "KYTC-Standard Specifications" section, the type and number of tests called for by the referenced standards shall be performed. The City can likewise require geotechnical review by a Kentucky registered professional engineer to be performed to provide verification and information to assist in determining if the road construction meets required specifications.

Testing shall be done by an independent testing laboratory whose qualifications are approved by the City. The Developer shall provide and pay for the cost of all testing and re-testing. Testing results will be submitted to and approved by the City. The City reserves the right to require industry standard certifications of testing and inspections by the testing laboratory, mills, shops and factories. Such certifications required shall be submitted in duplicate.

The Developer shall provide and pay for the necessary labor and supervision required to support field testing by the independent testing firm and inspections by the City at no cost to the City. Test reports of field testing if applicable shall be submitted directly to the City. Defects disclosed by tests shall be corrected by the Developer at no cost to the City. The Developer is required to have the design engineer or a certified quality control inspector present during all phases of construction.

1.8 - Inspection

All projects shall be subject to inspection during and after completion of construction by an authorized representative(s) of the City. Presence or absence of an inspector during construction does not relieve

the Developer and/or Contractor from adherence to approved plans and material contained in these specifications. Materials and/or workmanship found not meeting requirements of approved plans and specifications shall be immediately brought into conformity with said plans and specifications.

An authorized representative of the City shall make a final inspection of the project after completion todetermine acceptability of the work and for release of Performance Securities if required.

The cost for inspection by the City or its authorized representatives during construction is covered by the fees established by the City. Additional inspection fees will be required when an inspection by the City fails and requires subsequent re-inspections. The Inspection Fee shall be paid to the City before release of the approved construction plans.

Drainage facilities including, but not limited to, culverts, detention basins and ditches, as well as the roadway sub-grade, base stone and binder and surface course shall be inspected, tested and given approval as required by the City. Prior to delivery of pipe, structures and roadway materials to the site materials shop drawings or lab reports should be submitted to the City for confirmation of suitability with required regulations. Final construction inspection for approval and acceptance of roads and drainage systems will not be granted until all work has been completed in accordance with the approved plans.

1.9 - Acceptance of Facilities

After construction has been completed, a final inspection will take place by the City. Acceptance will be issued once all Performance Agreements and requirements have been met and construction meets the extents considered satisfactory under these specifications and the City Subdivision Regulations.The Developer shall meet all requirements of applicable Performance Agreements. At the appropriate time (following the one-year warranty period and warranty inspection by the City), the City Public Works Director will make a recommendation to the City Commission; the City Commission is the authorized body that will accept roads into the City road system.

1.10 - Variances

Variances from the standards in this manual will be considered by the City Engineer on a case-by-case basis. If the Developer, Contractor, or utility responsible to the City for public improvements desires to design and construct such improvements in variance to these standards, such variance(s) should be identified in a written attachment to the initial submittal of plans. The variance request(s) shall consist of:

- Identification of the standard provision to be waived or varied.
- Identification of the alternative design or construction standards to be adhered to.
- A justification of the variance request, including impact on capital and maintenance requirements and cost.
- Request shall be prepared and sealed by a professional civil engineer licensed to practice in the State of Kentucky.

1.11 - Revisions to these Specifications

Revisions to these specifications will be adopted by the City Commission.

2. PLAN STANDARDS

2.1 - General

In order to provide consistency and maintain accuracies, the following criteria are to be utilized for the construction plans.

The initial construction plan submittal shall include two (2) full scale plan sets (at the City's discretion), along with an electronic submission submitted in Portable Document Format (PDF) format, along with any calculations, checklists, reports or supporting documentation for how these plans comply with the regulations

The final construction plan submittal shall include four (4) full scale plan sets. After approval of the plans,two (2) sets will be retained by the City with the remaining two (2) sets (or more if more are provided) returned to the Developer or the Developer's Engineer. A set of approved Plans shall be at the construction site at all times. Plans will not be deemed approved until approved by the City Engineer. Submitted with the final set shall be a CD containing all CAD files associated with the plan set. CAD files should be digital format with shape files and AutoCAD compatible. Also, PDFs of the final plan set are required in addition dwg files.

2.2 – Survey

Survey procedures require that all surveys shall be tied to the State Plane Coordinate System using the Kentucky State Plain Coordinate System (KYSPCS). All surveyed coordinate values will be based on the North American Datum 1983 (NAD/83) coordinates and appropriate notes indicatingsuch shall appear on the topography plot.

All design computations shall be based on these adjusted coordinate values. This will ensure that all computed points on the project will have coordinate values tied to the State Plane System. Assumed coordinates will not be used.

2.3 - Preparation

The following sub-sections contain specific information on sheet preparation.

2.3.1 - Dimensions and Directions

All units of measurement shall be in English standard units of feet. Distances shown on the plans shall be to the nearest .01 foot (35 ft., 35.0 ft., and 35.00 ft., are acceptable; 35.001 ft. is not acceptable). Bearings will be shown to the nearest second.

2.3.2 - Sheet Size

Designs are to be provided on 24" x 36" sheets. Each sheet shall have a left-hand margin of one and one-half (1 ½) inch for binding. Match lines may be required on sheets for clarity.

2.3.3 - Drafting Specifications

Font Size: Text on plans shall be legible, neat and orderly presented.

Title Block: Each submitted drawing shall have a border and title block in the right-hand side or lower right-hand corner of the drawing. The title block shall include a space for revisions and dates.

All submitted final plan sets and calculations shall be signed and sealed by a Kentucky registered professional engineer. Each sheet within the plan set shall be signed and sealed with the exception of any standard drawing that might be available from KYTC and the City's Standards Details.

2.4 - Construction Plans

Plans should be one hundred (100) percent complete when submitted for initial review. The project must meet requirements as they relate to appropriate public road approaches, required taper distances for pavement transitions, grades, vertical stopping sight distance, and intersection sight distance.

NOTE: Additional items may be requested by the City, as each project can present unique development and design issues that will need to be specifically addressed.

As a general guideline, the supporting calculations should include any engineering information that is pertinent to the project. These might include, but are not limited to the following:

- Drainage calculations including culvert and bridge analysis
- Water quality and detention design reports
- Buffer calculations per the Stormwater regulations
- Drainage areas, runoff values, energy dissipaters
- Intersection sight distance calculations

The designer is encouraged to add notes on the plans explaining special situations or items which are not readily apparent and that would influence the proposed design. The following sheets and information will be reviewed for quality assurance at this submission. The information is intended to be a guideline and not limited to the following. The City may request additional information.

Title Sheet – Information on the title sheet should include the following:

- Project numbers
- Project location map including north arrow and scale
- Description of project work type
- Signature block
- KYDOW Permit Numbers
- Utility providers list with name of contact, address, phone number(s).
- Sheet index

Standard Details – These should only show basic configuration and design features. This will typically include the following:

- Lane and shoulder widths
- Construction centerline
- Cross slopes
- Curbs
- Side slopes
- Shoulder configurations if warranted
- Retaining walls, culverts, and bridges if warranted
- Ditches
- Sidewalk locations and widths if proposed
- Typical sections and paving schedule

Overall Plan Sheet – Include an Overall Plan sheet for projects to show an overall view of the project at a scale that is no smaller than one (1) inch = two hundred (200) ft.

Plan and Profile Sheets - Elevations and grades of ditches are to be shown so that accurate right-of-way requirements can be determined. The plan and profile sheets typically shall include the following:

- Horizontal scale: 1 inch = 50 ft.
- Vertical scale: 1 inch = 5 ft. or 1 inch = 10 ft.
- Horizontal alignment (e.g., horizontal curve data, PC, PI, PT, bearings)
- Vertical alignment
- Alignment controlling features (e.g., high-water levels, existing crossroads and bridges, regulated drains, drainage structures, railroads, traffic maintenance considerations, cemeteries, historical buildings, parks, etc.)
- Drainage details, e.g., ditches, culverts, etc.
- Project limits
- Drainage features (e.g., pipe structures, ditch grades, inlets for storm-sewer trunk line designs, etc.)
- Public road approach and drive locations
- Construction limits
- Proposed right-of-way and construction easements
- Approximate roadside barrier locations
- The plan and profile sheets should reflect correct structure notations

Grading & Drainage Sheets – The grading & drainage sheets typically shall include the following:

- Existing contours; 2 ft. contour interval maximum with spot reference.
- Proposed contours; 2ft. contour interval maximum with spot reference.
- Supplemental spot elevations as needed to show proposed grading.
- Drainage and EPSC, sodding, riprap and sodded ditch locations.
- Items to be removed or demolition items are noted.
- Permanent and temporary erosion prevention and sediment control (EPSC) measures.
- Notes for grading, drainage and EPSC.
- The grading plan shall show the grading within the ROW, adjacent to the ROW and all lot areas tobe graded.
- Locate all streams and KYDOW stream buffers.
- Show the location, dimensions, and elevation of any part of the subdivision within a flood prone area; existing or proposed structures of building sites, fill, storage of materials and flood proofing measures, as specified in these regulations; and the relationship of the above to the location of the stream channel, floodway, floodway fringe, the regulatory flood elevation, and the regulatory flood protection elevation;
- The water elevations of adjoining lakes or streams and the approximate high and low-water elevations of such lakes and streams shall be shown. All elevations shall be referred to the U.S.G.S. datum plane.

Drainage Structure & Pipe Data Table – The information to be included in the structure data table is as follows:

- Location
- Size
- Type
- Elevations and grades
- Pipe lengths and slope
- Type of headwall

Cross Sections – The City may require cross sections to depict or provide more detailed information.

Detail Sheets – The proposed layouts typically shall be included as follows:

- Turning movements and turn lanes
- Pavement markings
- Signage, including sign structures
- Retaining walls
- Drainage structures
- Super elevation transition diagrams
- Plans for temporary erosion control, traffic maintenance details, and traffic design elements (e.g., intersections, signals, signing and lighting).

- Signals
- Lighting
- Amenities

Traffic Maintenance Details – The proposed traffic maintenance scheme and phasing is to be outlined when required by the Planning Commission.

Construction Traffic Details – The proposed construction traffic routing, scheme and phasing is to be outlined to include the location of proposed temporary construction roads when required by the Planning Commission.

2.5 – Submission

The following represents the minimum required for construction drawing submission to the City Engineer for review. When submitting the documents for review, provide the following:

- Letter of Transmittal – this will include the date of submittal, contact information of the consultants and developer (names, addresses, phone numbers, email address), project information, and a listing of submitted items.
- Indicate the number of sets of construction plans submitted. Plans (full-size plan sheets) and documents are to be securely bound. The plans shall be sealed and dated by a KY registered professional engineer.
- Indicate the number sets of supporting engineering drainage calculations and other calculations sealed and dated by a Kentucky registered professional engineer.

NOTE: Additional items may be requested by the Planning Commission or the Public Works Director, as each project can present unique development and design issues thatwill need to be specifically addressed.

2.6 - Revision of Plans

Should, prior to or during construction, necessary changes be needed that would, in the opinion of the City Engineer or Public Works Director, constitute significant revision of the plans alreadyapproved by the City, said plans shall be revised with said changes shown and resubmitted along with a letter stating why such changes are believed necessary. Changes deemed to be minor in nature by the Planning Director, City Engineer or Public Works Director may be made during construction with the changes noted for inclusion in the "as-built" drawings to be submitted to the City prior to finalacceptance.

The City shall have the right to re-review the portion of the set of Plans that are affected by the proposed revision.

3. ROAD DESIGN

3.1 Standards for Design

The purpose of this chapter is to present the criteria and guidelines for the design of subdivision and development roads and other related elements in the road right-of-way. It is to be used by Developers and their engineers in the design of subdivision and development roads for which approval by the Planning Commission is required.

3.1.1 General

All design drawings and support data submitted to the City for approval must be sealed and signed by a registered Professional Engineer, licensed to practice in the State of Kentucky.

The design criteria, as presented, are intended to aid in preparation of plans and specifications and include minimum standards where applicable. Design of roads are to be designed based upon the KY Highway Design Manual (latest edition) unless otherwise noted in these specifications. For items not addressed in the KYTC Highway Design Manual, the AASHTO "A Policy on Geometric Design of Highways and Roads" (hereinafter referred to as the "Green Book", latest edition) should be consulted for guidance.
Where conflicts exist or interpretations are required, the City Engineer shall make the final determination.

3.1.2 Location and Layout of New Roads

The location and layout of new roads shall be compatible with existing streets, Subdivision Regulations and Zoning Regulations. Roads not identified in the Major Thoroughfare Planshall meet the needs of the specific development and satisfy all other specific requirements of this appendix section and these Subdivision Regulations in general.

The road layout for all subdivisions should be designed to ensure connectivity, enhance general circulation and to provide secondary points for emergency access. They shall also provide safe, efficient, and convenient access within and between developments. Certain roads should be extended to property boundaries to provide for the future logical extension of the road through adjacent properties. For road(s) located within or adjacent to a development, the proposed development shall continue the road to a termination point acceptable to the Planning Commission. The termination point of roads abutting adjacent properties and having the potential to connect with other roads in the future shall, at the expense of the developer and consistent with City requirements, place a permanent sign at that point to notify the public of such potential extensions so existing and future residents and property owners are made aware far in advance.

A major component in road layout is neighborhood traffic safety. This is an essential transportation issue in the City. Roads should be designed to limit excessive traffic speeds and volumes in neighborhoods and provide for safe travel for all modes of transportation.

3.1.1 Traffic Impact Analysis

As a part of the development approval process, the Planning Commission may require, at no cost to the City, a Traffic Impact Analysis (TIA) to be prepared in accordance with industry standards. The findings of such traffic studies shall be utilized by the Planning Commission in determining the extent of required road improvements, but shall not limit required improvements, when in the determination of the Planning Commission, additional improvements may be necessary to protect the safety of the public.
This traffic analysis shall be prepared by a Kentucky licensed Professional engineer.

3.1.2 Connectivity

Developments shall achieve internal road connectivity by providing multiple connections to the existing City road network.

3.1.3 Traffic Control Devices

All signs, markings, signals and other traffic control devices used on roads in the City shall be designed, installed and used in conformance with the Manual on Uniform Traffic Control Devices (MUTCD), Kentucky Transportation Cabinet or City regulations as it may apply.

3.1.4 Private Roads

Private roads will not be allowed. These regulations provide no provision for Private Roads within a platted subdivision.

3.2 Road Cross Sections and Right-of-Way

3.2.1 Road Cross Sections

Road classifications for all streets are included previously in these regulations in the table included at Article III, D.and with the exception of KYTC controlled Interstates and Freeways are illustrated below on the following pages.

(1) Street types shall be governed by the standard drawings included at the end of this Appendix. These street types are referred to as either Minor Local or Collector Streets within this Appendix.

3.2.2 – Right-of-Way and Easements

(1) Right-of-Way

Minimum right-of-way widths shall be per the Standard Details and these regulations. Topography, special design features and other factors may require widths greater than this minimum. The Planning Commission shall have final review with determination of any additionalright-of-way that is required for the design of a specific road segment. This review shall be based onrecommendations by the City Engineer.

(2) Easements

All easements shall be approved for use by the Planning Commission on a case-by-case basis. The following types of easements may be required by the City:

a. The first type is a Public Utility and Drainage Easement (PUDE).
b. The second type is a Temporary Construction Easement (TCE) that may be used to provide adequate construction area in the construction of a road or drainage project.
c. A third type is a Slope Easement (SE) that provides for slopes between the road right-of-way and adjacent property.
d. A fourth type is an Access Easement (AE) that allows multiple users of an access to the road.
e. A fifth type is a Permanent Drainage Easement (PDE) for drainage purposes only.
f. A sixth type is a Public Utility Easement (PUE) for public utility purposes only
g. A seventh type is a Specialty Easement for preservation or protection of a specific feature (i.e.,landscape buffer easement or historic wall easement, etc.).

(3) Improvements in Right-of-Way

It is the policy of the City to place all permanent public roads and road related features in public road right-of-way, with fee simple ownership by the City.

(4) Additional Right-of-Way Widths on Existing Roads

Developments that adjoin existing roads shall dedicate additional fee simple right-of-way, where necessary, to meet the minimum requirements for the road classification of the existing road, or other

dimensions as required by the City Commission. This dedication shall be as follows:

(a) The entire right-of-way for the required road classification shall be provided where any part of the development is on both sides of the existing road.
(b) When the development is located on only one side of the existing road, one half (1/2) of the required width of the right-of-way, measured from the center line of the existing road right-of-way, shall be provided.

(5) Dedication Process

The dedication of right-of-way and easements for public purposes shall normally occur through the platting process. When dedications are required outside the platting process, they shall be dedicated in a manner and format recommended by the relevant City staff and City Attorney, and as approved by the City Commission.

3.3 Design Criteria

The design criteria shall apply to all roadways that are required to be designed and constructed to City subdivision road standards and specifications.

The Planning Commission, in consultation with City departments and State agencies, may allow modifications to the design criteria.

The Planning Commission is authorized to require studies or other pertinent information to be provided by the Developer to help support or validate the modification request, at no cost to the City.

Roads are to be designed in accordance with AASHTO standards and the design speeds specified for each road classification and as summarized in Table 3-1 below.
In Table 3-1, minor local roads are streets with ADT up to 500.

TABLE 3-1 GENERAL DESIGN STANDARDS FOR ROADS

	RESIDENTIAL ROAD	NON-RESIDENTIAL ROAD
Design Speed (MPH)		
Minor Local	25	N/A
Minor Collector	30	30
Major Collector	40	40
Arterial	To be determined by the Planning Commission per the City Street Plan	
Maximum Percentage Grade		
Minor Local	12%	N/A
Minor Collector	12%	8%
Major Collector	8%	8%
Arterial	To be determined by the Planning Commission	
Minimum Percentage Grade		
All Roads	1%	1%
Horizontal and Vertical Curves (are to be designed as per AASHTO standards)		
Minimum K values for Vertical Curves (minimum length is 50 ft.)		
Minor Local	(Crest: 12) (Sag: 17)	N/A
Minor Collector	(Crest: 19) (Sag: 37)	(Crest: 19) (Sag: 37)
Major Collector	(Crest: 44) (Sag: 64)	(Crest: 44) (Sag: 64)
Arterial	To be determined by the Planning Commission	
Minimum Centerline Radius for Horizontal Curves		
Minor Local	100	N/A
Minor Collector	300	300
Major Collector	550	550
Arterial	To be determined by the Planning Commission	

Minimum Centerline Arc length (feet)		
Minor Local	100	N/A
Minor Collector	100	100
Major Collector	300	300
Arterial	To be determined by the Planning Commission	

Maximum Super-Elevation (foot/foot)		
Minor Local & Minor Collector	0.04	0.04
Major Collector Road & Arterial Road	0.04	0.04
Run-out Length	Min. 100 ft. (Refer to ASSHTO)	Min. 100 ft. (Refer to ASSHTO)

Minimum Tangent Between Horizontal Curves (feet) and Approaching Intersections		
Minor Local	35	N/A
Minor Collector	100	100
Major Collector	200	200
Arterial	To be determined by the Planning Commission	

Reverse Curves: Minimum Tangent Between Curves (feet)		
Minor Local	50	N/A
Minor Collector	100	100
Major Collector	150	150
Arterial	To be determined by the Planning Commission	

Broken-Back Curves: Minimum Tangent Between Curves (feet)		
Minor Local	100	N/A
Minor Collector	200	200
Major Collector	300	300
Arterial	To be determined by the Planning Commission	

Lane Transitions and tapers to be designed as per AASHTO standards

Stopping Sight Distances- Minimum (in feet) (To be designed as per AASHTO standards)		
Minor Local	115	N/A
Minor Collector	200	200
Major Collector	305	305
Arterial	To be determined by the Planning Commission	

Passing Sight Distances- Minimum (in feet) (To be designed as per AASHTO standards)		
Minor Local & Minor Collector	N/A	N/A
Major Collector	1470	1470
Arterial	To be determined by the Planning Commission	

Intersections & Driveways Design- Minimum Sight Distance at & (Distances in feet) (Sight distances required are based upon the classification of the street being intersected)		
Minor Local	150	N/A
Minor Collector	250	250
Major Collector	400	400
Arterial	To be determined by the Planning Commission	

Maximum Grade At Intersections: Distance from Intersecting Edge Of Pavement (EOP)		
Minor Local	2% for 35 ft. from EOP	N/A
Minor Collector	2% for 50 ft. from EOP	2% for 50 ft. from EOP
Major Collector	3% for 100 ft. from EOP	3% for 300 ft. from EOP
Arterial	To be determined by the Planning Commission	

Note: The Table is based upon the design speeds listed above. If the posted speed limit is greater or a selected design speed is greater than the above listed "Design Speed"; the requirements for design must likewise be increased. Refer to AASHTO design manuals. The design engineer should consider the prevailing speed as is likely for all of these criteria.

3.3.1 - Design Speed

The minimum design speed used in road design shall be in accordance with Table 3-1.

3.3.2 Road and Lane Widths

Refer to the details provided in these regulations and standards.

3.3.3 Special Road Configurations

(l) Cul-de-Sacs

(a) Permanent cul-de-sacs shall not exceed 1500 feet in length unless approved by the Planning Commission for stated reasons involving topography or other physical hardship. Cul-de-sac lengths shall be measured from the nearest three (3) or four (4) way intersection.

(b) Design Requirements: Cul-de-sac roads shall terminate in a circular turn around having a right-of- way radius of at least fifty (50) feet, and a paved radius of at least forty (40) feet at its outside edge.

(c) Temporary Cul-de-Sac: Where a development is being implemented by sections, a temporary cul-de-sac may be used if the overall development plan allows the cul-de-sac to be eliminated at final build-out of the development. When the cul-de-sac is longer than 150 feet (measured from the edge of the intersecting pavement), a temporary circular turnaround having a radius of at least forty (40) feet constructed at a minimum of Double Bituminous Surface Treatment (DBST) shall be provided within a temporary easement. The temporary easement will be automatically abandoned upon the continuation of the road. The easement radius shall be a minimum of fifty (50) feet. A performance security must be posted for the amount of required paving. A sign must be provided at the end of the temporary cul-de-sac noting that the road might be extended in the future. The Planning Commission's preference is to locate the temporary cul-de-sac within the future phase.

(d) Cul-de-Sac Medians: A center median island may be permitted by the Planning Commission where it can be demonstrated that all routine service vehicles and emergency vehicles can be readily accommodated to the satisfaction of the City emergency management agency and school system. Any median shall become part of the development common area and maintained by the homeowners' association.

(2) Eyebrows

(a) Where Allowed: Eyebrows shall be permitted only on Local Roads. They may only be used in tangent sections.

(b) Design Requirements: Eyebrows shall be a minimum of twenty-five (25) feet in length and a maximum of fifty (50) feet measured along the flowline. Lengths exceeding fifty (50) feet shall incorporate an island or median as approved by the Planning Commission. Designs that require backing maneuvers for vehicles will be prohibited. Any island or median shall become part of the development common area and maintained by the homeowners' association.

(3) Dead-End Roads

(a) Where Allowed: Permanent dead-end roads without cul-de-sac designs are prohibited.

(b) "Stub" Roads: Temporary dead-end "stub" roads (without temporary cul-de-sacs) will only be permitted on Local Roads and at the discretion of the Planning Commission. On residential local roads, "stub" roads shall not be longer than 150 feet.

(c) Temporary Turnaround: At locations where a planned through road is approved to be temporarily terminated and is longer than 150 feet a temporary turnaround shall be constructed as outlined in Section 3.3.3(d). As a minimum, Double Bituminous Surface Treatment (DBST) is required in the temporary turnaround, but no curb and gutter are required on temporary dead-end roads turnarounds. The Planning Commission's preference is to locate the temporary turnaround within the future phase.

If the Temporary Turnaround is constructed within a future phase, the entire turnaround may be built within a temporary easement. If the Temporary Turnaround is to be constructed within a recorded section of the subdivision, the road stem (i.e., 50 ft. wide) shall be dedicated as road ROW and an additional temporary easement shall be provided for the remainder of the bulb. In either case, the temporary easement shall be included on the Final Plat with a note stating: "The temporary easement is established for the road turnaround and shall be abandoned upon extension and dedication of the road extension".

(d) Signs Required: A sign must be provided at the temporary road end noting that the road might be extended in the future. Signing for temporary, dead-end roads shall be in accordance with the requirements of the Manual of Uniform Traffic Control Devices (MUTCD) Chapter 7, Traffic Signs and Markings.

3.3.4 - Horizontal Alignment

The design of horizontal curves in road design should be based on an appropriate relationship between design speed and curvature and on their joint relationships with super elevation and side friction. On Arterial and Collector roads, curve radii and tangents shall be as large as possible using the minimums only where necessary. An exception would be roads located within pedestrian-oriented areas, such as Centers as defined in the Comprehensive Plan, in which case curve radii should be as small as possible while still accommodating motorized vehicles. Refer to Table 3-1 for design standards.

(1) Horizontal Curves on Vertical Curves
For driver safety, horizontal curves shall not begin near the top of a crest vertical curve nor near the bottom of a sag vertical curve.

(2) Sight Distance on Horizontal Curves
Where there are sight obstructions on the inside of curves or the inside of the median lane on divided roads, the designer will need to adjust the cross-section elements or change the alignment if removal of the obstruction is impractical to provide adequate sight distance.

(3) Coefficient of Friction
The coefficient of friction shall conform to the values in the KYTC Standards or AASHTO Green Book, as appropriate.

(4) Off-Site Design Centerline, Flowlines and Cross Sections
To assure that future road improvements contained in multi-phase developments will meet these standards, the centerline, flowline, and cross sections of all roads, except permanent cul-de-sacs, shall be continued for five hundred (500) feet beyond the proposed construction.

(5) Joining Existing Improvements
Connection with existing roads shall be made to match the existing alignment grade of the existing improvements, in accordance with horizontal and vertical alignment criteria.

(6) Cross Slope
The cross slope shown on the Standard Details shall apply to the base stone, as well as the pavement courses. The City may require verification by survey if the City deems it necessary to obtain compliance.

(7) Cross Slope for Road Modifications

When widening an existing road or adding turn lanes to an existing road, the maximum cross slope shall be 3%. When providing asphalt overlays, the maximum cross slope shall be 4%. The resulting cross slope of the widened portion shall be within the limits stated above and the new cross slope shall be no less than the existing cross slope. Alternatively, the existing pavement may be removed and re-profiled to comply with these standards.

3.3.5 - Vertical Alignment

The design of vertical curves in road design should be simple in application and should result in a design that is safe and comfortable in operation, pleasing in appearance and adequate for drainage.
The Vertical Alignment shall also provide the following:

(l) Compliance with Maximum and Minimum Grades for Roads
The maximum and minimum grades for specific road classifications are shown into Table 3-1.

(2) Compliance with Requirements for Using Vertical Curves as outlined in these regulations and AASHTO Requirements.

Both centerlines and the curb and/or gutter flowlines shall also be designed with vertical curves to meet AASHTO Green Book requirements. A series of grade breaks may be used in lieu of a specified vertical curve as long as the series of breaks meet the vertical curve criteria in these standards for the design speed. In sag curves on flow line, the minimum grade requirement shall override the slope within the vertical curve.

(3) Smooth transition as appropriate for Joining Existing Improvements
Connection with existing roads shall be made to match the existing grade of the existing roadways, in accordance with vertical and horizontal alignment criteria (grade breaks shall not exceed allowable).

(4) Vertical Clearance
Vertical clearance above a road shall be a minimum of fourteen and three-tenths (14.3) feet unless the road is designated as a truck route, then the minimum vertical clearance shall be sixteen and one-half (16.5) feet. The Public Works Department may require greater clearance when considered necessary to meet future road operation requirements.

(5) Off-Site Continuance of Grade and Ground Lines
To assure that future road improvements will meet these standards the grade and ground lines of all local and collector roads, except cul-de-sacs, shall be continued for a minimum of 200 feet beyond the proposed construction.

3.3.6 Sight Distance

(l) General
The design of the roads shall provide sight distance, as required, for Stopping Sight Distance in Table 3.1. and AASHTO standards

(2) Criteria for Measuring Sight Distance

Sight Distance Calculations: For sight distance calculations, the height of the driver's eye shall be assumed to be 3.5 feet above the road's surface.

Stopping Sight Distance Calculations: For stopping sight distance calculations, the height of an object shall be assumed to be 2.0 feet above the road surface.

Intersection Sight Distance Calculations: For intersection sight distance calculations, the height of the intersecting vehicle shall be assumed to be 3.5 feet above the surface of the intersecting road.

The designer shall consider the impacts of grades and vertical curvature in calculating sight distance.

(3) Sight Obstructions
Any object within a sight distance triangle more than twenty-four (24) inches above the flowline elevation of the adjacent road shall constitute a sight obstruction and shall be removed or lowered. Such objects include, but are not limited to, berms, buildings, parked vehicles on private property, cut slopes, hedges, trees, shrubs, mailbox clusters, utility cabinets, or tall crops. In no case shall any permanent object encroach into the line-of-sight of any part of the sight distance triangle. Road trees within the sight distance easement may be excepted from this requirement if pruned up to eight (8) feet from the grade level, and the trunks at maturity do not collectively hinder sight lines as determined by the City. Mailboxes shall be installed so that no portion of the receptacle or the structure housing it is closer than ten (10) inches from the edge of pavement on a road with no raised curb and no closer than six (6) inches on a road with a raised curb.

(4) Sight Distances
Road intersections shall be designed so that adequate sight distance is provided along all roads. The required sight distance shall be determined by the design speed and grades of the road and the acceleration rate of an average vehicle. In addition, for all roads that intersect with Arterial and Collector roads, the sight distance must be large enough to allow a vehicle to enter the road and accelerate to the average running speed without interfering with the traffic flow on the Arterial or Collector Road. Intersection sight distance is generally determined based on the different types of traffic control at an intersection. In most cases, sight distance triangles will be required as described below. The different situations, or cases, that must be considered are defined in the following discussion.

(5) Sight Distance Easements
All sight distance easements must be shown on the road plan/profile plans. All necessary sight distances must be within the public right-of-way or a sight distance easement dedicated to the City. When the line-of-sight crosses onto private property, a “Sight Distance Easement” shall be dedicated to provide the required clear sight distance. Terms of the easement shall be shown on the Final Plat. The condition causing the need for a sight distance easement shall be eliminated by design measures if at all possible.

3.3.7 Lane Transitions –
Lane transitions are to be designed to AASHTO standards or KYTC design guidelines.

3.3.8 Intersections

(1) Spacing of Intersections
Road jogs and/or intersections on minor collector and local roads of less than two hundred (200) feet shall not be allowed, except where both intersecting roads are cul-de-sacs, in which case the road jogs with centerline offsets of less than one hundred and twenty-five (125) feet shall not be allowed.

(2) Lane Alignment
All lanes shall be in alignment through each intersection. Should a shift of greater than two (2) feet be allowed, special markings and signs may be required to support that shift design.

(3) Angle of Intersection
Crossing roads should intersect at ninety (90) degrees whenever possible. In no case shall they intersect at less than eighty (80) degrees or more than on hundred (100) degrees.

(4) Curb Returns

Radii of Curb Returns: The corner radii at road intersections shall meet the following minimum requirements unless otherwise approved or required by the Public Works Department. For curb returns on a State Highway, KYTC’s curb radii requirements shall supersede these requirements. At road intersections in residential areas, the minimum radius of curb return shall be twenty-five (25) feet. In industrial and commercial areas, and when a residential road intersects with a non-residential road, the minimum curb return radius shall be forty (40) feet. The minimum radius at the property line at intersections shall be thirteen (13) feet. Where the angle of the road

intersection is less than ninety (90) degrees, the Public Works Department may require greater radii.

3.3.9 – Curbs & Gutters, Shoulders and Ditches, Driveways within the ROW

(1) Mountable Curb and Gutter

The mountable curb section shall be in accordance with the Standard Drawings. A vertical curb and gutter may be used at the Developer's option.

(2) Shoulders

All subdivision roads constructed in the City should be constructed with mountable curb or other approved curb section. Subdivision roads with a ditch section and shoulders are discouraged,but may be allowed in certain contexts (e.g., short street extensions of existing ditch sections).

(3) Roadside Ditches

(a) Location: Ditches are strongly discouraged in the City for new development or subdivision roads. Where the City approves a road section developed without curbs (and with roadside drainage ditches), the design must complete the ditch construction with the installation of sod or other approved erosion control blanket within the ditch area.

(b) Ditch Profile: The profile grade of the ditch shall be maintained at a minimum slope of two (2.0)percent and a maximum slope of five (5.0) percent. The side slopes of the ditches outside of the right-of-way shall not be steeper than 3H:1V and meet any specific criteria of the drainage study.

(c) Ditch Slope: The slope and capacity of any roadside ditches shall be maintained in any areas that driveways cross the ditch. Each site is required to provide a concrete pipe, a minimum of fifteen (15) inches in diameter, calculated to meet capacity and strength requirements of the drainage study. The pipe shall be designed by the developer's engineer to have no less than twelve (12) inches of cover over the pipe. All portions of the driveway within the right-of-way shall be paved with concrete or asphalt.

(4) Driveways within the Public Road Right-of-Way

All portions of a driveway within a public right-of-way shall be paved with concrete or asphalt. Gravel or Double Bituminous Surface Treatment (DBST) are not acceptable. This applies to any driveway added to any development or subdivision and to any construction by the developer, home builder or homeowner. Driveways intersecting with the public right-of-way at a slope of five (5) percent or greater shall be required to pave an additional twenty (20) feet at discretion and recommendation of the Street Superintendent.

(5) Driveway Approach Length and Restrictions

Driveways for non-residential uses must extend a minimum of thirty (30) feet into the property past the lot line abutting the road before the edge of the driveway may be intersected by a parking lot space, aisle, or drive. The minimum length of the driveway restriction may be extended, provided that it is determined by the Public Works Department that anticipated traffic volumes and commonlyaccepted and applied traffic engineering principles justify the need for longer, controlled storage lanes.

4. ROAD CONSTRUCTION

4.1 Overview

This Section includes all clearing and grubbing, stripping topsoil, excavation, undercutting, embankment, trench excavation, backfilling and testing required for construction of City roads within the City. Earthwork embankments and excavations shall be constructed in close conformance with the lines, grades and typical cross sections shown on the approved plans. Demolition of structures, asbestos abatement, and any additional safety and environmental issues must be addressed prior to issuance of a demolition permit by the City and otherobstructions and abandonment plans are to be addressed in the construction plans. For all earthwork operations, the Developer/Contractor will be required to assist and/or provide for observations and testing. See Chapter 1 for additional testing and inspection requirements.

4.2 Reference Specifications

Unless modified by these specifications, all earthwork materials and construction requirements shall conform to the "Standard Specifications for Road and Bridge Construction" published by the Kentucky Transportation Cabinet (KYTC) (latest edition), hereafter referred to as the "Standard Specifications".

4.3 Permits & Fees

Refer to Chapter 1 for additional requirements. Any work performed, including placement of fill, prior to permit and proper notification to the City will be removed and replaced in accordance with these regulations.

4.4 Soil Erosion/Sediment Control

All projects requiring disturbance of land will require the design of a site-specific erosion prevention and sediment control (EPSC) plan in accordance with the City Stormwater Management Ordinance.

4.4.1 Stormwater Permits

All project erosion prevention and sediment control measures shall comply with the Kentucky Department of Environment and Conservation (KYDEC) Permits and the Kentucky Erosion Prevention and Sediment Control Field Guide Best Management Practices (BMP) Manual and the City Stormwater Management Ordinance. BMP's available from other Municipal or City Stormwater programs are available for additional guidelines. All erosion prevention and sediment control measures shown on the approved plans shall be in placeprior to commencing land disturbance activities.

4.4.2 Other Permits

The contractor and/or developer are responsible for obtaining all permits required by other agencies and/or government entities having jurisdiction including but not limited to Kentucky Department of Environment and Conservation (KYDEC), US Army Corps of Engineers, the Environmental Protection Agency (EPA), and the Tennessee Valley Authority (TVA).

4.5 Utility Coordination

Locating and protecting existing utilities and coordinating with utility providers is the responsibility of the developer, the developer's contractor, and their agents. Kentucky's One-Call utility location service shall be utilized in addition to coordination with local utility owners. The contractor shall at all times protect existing utilities. The City shall not be responsible for damage to existing utilities, roadways and property; and the City's approval of the construction plans shall not be used as a defense by the

developer or contractor. The contractor and/or developer are responsible for obtaining approvals and paying any fees or charges required by any utility.

4.6 Clearing and Grubbing

Before grading is started, the entire road right-of-way, including side slopes, shall be cleared of all objectionable matter, such as trees, stumps, roots, weeds, heavy vegetation, etc. Clearing outside of the road right-of-way shall be confined to the clearing limits shown on the approved construction plans.

4.6.1 Tree Protection
Living trees with drip lines located beyond the construction lines are to remain undisturbed and protected by the contractor. The developer will be responsible for establishing the lines of construction clearing in accordance with the above requirements.

4.6.2 Burning Permit
Burning of cleared vegetation and perishable debris must be performed only in accordance with the City Burning Ordinance.

4.6.3 Debris Removal
Unless otherwise approved, all debris (i.e., cleared trees, brush, fences, building materials, etc.) shall be removed from the right- of-way, out of view from the road, and shall not be buried or otherwise become part of the road subsurface or lot areas. Cleared materials from the developer's property shall be legally disposed of by removal from the site or placement in a manner that will not affect any possible future building area

4.7 Excavation

Excavation within the right-of-way includes stripping topsoil, grading of the road and required improvements, borrow material, blasting, channel excavation, rock excavation, undercutting and establishing an acceptable subgrade. Excavation shall be performed in close conformance to the lines, grades, side slopes and typical cross sections of the approved construction plans.

4.7.1 Property Protection
Excavation shall be performed in a safe and orderly manner with due consideration given to protection of adjoining property and trees outside the clear lines. Approved erosion control measures shall be installed and regularly maintained to insure protection of adjacent properties. Excavated material when required shall be stockpiled in such a manner as to not obstruct roads, driveways or other access points.

4.7.2 Safety
All excavation shall comply with the Occupational Safety and Health Administration's (OSHA's) "Construction Industry Standards," as well as all applicable Federal and State regulations. Open excavations and cut slopes shall be protected by suitable means to protect workers, inspectors and other pedestrians having access to the site.

4.7.3 Structure Excavation
Excavation for bridges, culverts and pipes shall be in accordance with the KYTC Standard Specifications. Excess rock excavation below foundation elevations shall be filled with leveling concrete. Excess rock excavation below the elevation of the bottom of the pipe bedding, cradle or encasement shall be filled with material of the same type and placed and compacted in the same manner as the bedding material.

4.7.4 Channel Excavation
Excavation within waterways will require approved permits prior to commencing operations, and the equipment shall be kept out of the waterway as to meet DOW and EPA requirements.

4.7.5 Blasting

Rock excavation requiring blasting shall be performed in accordance with all State requirements. Blasting operations shall be performed only by experienced, licensed blasting contractors. Blast areas shall be protected with mats or earth overburden to prevent flying debris. When blasting near public areas or motorists, blast zones are to be set up with proper signing and flagmen to secure the blast area prior to detonating explosives. The contractor shall be responsible for all damages and shall repair or replace any and all damages at no expense to the City. A pre-blast survey and blasting monitoring is required by the City. The Contractor and Developer are responsible for making sure these items are accomplished.

4.8 Undercutting

When unsuitable material to include but not limited to, tree roots, trash, concrete and asphalt fragments or soft organic or plastic clays are encountered in the subgrade, the area shall be undercut and backfilled with select material. The contractor and the developer are responsible for executing required undercutting and re-establishing the subgrade to the satisfaction of the City. The developer and the contractor will need to address these matters within their private contract. The developer and contractor shall address how undercutting will be accomplished prior to commencing construction. Again, this is the responsibility of the developer and the contractor.

4.8.1 Limits of Undercutting

Areas and depths of undercutting required for existing roads will be determined by City officials during inspections of subgrade or roadway fill construction and for final acceptance of City roads. The extent of undercut areas shall primarily be determined by proof-rolling the subgrade and marking the areas of distress with marking paint or other means.

4.8.2 Proof-Rolling

Vehicles for proof-rolling shall be tandem axle dump trucks fully loaded with a minimum material payload of twenty-three (23) tons. Material may be dry soil or rock loaded at the site or preferably loaded off-site at a quarry with crushed stone and accompanied with a certified weight ticket.

4.8.3 Backfill

Cuts or undercutting in the roadway shall be backfilled with (a) surge rock/ shot- rock or (b) crushed stone or (c) suitable soils obtained from a borrow area that all must be approved by the City.

Backfill material should be placed in lifts not to exceed twelve (12) inches unless more stringent requirements are required based upon the material to be used. Each lift shall be compacted with a dozer or other approved heavy equipment. In any case, the contractor is responsible for placing materials in order to achieve an acceptable proof-roll or the undercutting operations will be repeated until it is done to the satisfaction of the City.

4.9 Embankment

Embankment material shall consist of approved soil or rock obtained from on-site excavations or hauled from an acceptable borrow pit area and shall be placed in fill embankments in reasonably close conformance with the lines, grades, side slopes and typical cross sections shown on the approved plans. All embankments shall be placed in accordance with of the KYTC Standard Specifications. Any embankment placement occurring over areas that will not properly proof roll shall be reviewed by a geotechnical engineer for recommended solutions.

4.9.1 Soil Materials

All borrow material used shall be of AASHTO M145 classification A-6 or better or of the same classification or better than the predominant soil comprising the roadway excavation. Borrow material shall be free of organic material and shall not be obtained from wetland areas.

4.9.2 Rock Materials

Embankments comprised of shot rock shall be processed from an acceptable screening and or selection process that produces rock of the required gradation. Rock shall meet soundness requirements for degradable or non-degradable rock under a 60,000 lb. roller compactor or as stated in the KYTC Standard Specifications.

4.9.3 Soil Placement

Embankments comprised of predominantly soil or degradable rock shall be placed in horizontal layers not to exceed ten (10) inches in depth before compaction and each layer shall be compacted to a density not less than 95% of the maximum density. The top six (6) inches of the subgrade in both cut and fill sections shall be compacted to 100% of maximum density. In-place embankment material that pumps under wheel loading of a fully loaded tandem axle dump truck during proof-roll testing shall be undercut and removed. See section 4.8 (Undercutting) for additional information.

4.9.4 Rock Placement

Embankments of predominantly non-degradable rock may be placed in three (3) feet thick lifts with no rock more than two (2) feet in thickness. Occasional rocks up to four (4) feet in thickness may be placed in the outer edges of the fill slope. Large rock fill shall be limited to three (3) ft. below subgrade.

4.10 Underdrains

In addition to Stormwater drainage structures and appurtenances, subgrade underdrains may be required by the City during construction due to site specific subsurface conditions or drainage issues.

Underdrains shall consist of free draining crushed stone, four (4) inch diameter perforated pipe and filter cloth. All underdrains shall be constructed in accordance with KYTC standard drawings for underdrains with pipe and filter cloth.

4.11 Road Damages

Damage to existing or new roads/subgrade, and structures, utilities, trees, or private property shall be repaired and restored to its original condition by the contractor due to hauling or otherwise moving equipment, spills of concrete, paint, oil or any other debris which damages the road or results in cleanup costs for the City Public Works Department.

4.12 Dust Control

The contractor/developer shall sprinkle the road construction surfaces with water or apply a dust-allaying material when such operations are necessary to prevent a dust nuisance or if directed by the City.

4.13 Operating Hours

Normal working hours will be limited to 6 AM-9 PM Monday through Friday. Saturday work will be limited to 8 AM-4 PM. Sunday work will not be allowed without a special waiver by the Planning Commission.

4.14 Final Dressing

Roadside slopes and ditches shall be shaped within reasonably close conformity to the specified lines, grades and cross sections. Ditches shall be fine graded to eliminate areas of ponded water. All rock cuts shall have all loose fragments removed and left in a neat, safe and workmanlike manner.

4.15 Seeding and Sodding

All slopes, ditches and detention ponds shall be stabilized with seeded grass or preferably sod. Stabilizing of disturbed areas shall be accomplished in accordance with the requirements of the Kentucky Department for Environmental Protection permits, requirements and guidelines.Stabilized areas shall be considered acceptable for final inspection when the seeded or sodded area has a seventy (70) percent or better establishment of grass coverage.

5. PAVEMENT DESIGN

5.1 Overview

The contractor and/or developer shall provide all plant, labor, material and equipment to furnish and construct the bituminous concrete pavements in reasonably close conformity with the lines, grades, thickness and typical cross sections shown on the construction standards and specified herein, or as called for on the approved plans and specifications.

The specifications referenced for each material shall fully apply and no deviations from said specification limits or quality will be permitted unless specifically stated otherwise in this Section. The failure of any component of a product to comply with the referenced specifications shall constitute failure of the whole product.

The contractor and/or developer shall obtain approval of both the subgrade and stone base from the City Road Department prior to commencing with the paving operations.

For all paving operations, the developer and/or contractor may be required to provide testing from an independent geotechnical firm approved by the City. See Chapter 1 listed specifications for additional testing and inspection requirements.

5.2 Requirements

5.2.1 General Criteria

(a) Existing Roads
For existing roads to be improved by the developer, the City may require testing of the existing pavement and base structure to determine if an overlay is feasible, or if reconstruction is necessary. The City shall notify the developer and/or contractor if and when this testing is required.

(b) KYTC Design Standards
The design criteria and procedures presented follow the Kentucky Transportation Cabinet (KYTC) Standard Specifications for Road and Bridge Construction, latest edition and the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Design of Pavement Structures, latest edition.

(c) Pavement Type
Roads are to be constructed of asphaltic concrete pavement, base course material, or sub-base material (where required), placed on compacted subgrade.

(d) Treated Subgrade
The use of treated subgrade, treated base, and/or full depth asphalt pavement may be acceptable when designed and submitted by the professional engineer, and approved by the City in accordance with these standards, as well as well the KYTC Standard Specification s for Road and Bridge Construction, latest edition.

5.3 Design Criteria

5.3.1 Minimum Pavement Section

The Standard Drawings provided with these regulations provide the minimum acceptable pavement Sections.

5.3.2 Special Considerations

(a) Protecting & Rehabilitating/Repairing Existing Roads

On paved surfaces, within public rights-of-way, do not use or operate tractors, bulldozers, off- road trucks or other power-operated equipment, the treads or wheels of which are so shaped as to cut or otherwise damage such surfaces. Damaged roadways shall be repaired to the City's satisfaction bythe contractor and/or developer. Placing of mats, steel plates or using other methods of protection may be allowed subject to the approval of the City and per the Standard Drawings.

Any roadway surface damaged shall be promptly restored to a condition at least equal to that in which they were found immediately prior to the beginning of operations. Suitable materials and methods shall be used for such restoration. All dirt and mud tracked on existing roadways shall be removed promptly.

Prior to overlaying existing asphalt, the City may require nondestructive testing to determine the amount of overlay necessary to bring the road to current subdivision road standards. The method of nondestructive testing and the data obtained must be in a form acceptable to the City. All "pot-holes", utility trench settlement, cracking, and any similar imperfections shall be repaired to the City's satisfaction prior to overlaying. The following should serve as a guideline for the rehabilitation and repairing of existing asphalt roads in the City:

(i) General - The contractor is to provide the necessary labor, materials and equipment to restore and maintain the various road and driveway surfaces of all types, pavement and driveway bases, curbs, curbs and gutters, and sidewalks disturbed, damaged, or demolished during the performance of the work.

(ii) Permits - Before starting any work, secure the necessary permits to work within the City or State ROW and easements when surface materials will be disturbed or demolished.

(iii) Materials - The quality of materials used in the restoration of existing roads, parking areas and driveways shall produce a finish surface equal to or better than the condition before work began. Compacted crushed stone backfill shall be in conformance with the KYTC Standard Specifications for Road and Bridge Construction, latest edition.

Asphalt for a temporary patch shall be Bituminous Plant Mix Surface Course (Cold Mix) as specified in the KYTC Standard Specifications for Road and Bridge Construction, latest edition.

(iv) Execution - Where trenches have been opened in any roadway or road that is a part of the State of Kentucky highway system, restore surfaces in accordance with the requirements of KYTC. All other restorations shall be done to the satisfaction of the City and per the Standard Details.

Concrete curbs and/or curbs and gutters shall be restored as required to match existing construction. Replace damaged sections with completely new sections or squares; patching ofdamaged sections will not be permitted.

When a manhole or valve box frame and cover, or other utility casting, requires adjustment to an elevation one (1) inch or more above the existing pavement grade and is exposed to traffic before final paving is completed, a temporary ramp shall be constructed by feathering a cold mix for 360 degrees around the casting. A taper slope of not less than two (2) feet per one (1) inch shall be used. During the final paving operation, the temporary ramp shall be removed fromaround the casting to allow for permanent paving installation.

5.4 Pavement Structure Components

5.4.1 Subbase

The subbase consists of the layer(s) of specified or selected material of designed thickness placed on a subgrade to support a base course, surface course, or both.

5.4.2 Subgrade Crown

The subgrade and each subsequent step in roadway paving construction shall have the crown constructed per the standard details. The City can require the developer to provide field run surveyed cross sections to confirm the crown at subgrade or subsequent paving steps prior to proceeding to the next step.

5.5 Installation

The mineral aggregate base shall be constructed in one or more layers with the compacted thickness being that as shown on the approved plans or the construction standards. Prior to the spreading of any mineral aggregate, the subgrade shall be proof rolled with a fully loaded tandem dump truck (or other approved equipment). Any areas which pump will require undercutting, backfill and compaction to specified limits. Additional proof rolling shall be required for all repaired areas. Hauling over material already placed will not be permitted until it has been spread, shaped and compacted to the required density.

The base shall be constructed in two or more layers of approximate equal thickness. For total base thickness of 6", lifts shall be placed and compacted in three (3) inch thicknesses. For ten (10) inch base thickness, lifts shall not exceed five (5) inches.

Except where mechanical aggregate spreading equipment is used to place the mineral aggregate base material, final shaping of each layer prior to compaction shall be accomplished by motor grader. In the event that mechanical spreading equipment fails to shape the base material properly, final shaping shall be done by motor grader or other approved means.

Immediately following spreading, the mineral aggregate base material shall be shaped to the required degree of uniformity and smoothness and compacted to the required density prior to any appreciable evaporation of surface moisture. Compaction of each layer shall be continuous until the minimum density requirement is achieved. Compacting equipment shall be smooth drum steel wheel vibratory rollers.

The thickness of the completed mineral aggregate base shall be in reasonably close conformity to the thickness shown on the approved plans or as called for by the construction standards. The thickness shall be measured at such frequency as established by the City by means of test holes or other approved methods. This shall be in addition to proof-rolling to be accomplished with the City during construction

Any testing shall be at no cost to the City.

The surface of the finished mineral aggregate base shall be in reasonably close conformity to the lines, grades and cross-sections as shown on the approved plans or construction standards and shall have a satisfactorily smooth riding quality.

Upon completion of the mineral aggregate base, it shall be maintained, under traffic if required, smooth and uniform until covered by the next stage of construction.

The mineral aggregate base, prepared as outlined herein, shall be sprinkled lightly with water to settle any loose dust. The bituminous prime coat shall then be applied uniformly over the surface of the base by the use of an approved bituminous distributor. The prime coat shall be applied at the rate of three-tenths (0.3) gallon per square yard and shall be maintained at an application temperature between 60

and 140 degrees Fahrenheit (F). Any areas containing an excess or deficiency of priming material shall be corrected by the addition of blotter material or bituminous material, as directed by the City.

The contractor shall protect all structures and concrete surfaces from the bituminous material during construction. If after the bituminous prime coat has been applied, it fails to penetrate before traffic has to be turned back on the road, or paving is interrupted overnight, a dry cover material shall be spread at a rate of ten (10) pounds per square yard to prevent damage to the primed surface. An excess of cover material shall be avoided. The cover material shall be applied with suitable spreading devices to prevent the tires of the trucks from running over the fresh bituminous prime coat.

The contractor shall maintain the prime coat and the surface intact until it has been covered by the next stage of construction. No succeeding stage of construction shall be placed upon the prime coat until it has properly cured.

The asphaltic concrete base course or surface course; bituminous plant mix (Hot Mix); may be placed on properly constructed and accepted subgrade or previously applied layers provided the following conditions are met:

a. The subgrade or the surface upon which the hot mix is to be placed shall be free of excessive moisture.

b. The Hot Mix shall be placed in accordance with the temperature limitations listed in KYTC Standard Specifications for Road and Bridge Construction, latest edition, and only when weather conditions otherwise permit the pavement to be properly placed, compacted and finished.

5.6 Testing

5.6.1 Inspection and Acceptance

If requested by the City, for pavement installations and repairs the Contractor will then submit material testing certifications to the City. Materials are to meet the requirements found in the KYTC Standard Specifications for Road and Bridge Construction, latest edition. The following should be considered for the submittal:

1. Asphalt mix design certifications

2. Compaction: Density results shall be compliant with the KYTC Standard Specification for Road and Bridge Construction, latest edition, Section 407 and field verified. The percent voids in the total mix and the theoretical gravity of the mix should be documented as a bare minimum.

3. The City reserves to right to request any additional tests deemed necessary for acceptance.

6. STRUCTURES

6.1 Overview

This Section includes all fabricated, installed and erected structures and appurtenances related to road construction including pipes, culverts, headwalls, box culverts, box and slab bridges and retaining walls.

6.2 Reference Specifications

Unless modified by these specifications, all structure materials and construction requirements shall conform to the "Standard Specifications for Road and Bridge Construction" published by the Kentucky Department of Transportation (KYTC), latest edition.

6.3 Pipe Culverts and Storm Sewers

All pipe culverts, side drains and storm sewers shall be furnished and installed in accordance with the KYTC Standard Specifications, latest edition, and the KYTC Standard Drawings.

Within the Public Right-of-Way
Culverts (pipe) that will be within the road right-of-way shall be reinforced concrete pipe (RCP) as per ASTM C76 with a minimum inside diameter of fifteen (15) inches, with the specific size to be determined by the developer's Engineer as part of a drainage study. This shall apply for drains under driveways also.

Outside the Public Right-of-Way
Pipe manufactured from corrugated metal pipe may only be used outside of the road right-of-way. Plastic and metal pipe may enter the back side of a road drainage structure provided it extends away from the road right-of-way and not under the road pavement.

6.3.1 Concrete Pipe
Concrete Pipe shall be reinforced rigid pipe Class III ASTM C76 and shall be round, oval or flat based as shown on the approved plans

6.3.2 Corrugated Metal Pipe
Corrugated metal pipe shall be zinc-coated galvanized iron or steel pipe conforming to ASTM A929 and ASTM A760. Metal Pipe shall be coated to prevent corrosion.

6.3.3 Pipe Bedding
Pipe bedding shall be granular stone, requiring a minimum of six (6) inches of granular stone below the pipe to fit the lower part of the pipe exterior for at least ten (10) percent of its overall height. Pipe shall be properly backfilled. Plastic pipes of any type will require a soil certification and confirmation of a full stone envelope backfill in any area upstream of a road or proposed building area.

6.3.4 Pipe Sizes
Normal pipe sizes readily available from suppliers may be used to satisfy drainage requirements. Pipes shall be sized by a professional engineer, and in no case shall minimum pipe size for side drains and storm sewers be less than fifteen (15) inches in diameter.

6.3.5 Pipe Cover
Pipes located within the roadway shall be designed to provide a minimum of one (1) foot of cover over the pipe based upon the sub-grade elevations. Additional cover depth over the pipe will be required based upon:

(a) If the KYTC Standard Drawings require more than one (1) foot of cover for the pipe type to be installed.

(b) If the manufacturer's requirements require more cover then the design and installation shall bein accordance with those additional cover requirements.

6.4 Pipe Culvert Headwalls

Pipe culvert headwall treatments may be precast or cast-in-place concrete and are required for all pipe locations within the road right-of-way or outside of the right-of-way. Pipe culvert headwalls shall comply with the requirements of KYTC's Standard Specifications for Road and Bridge Construction, latest edition.

6.5 Storm Drainage Structures

Storm drainage structures consist of junction boxes, drop inlets, catch basins and manholes which may be constructed as precast concrete sections or cast-in-place concrete. Storm drainage structures shall comply with the requirements of KYTC's Standard Specifications for Road and Bridge Construction, latest edition.

Inlet and outlet pipes shall extend through the walls of structures a sufficient distance to make connections but shall be cut flush with the inside surfaces of the box structure.

All structures shall have a minimum of eight (8) inches of stone bedding. The stone bedding shall be placed one (1) foot beyond each side of the structure.

6.6 Road Curbs and Gutters

City Standard Details for curbs and curb & gutters are shown in the standard drawings section ofthese regulations.

7. TRAFFIC SIGNS AND MARKINGS

This chapter describes general traffic signing and striping design requirements for use on roads in the City. All design, installation and operation of signing and striping shall be in conformancewith this section and the latest editions of the Manual on Uniform Traffic Control Devices (MUTCD) and the Kentucky Department of Transportation (KYTC) Standard Specifications for Roadand Bridge Construction.

7.1 Signing-General

The City will make the final determination regarding the type and location of signing controls withinthe right-of-way. These controls shall include traffic control signs (regulatory and warning), road name signs, delineators, and permanent barricades.

7.2 Design, Installation, and Maintenance

Because the City will maintain the permanent traffic control devices on public rights-of- way, all traffic control devices shall be fabricated and installed in accordance with this chapter and the latest edition of the MUTCD.

7.3 Sight Visibility Standards for Traffic Control Signs

These standards are to provide for placement and configuration of City roads such that adequate sightdistance is provided for traffic control signs.

7.4 New Road Signing

Permanent signing, unless otherwise approved by the City, shall be completely in place before any new road is opened to the public.

7.5 Other Standards

These Standards are to be used in conjunction with other applicable City requirements and regulations. The City may allow the installation of decorative posts and sign frames. In these cases,the developer, homeowners' association or other responsible entity shall be responsible for the maintenance of these special installations. Decorative traffic supports shall be the color as required by the City. Additional replacement signage shall be purchased and provided to the City for replacement of damaged signs in the future. The number of these should be coordinated with the Public Works Department.

7.6 Sign Posts, Supports, and Mountings

Sign posts and their foundations and sign mountings shall be constructed to hold signs in a proper and permanent position, to resist swaying in the wind or displacement by vandalism per KYTC Standard Specifications for Road and Bridge Construction, latest edition.

7.7 Sign Reflectivity

All traffic control signs must be fabricated with reflective materials as specified in the MUTCD. All reflective materials must qualify as High Intensity Grade for all signs except those signs for schools and

pedestrians. For these signs, Diamond Grade sheeting shall be used. All signs or traffic control devices must have a minimum seven (7) year materials warranty.

7.8 Sign Blanks

Aluminum blanks of 0.080 gauges are standard, except for signs larger than 36 x 36 inches, which shall be 0.100 or 0.125-gauge aluminum.

7.9 Pavement Marking and Striping - General

7.9.1 Type and Location of Striping and Markings
The City shall make the final determination in regard to the type and location of pavement striping and marking within the right-of-way.

7.9.2 Design, Installation, and Maintenance
The City maintains the permanent pavement striping and marking on public rights-of-way after completion of the warranty period. All such devices shall be specified and installed in accordance with these Standards; all designs shall be in accordance with these Standards and the latest revision of the MUTCD and KYTC Specifications.

7.9.3 New Road
Permanent striping and marking, unless otherwise approved by the City, shall be completely in place before any new road is opened to the public. For roads opened to traffic prior to final surfacing and striping, temporary painted traffic markings shall be installed to permanent standards. New striping on new roads, overlays, and chip seals, etc. will require thermoplastic installations.

7.10 Pavement Markings (Symbols, Arrows, Word Markings)

7.10.1 General
The City may allow preformed thermoplastic on all pavement markings such as arrows, word markings, crosswalks, railroad crossings, school crossings, stop bars, and bike symbols.

7.10.2 Preformed Thermoplastic Specifications
The prefabricated markings described shall be 90 or 125 mils in thickness and consist of white or yellow pigmented plastic film with imbedded reflective glass spheres, uniformly distributed throughout their entire cross-sectional area per KYTC Standard Specifications for Road and Bridge Construction, latest edition. It shall be possible to affix the markings to bituminous or Portland cement concrete pavements by either a pressure sensitive precoated adhesive or a liquid contact cement. Prefabricated legends and symbols shall conform to the applicable shapes and sizes as outlined in the MUTCD.

7.10.3 Stop Bars
All stop bars shall be white and a minimum of twenty-four (24) inches wide. Stop bars shall be used at all signalized locations, selected stop sign locations, and other locations specified by the City.

7.11 Pavement Striping

All permanent striping shall conform to “Standard Specifications for Road and Bridge Construction,” published by KYTC, the latest revision except as herein amended.

7.11.1 General

a. Typical striping widths for lane lines are four (4) inches, unless otherwise noted. Double yellow centerline must have a four (4) inch minimum gap between stripes according to MUTCD.

b. Pavement. Epoxy paint shall be used for concrete pavement striping and thermoplastic shallbe used for asphalt pavement striping.

c. Layout. All striping on sealcoats shall require a layout line. Prior to striping, tabs are required for sealcoats (prior to the sealcoat process). All other conditions require spot taping.

7.11.2 Broken Line
All broken lines shall be created with 4-inch wide (minimum) white paint or thermoplastic as required.

7.11.3 Centerline
All centerline striping shall be double yellow, each four (4) inches wide, with a four (4) inch minimum gap between the two.

7.11.4 Parking Stalls
All striping for parking shall be white and four (4) inches wide. All edge lines of parking areas shall also be white and a minimum of four (4) inches wide.

7.11.5 Lane Line Extensions Through Intersections
These markings extend longitudinal lane lines to indicate turning paths through an intersection, whether single or double turn lanes. These eight (8) inches wide dotted lines are two (2) feet longwith four (4) foot gaps.

7.12 Temporary Striping

All temporary striping shall conform to "Standard Specifications for Road and Bridge Construction," latest edition, published by KYTC, the latest revision except as herein amended. Temporary striping shall be required prior to the opening of a road for travel where pavement and/or permanent striping cannot be completed due to weather and/or time constraints. Temporary striping must be coordinated and approved by the City prior to placement.

7.12.1 Specifications
Temporary striping shall be the same color and width as for permanent striping. Temporary striping shall consist of temporary striping or thermoplastic (no pavement marking "tabs" or temporary tape is allowed), depending on the pavement surface, spaced at twenty-five (25) foot intervals.

7.12.2 Time Duration Limit
Temporary striping is permitted on Collectors for no more than thirty (30) days. Temporary striping is permitted on Arterials for no more than fifteen (15) days.

7.12.3 Extensions
Extensions must be requested in writing if weather does not allow installation of permanent striping. The City will review and approve these requests.

8. DRAINAGE DESIGN

8.1 Overview

As it relates to roadways, the objective of surface drainage is to remove storm water from the traveled roadway as rapidly as possible so that traffic may move safely and efficiently. This is accomplished through careful engineering practices such as using proper cross slopes, longitudinal grades, and cross drainage structures. In the case of private development and/or subdivision design, the planning and design of the overall drainage system should be done simultaneously with the road or road layout and gradient planning and design. Where positive lot drainage is proposed, coordination of the road or road grades and the finished lot elevations must be achieved.

8.2 Requirements

These drainage design specifications are meant to supplement the City's Subdivision Regulations and the Stormwater Management Ordinance. Where certain provisions contained herein may conflict with other provisions contained in the Subdivision Regulations or the Stormwater Management Ordinance, the Subdivision Regulations and/or the Stormwater Management Ordinance shall take precedence. Supporting calculations are required to be provided with plan submittal.

8.2.1 Stormwater Management

Stormwater management systems shall be designed to accomplish the following:

a. Account for both offsite and onsite Stormwater.
b. Maintain natural topographic and watershed divides.
c. Convey Stormwater to a stream, natural channel, or other existing facility in a manner that does not cause flooding or erosion.
d. Discharge Stormwater into the natural channel by connecting the channel at natural elevations, or by discharging the Stormwater into an existing facility of sufficient capacity.

Determination of the size and capacity of an adequate Stormwater management system shall take into account the future development in the watershed or affected portions thereof.

8.2.2 Minimum Standard Design Frequencies

Minor System:

Minor Stormwater Management System (Minor System) is defined as the drainage system that is frequently used for collecting, transporting, and disposing of snowmelt, miscellaneous minor flows, and storm runoff up to the capacity of the system. The capacity should be equal to the maximum rate of runoff to be expected from the initial design storm, which has statistical frequency of occurrence of once in ten years. The minor system is sometimes termed the "convenience system," "initial system," or the "storm sewer system", and may include features ranging from curbs and gutters to storm sewer pipes and open drainage ways.

The design of the minor Stormwater management system shall at a minimum be based on a storm frequency of ten (10) years (24-hour storm). This criterion shall be applied to both closed conduit and open channel systems. However, if the ten (10) year design flow for an open channel system is greater than one hundred (100) cubic feet per second (cfs) or if it crosses a critical roadway or pedestrian passage or runs adjacent to a proposed building or area with grades susceptible to flooding, then theopen or closed system shall be capable of passing the one hundred (100) year design flow within the drainage easement.

Systems relying on sinkholes or drainage wells for discharge shall be capable of passing the one hundred (100) year design flow within the drainage easement, assuming plugged conditions (0 cfs drawdown) for the sinkhole. In this situation the design engineer of record shall provide a volume-based type analysis of the 2-100 storm events. This evaluation shall review impacted features.

Major System:

Major Stormwater Management System (Major System) is defined as the drainage system that is

critical to carry flows greater than 100 cfs or Stormwater flows for FEMA mapped conveyances. These systems should be planned to carry the runoff from a 100-year frequency storm. These systems will run, and runoff will be carried by the major system whether or not it has been planned and designed, and whether or not improvements are situated wisely in respect to it. The major system usually includes features such as streets, and major Stormwater management channels. Storm sewer systems may reduce the flow in many parts of the major system by storing and transporting water underground. Good planning and designing of a major system should eliminate major damage and loss of life from storms having a one percent chance of occurring in any given year.

Wherever possible, natural waterways serving the major system should remain undisturbed, with proposed development designed to maintain these areas. Detention should be provided to avoid discharges that exceed the capacity of natural waterways. Channelization and other related modifications to the natural waterways are discouraged. Improvements to natural open channels that are to function primarily as the major system shall be designed to pass the one hundred (100) year design flow without damage to the channel. Man-made channels designed to function as the major system shall be capable of carrying a one hundred (100) year design flow. Where man-made channels are necessary, the channels should be located as far away from buildings or structures as possible.

The development shall be designed such that no building will be flooded with a one hundred (100) year design flow even if the minor system capacity is exceeded. The one hundred (100) year frequency storm shall be used to compute runoff for the design of the onsite major Stormwater management system. This system shall be designed for areas to be graded in such a manner or buildings located or constructed in such a manner that if the capacity of the minor system is exceeded, no building will be flooded. Critical areas to consider as potential areas for flooding are sumps, relatively flat areas, and areas where buildings are located below streets or parking lots.

8.2.3 Drainage / Hydrology Calculations

Drainage/Hydrology Calculations are required as part of the Construction Plan submittal. These calculations are required to be sealed by a Kentucky registered professional engineer. Calculations and/or reports shall be bound and submitted in a neat and orderly manner.

Calculations and/or reports should conform to the requirements contained in the City Subdivision Regulations and the City Management Ordinance and should include the followingas a minimum for submittal:

a. An original or color copy of a USGS map (or the best available topographic map) with the project boundary drawn on the map. Scale one (1) inch =2000-ft.
b. Overview maps and drainage maps with topography depicting the pre-developmentdrainage areas and the post development drainage areas.
c. Summaries of findings and conclusions shall be provided in both narrative format and a tabular format.
d. Drainage area calculations to include area(s) in acres, runoff coefficients, a description of runoff calculation methods used, including rainfall intensity, and runoff (Q) used in the calculations. Calculations should be based on the Soil Conservation Service (SCS) hydrographs for the 2-100 year storms for Franklin, KY.
e. Energy Dissipation Design
f. General photographs of the site and key drainage conveyance features and streams.
g. Summary of the 10-year event high water elevations if open channel flow is present.
h. Stormwater detention calculations with tabular summary of pre-development and the post development flows. The post-development flows shall be clearly itemized to show routed-flows and by-passed flows if any. Basin design should such that the 2 through 50-year 24 hour storms post development peaks are less than the predeveloped peaks. Basins must control the outflow from the 100-year 24 hour storm.
i. Water quality calculations if required by the City of Franklin Code of Ordinances.
j. Other information as requested by the City.

8.2.4 Drainage Structures

The design life for buried drainage structures shall be a minimum of one hundred (100) years.

Drainage structures shall be designed for force effects resulting from horizontal and vertical earth pressure, pavement load, live load and vehicular dynamic load. Where buried drainage structures with inverts below the water table are used, water buoyancy loads should be taken into consideration as well. References to tables in product design manuals or calculations showing that structures meet loading force requirements should be included in supporting calculations which are to be submitted with construction plans.

Discharge from the road shall be handled by means of a catch basin/curb inlet; the number, size, and location to be determined by the drainage calculations as approved by the City Engineer.

Where water cannot be adequately discharged by surface drainage, storm sewers shall be required. Public roads are not to be used to collect and convey storm water runoff other than that which falls on a lot fronting that road. In addition, the road and drainage design shall be such that storm water runoff shall be limited to 1.0 cfs of flow across road intersections.
Culverts (pipe) that will be within the road right-of-way shall be reinforced concrete pipe (RCP) as per ASTM C76 with a minimum inside diameter of fifteen (15) inches.

The development shall be designed to provide a minimum of one (1) ft. of cover for structures based upon the sub-grade elevations. If the manufacturers requirements require more cover than the design shall be in accordance with those additional cover requirements.

8.2.5 Drainage Inlets

Drainage inlets should be designed and located to limit the spread of water on the traveled way based upon a ten (10) yr. storm event with eight (8) ft. of spread from the curb face. Inlet grates shall also be designed to accommodate bicycle and pedestrian traffic.

Catch basins/curb inlets at low points along the roads and at the end of cul-de-sacs are to be a minimum double inlet catch basins/curb inlets on each side of the road. In low points the adjustment in the curb line to facilitate a sump condition can be used. Detailed calculations should be provided by the engineer of record to show the actual spread for this condition.

8.3 Ditch Sections

Erosion Prevention and Sediment Control is a significant issue during and after construction. The DOW permitting process and the Kentucky Erosion & Sediment Control Manual serves as some the City's primary Stormwater guidelines. Adherence to these items is required at all times during the construction of ditch sections to ensure that slopes and channels will continue to function adequately. A detailed specification for velocity, surface stabilization and any required matting shall be provided by the engineer of record.

8.4 Temporary and Permanent Stabilization and Vegetation

The construction plans and the Stormwater Pollution Prevention Plan shall address temporary and permanent stabilization and vegetation requirements and specifications. Timeframes, notes and details shall be included as a minimum. The developer and/or the contractor are required to apply the initial applications, provide maintenance and repairs and to re-apply applications as many times as necessary to accomplish stabilization and vegetation to the satisfaction of the City.

8.5 Detention / Retention Basins

Stormwater detention is required to protect downstream properties from flood increases due to upstream development. The design is required to control peak flow at the outlet of a site such that post-development peak flows are equal to or less than pre-development peak flows for each of the two (2) year, five (5) year, ten (10) year, twenty-five (25)-year, fifty (50) year and one hundred (100) year design storms. The next two downstream structure must be capable of passing these storms.

The release rate from any detention facility is to be designed to be equivalent to or less than that of the

site prior to the proposed development for the two (2) year, five (5) year, ten (10) year, twenty-five (25)-year and one hundred (100) year design storms, with emergency overflow capable of handling at least the one hundred (100) year discharge.

Detention systems must be constructed during the first phase of developments to eliminate damage to adjacent properties during construction. In this regard, the detention systems shall be designed to function as temporary sediment traps and cleaned out to proper volumes before completion. If siltation has occurred, detention systems must be restored to their design dimensions after construction is complete.

A Kentucky Registered Engineer must certify in writing to the City that the detention facilities are constructed in substantial accordance with the design documents. The Certification shall be based upon field-run survey data obtained at the completion of construction. Photographs and a copy of the as-built survey shall be provided with the certification.

8.6 Best Management Practices (BMPs)

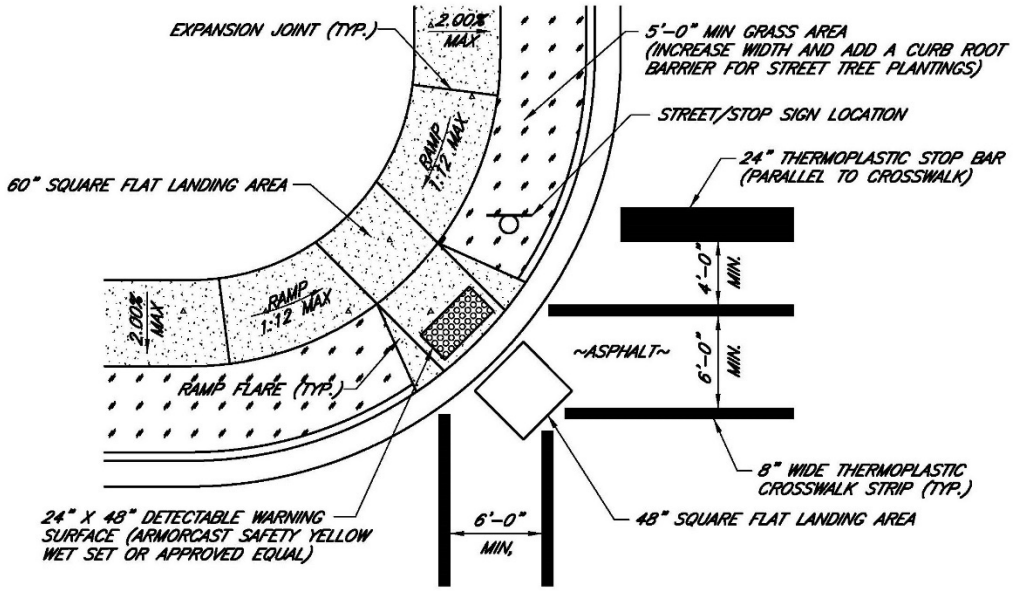
KYDOW and various counties and municipalities have compiled a Best Management Practices for Stormwater Management. These resources are readily available, many of which can be directly accessed through various websites. Those BMP's are designed to assist contractors, developers, and various businesses and industries to comply with the guidelines set forth by the National Pollution Discharge Elimination System (NPDES) Phase II Rule. Those BMP's should serve as the major tool to ensure that appropriate erosion prevention and sediment control (EPSC) installation, maintenance and repairs are followed during the design and construction of development, subdivision and road construction projects. These Practices shall be in accordance with the City Stormwater Management Ordinance.

8.7 Inspection and Observations

It is the developer's responsibility to make sure that the developer's contractor or his representatives are familiar these design requirements and shall review the construction in sufficient detail to confirm that the construction is as specified. Inspection and observations by the developer shall occur as frequently as necessary to assure that the construction conforms to the plans and specifications. Inspection and observations shall be by qualified technical personnel experienced in the inspection of similar facilities and projects.

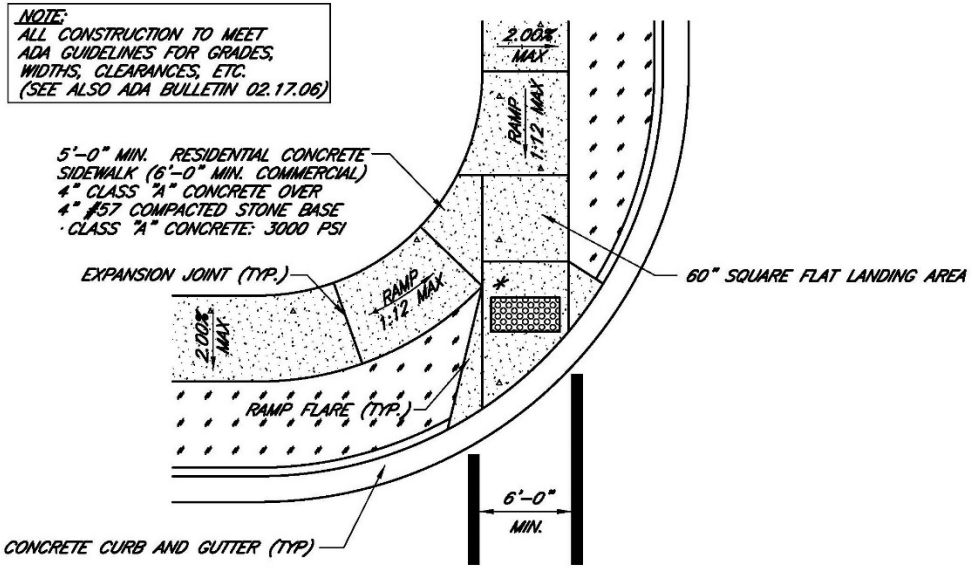
As noted elsewhere in these standards, the developer is responsible for any other fees and/or costs charged by the City or any utility or agency for permits and/or inspections and testing related to the project.

Standard detail drawings for use in construction of facilities within subdivisions within the City of Franklin follow hereinafter.

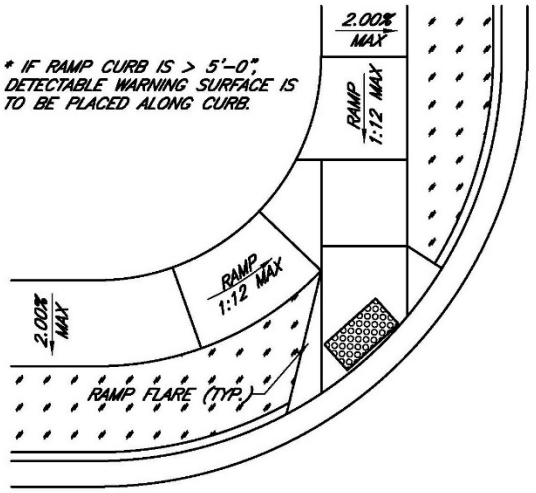


UNIDIRECTIONAL LOCATION

NOTE:
ALL CONSTRUCTION TO MEET ADA GUIDELINES FOR GRADES, WIDTHS, CLEARANCES, ETC. (SEE ALSO ADA BULLETIN 02.17.06)



SINGLE DIRECTION LOCATION



* SINGLE DIRECTION LOCATION

PLANS
N.T.S

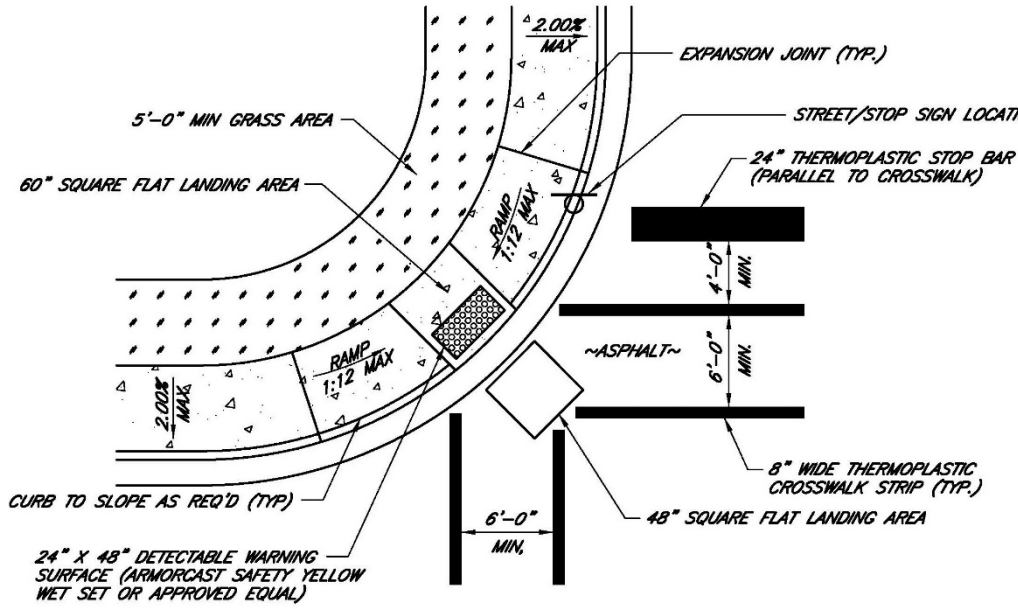
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

ACCESSIBLE RAMP LOCATIONS
DETAIL (1)

CHECKED BY: RMJ
DRAWN BY: BME

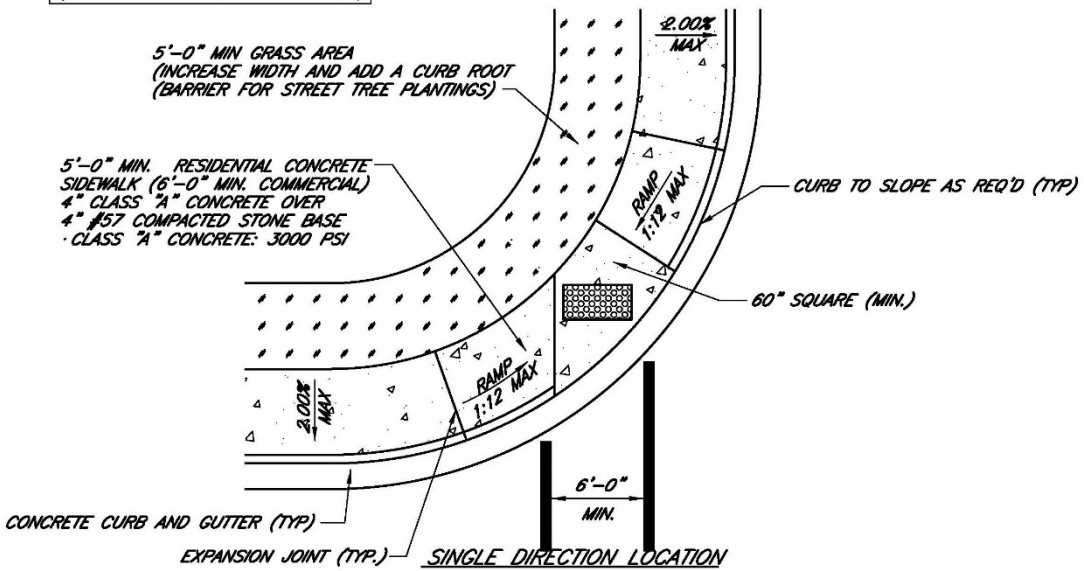
SCALE:
NTS

DRAWING NO.
ADA-1
REVISION DATE:
4/21



UNIDIRECTIONAL LOCATION

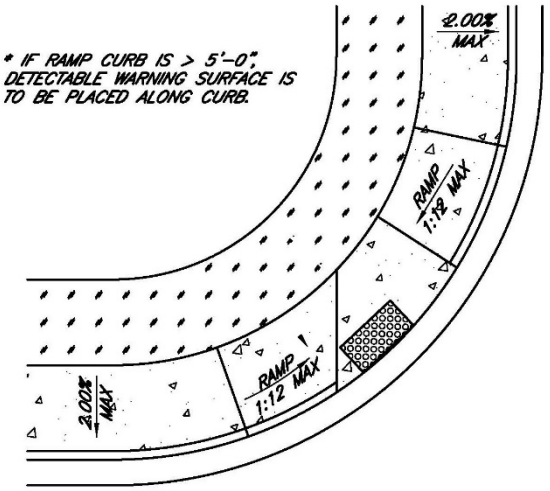
NOTE:
ALL CONSTRUCTION TO MEET ADA GUIDELINES FOR GRADES, WIDTHS, CLEARANCES, ETC. (SEE ALSO ADA BULLETIN 02.17.06)



SINGLE DIRECTION LOCATION

PLANS
N.T.S

* IF RAMP CURB IS > 5'-0", DETECTABLE WARNING SURFACE IS TO BE PLACED ALONG CURB.



* SINGLE DIRECTION LOCATION

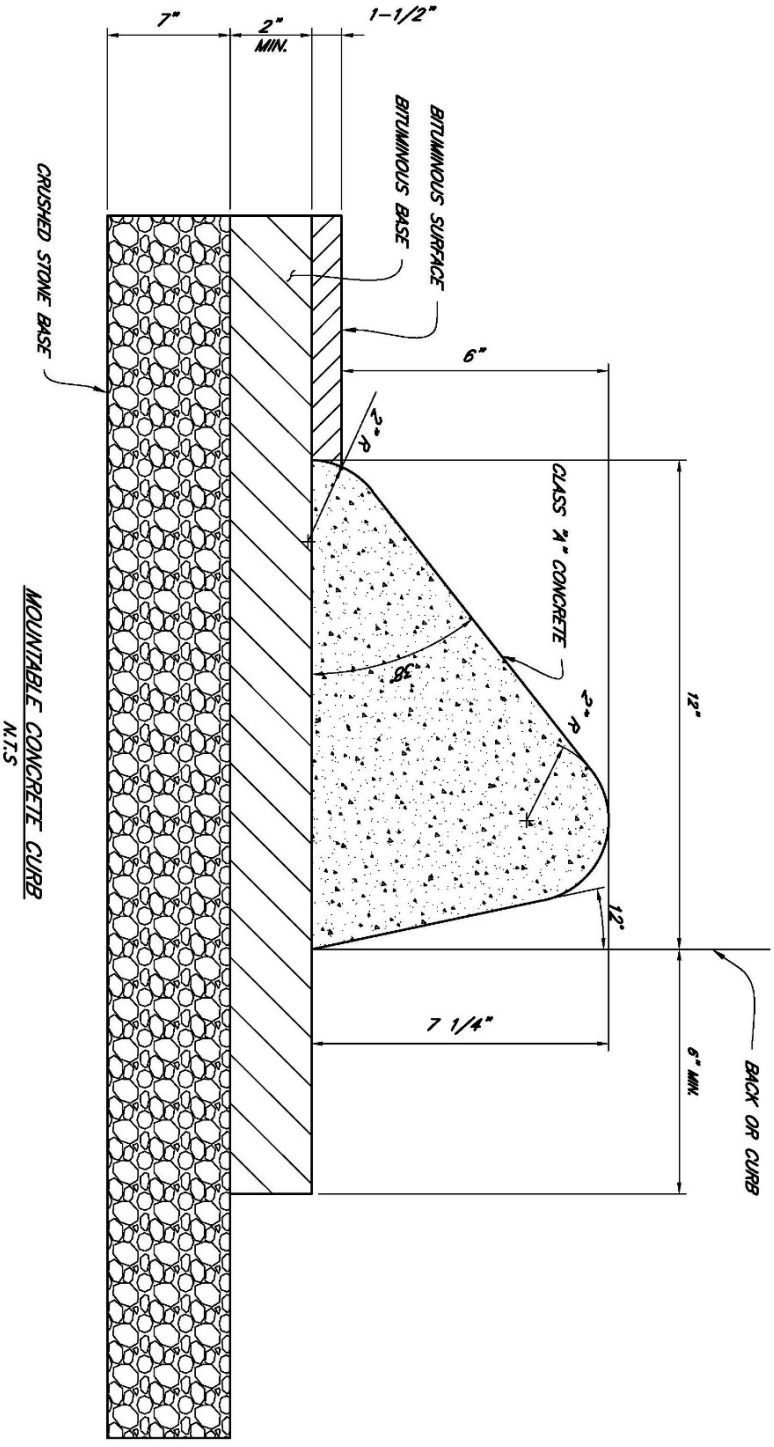
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

ACCESSIBLE RAMP LOCATIONS
DETAIL (2)

CHECKED BY: RMJ
DRAWN BY: BME

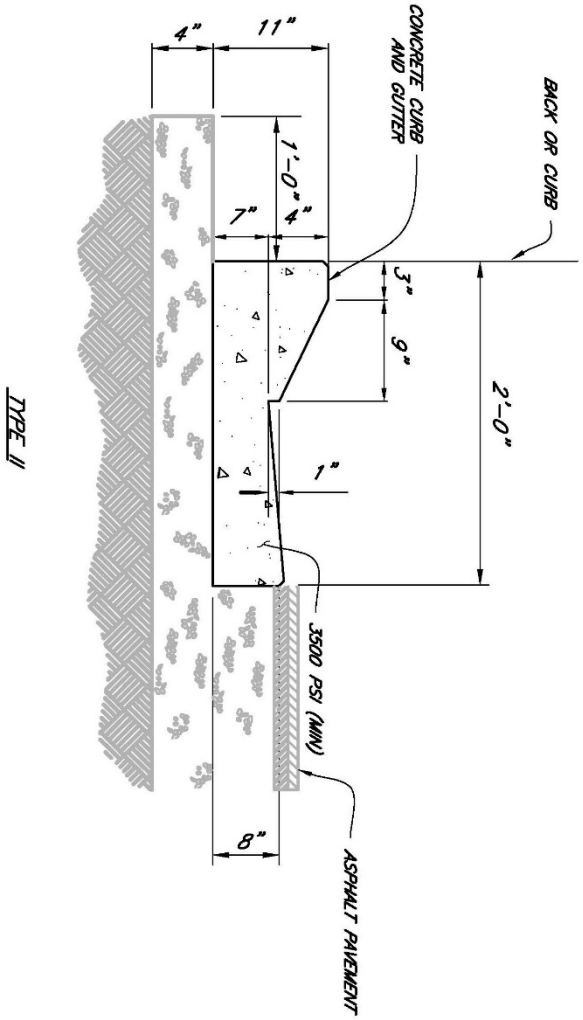
SCALE:
NTS

DRAWING NO.
ADA-2
REVISION DATE:
1/22

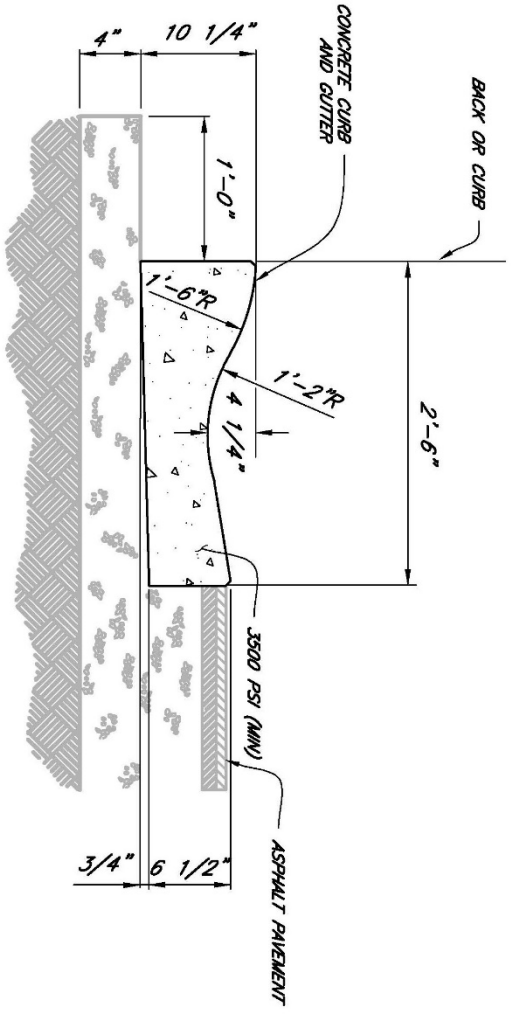


MOUNTABLE CONCRETE CURB
N.T.S

DRAWING NO. C-1 REVISION DATE: 4/21	SCALE: NTS	CHECKED BY: RMJ DRAWN BY: BME	MOUNTABLE CONCRETE CURB DETAIL		CITY OF FRANKLIN SUBDIVISION REGULATIONS 117 WEST CEDAR STREET FRANKLIN, KY 42134

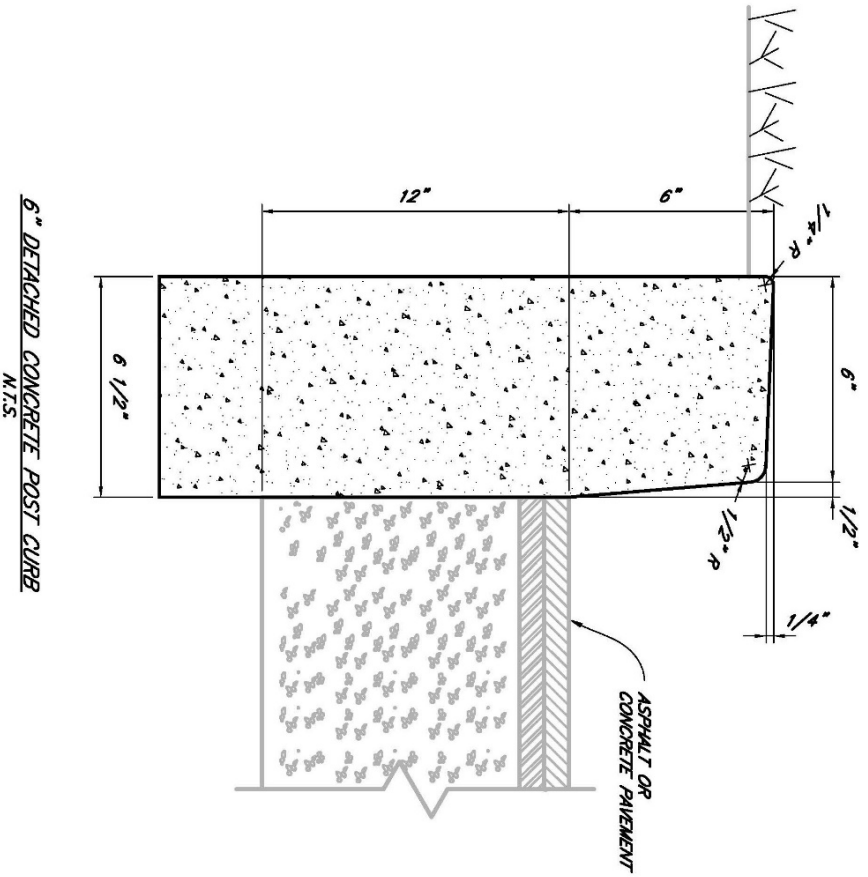


TYPE II



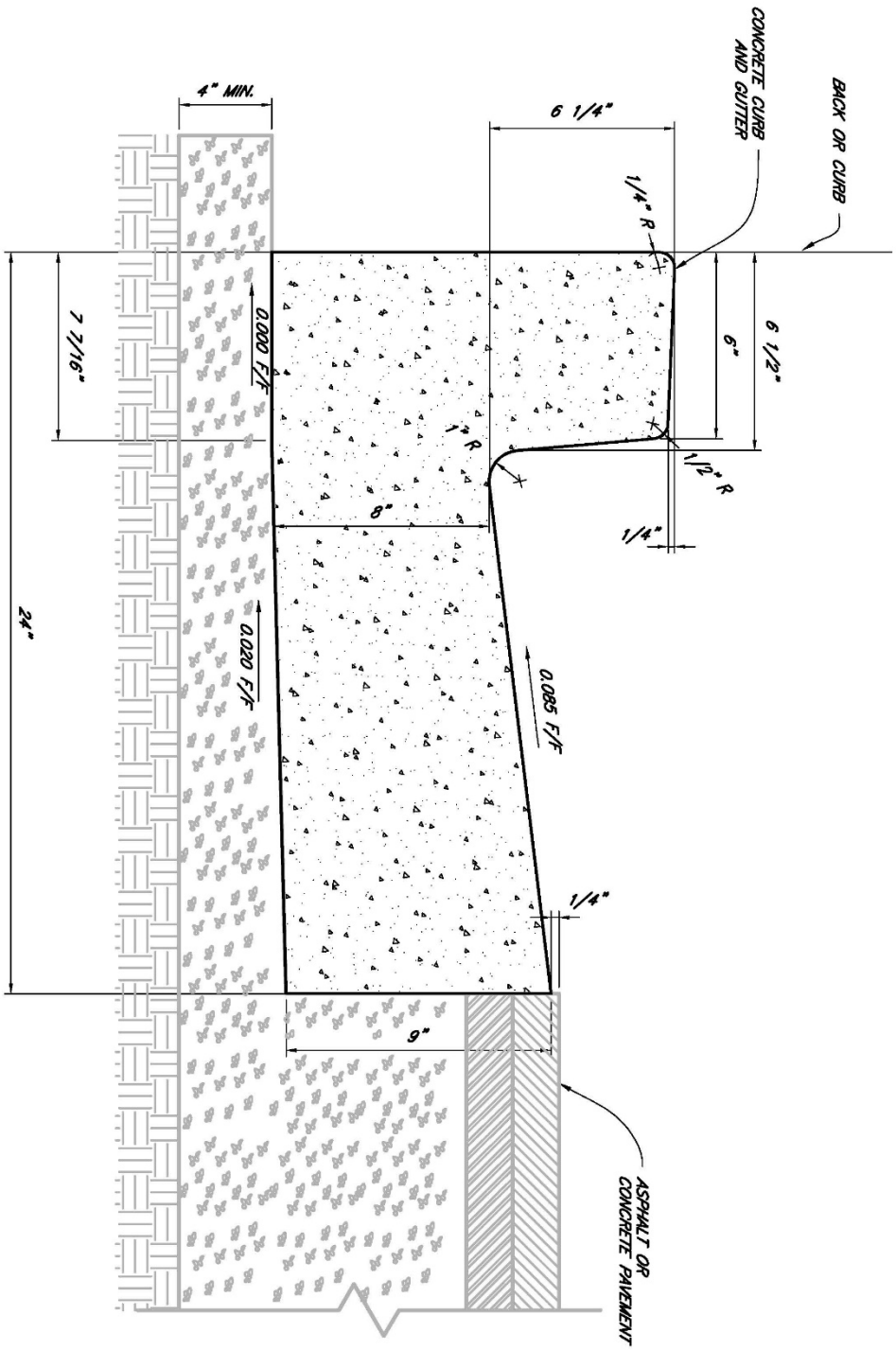
TYPE I

CITY OF FRANKLIN SUBDIVISION REGULATIONS 117 WEST CEDAR STREET FRANKLIN, KY 42134	ROLL OVER CURB & GUTTER FOR SUBDIVISION ROAD DETAIL	CHECKED BY: RMJ DRAWN BY: BME	SCALE: NTS	DRAWING NO. C-2 REVISION DATE: 4/21



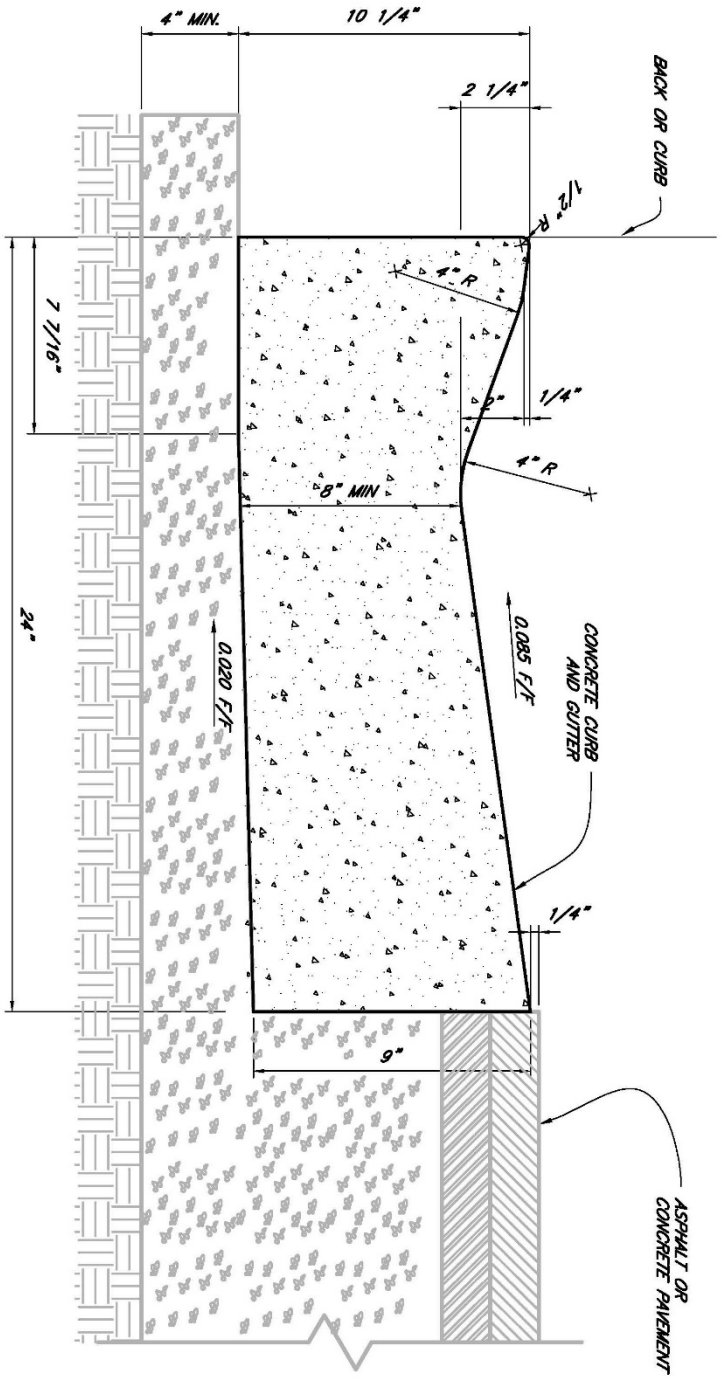
6" DETACHED CONCRETE POST CURB
N.T.S.

DRAWING NO. C-3 REVISION DATE: 4/21	SCALE: NTS	CHECKED BY: RMJ DRAWN BY: BME	6" DETACHED CONCRETE POST CURB DETAIL	CITY OF FRANKLIN SUBDIVISION REGULATIONS 117 WEST CEDAR STREET FRANKLIN, KY 42134



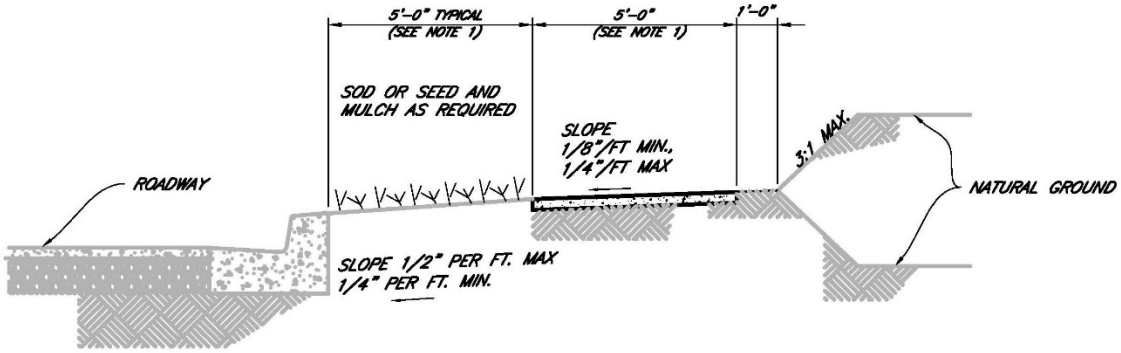
6" CONCRETE COMBINED CURB AND GUTTER DETAIL
N.T.S.

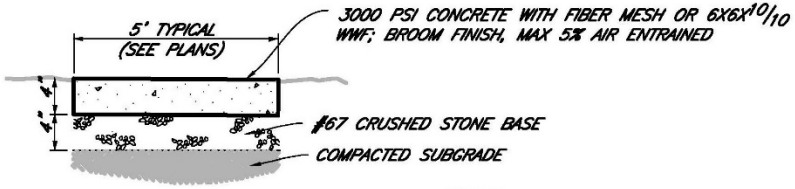
DRAWING NO. C-4 REVISION DATE: 4/21	SCALE: NTS	CHECKED BY: RMJ DRAWN BY: BME	6" CONCRETE COMBINED CURB AND GUTTER DETAIL	CITY OF FRANKLIN SUBDIVISION REGULATIONS 117 WEST CEDAR STREET FRANKLIN, KY 42134



6" LOWERED CONCRETE CURB AND GUTTER
N.T.S.

DRAWING NO. C-5 REVISION DATE: 4/21	SCALE: NTS	CHECKED BY: RMJ DRAWN BY: BME	6' LOWERED CONCRETE CURB AND GUTTER DETAIL	CITY OF FRANKLIN SUBDIVISION REGULATIONS 117 WEST CEDAR STREET FRANKLIN, KY 42134





SIDEWALK
N.T.S

NOTES:

1. DIMENSIONS MAY VARY. CONSULT PLANS TO VERIFY WIDTH OF R.O.W.
2. CONTROL JOINT EVERY 5', EXPANSION JOINT EVERY 25', UNLESS OTHERWISE NOTED. THIS DETAIL IS FOR SIDEWALK TO BE CONSTRUCTED A MIN. OF 5' FROM TRAFFIC AREA.
3. SEE ACCESSIBLE RAMP DETAIL (2) FOR ALTERNATE LOCATION.

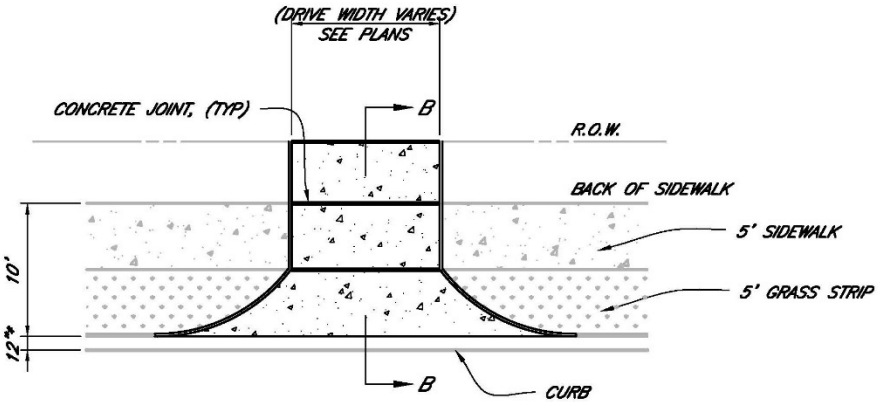
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

SIDEWALK DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
C-6
REVISION DATE:
1/22

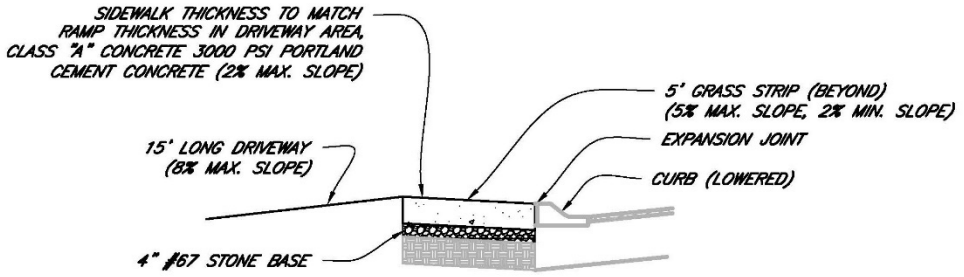


* VARIES WITH CURB TYPE.

PLAN
N.T.S

NOTE:

1. SEE ACCESSIBLE RAMP DETAIL (2) FOR ALTERNATE LOCATION.



SECTION B–B

- 6" – RESIDENTIAL
- 8" – COMMERCIAL AND INDUSTRIAL

* 6" AND 8" CONCRETE RAMP WITH WWF 6x6x$^{6}/_{6}$
4000 PSI CONCRETE

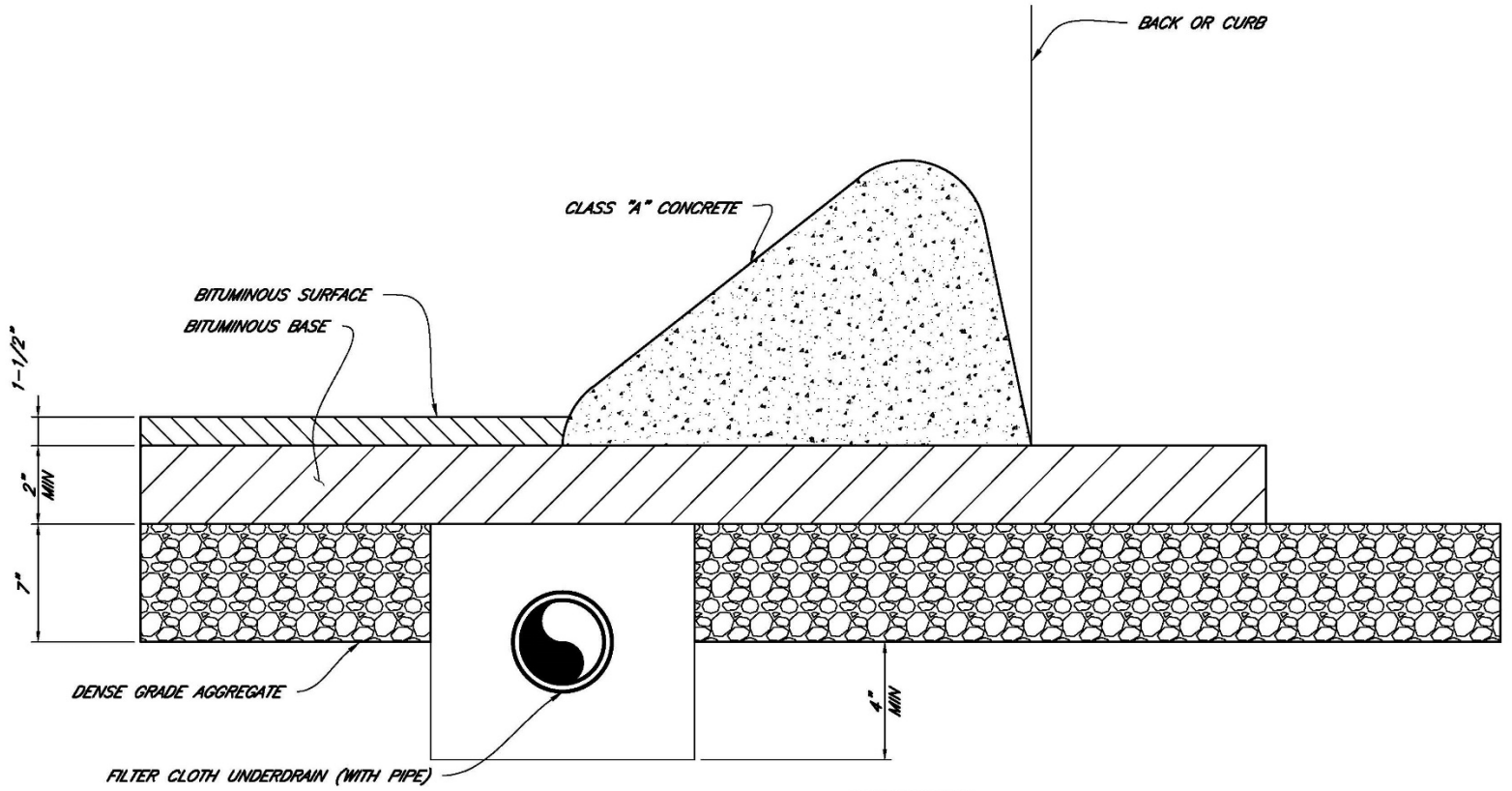
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

DRIVEWAY RAMP DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

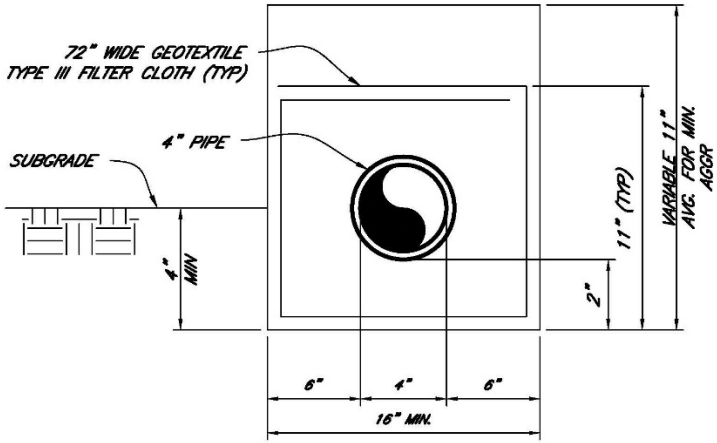
DRAWING NO.
C–7
REVISION DATE:
1/22



UNDERDRAIN
N.T.S

NOTE:

1. FOR ADDITIONAL DETAILS SEE KYTC STANDARD DRAWINGS.



FILTER CLOTH UNDERDRAINS (WITH PIPE)
N.T.S

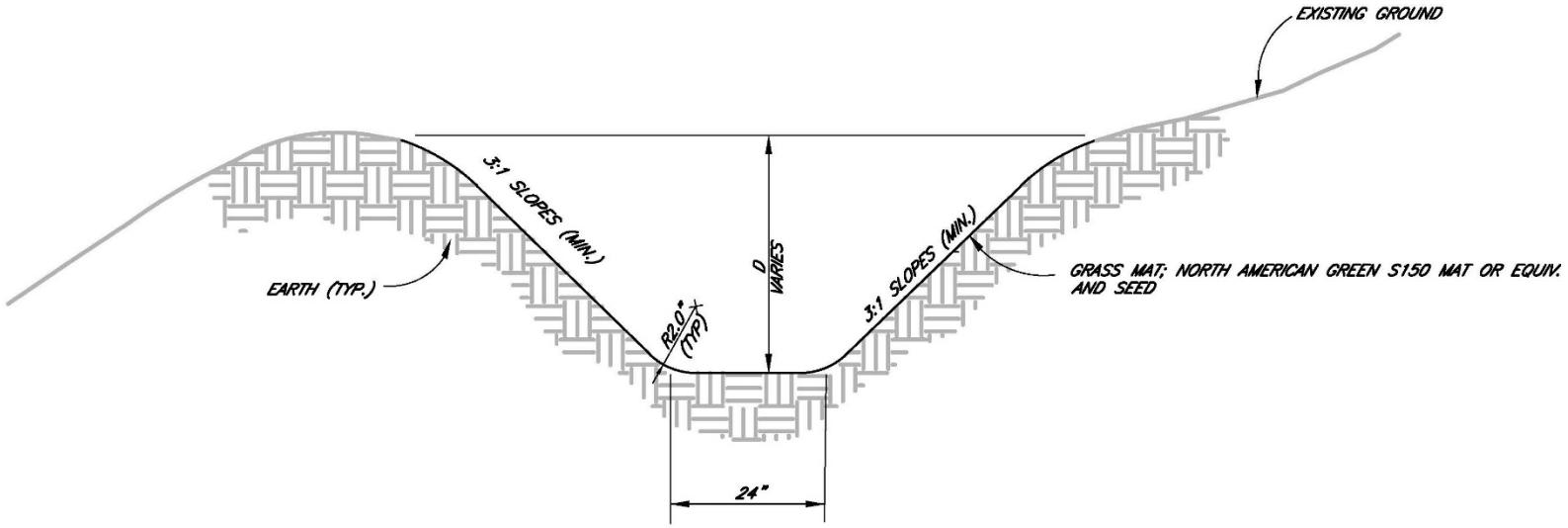
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

UNDERDRAINS WITH PIPE DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
C-8
REVISION DATE:
4/21



D = DEPTH

GRASS DITCH SECTION
N.T.S

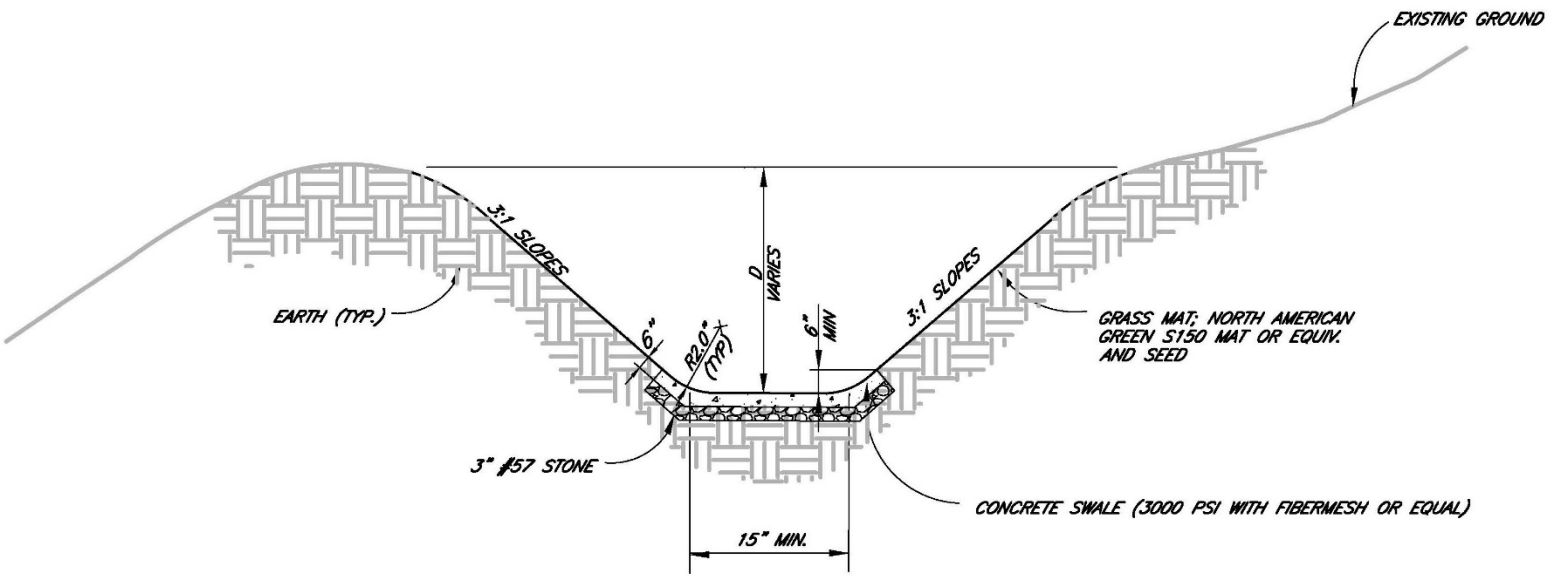
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

GRASS DITCH SECTION DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
D-1
REVISION DATE:
4/21



D = DEPTH

NOTES:

1. TIE BACK SLOPE TO BE GRADED AND SEEDED AT 3:1 ABOVE THE MINIMUM DEPTH REQUIRED BY THE DITCH SCHEDULE.
2. CONSTRUCTION JOINT CONCRETE AT 5' O.C.

CONCRETE DITCH SECTION
N.T.S

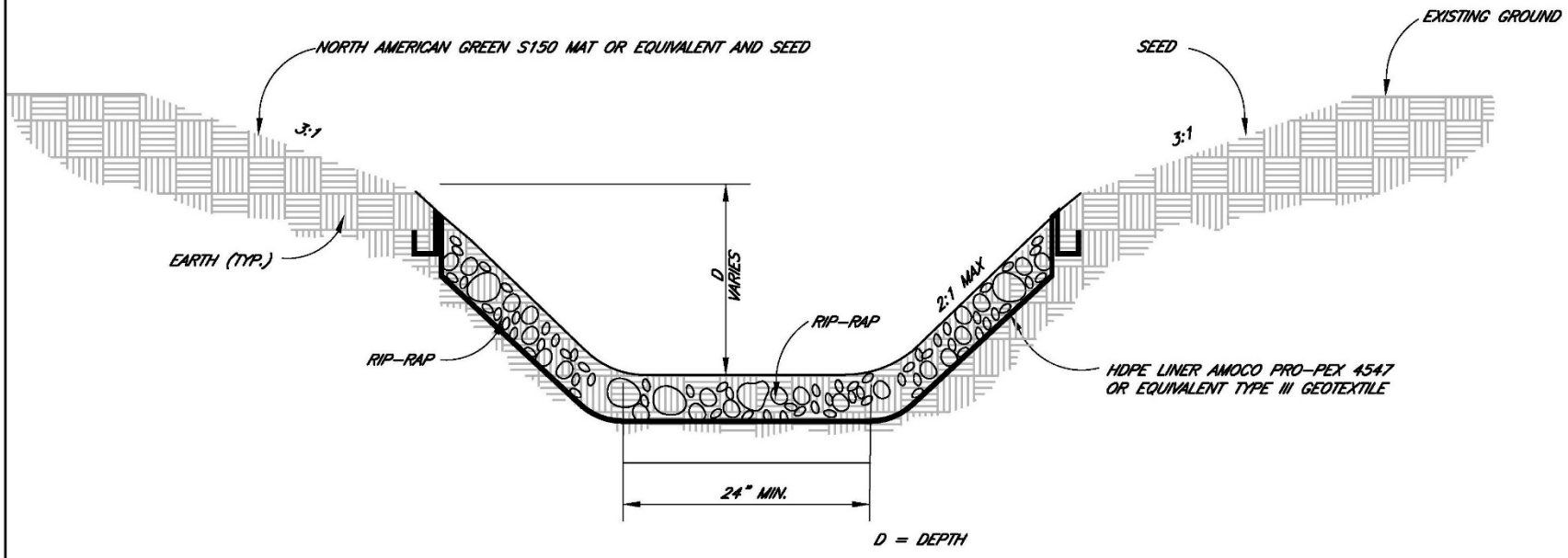
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

CONCRETE DITCH SECTION DETAIL

CHECKED BY: RWJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
D-2
REVISION DATE:
4/21



DITCH SECTION WITH RIP-RAP
N.T.S

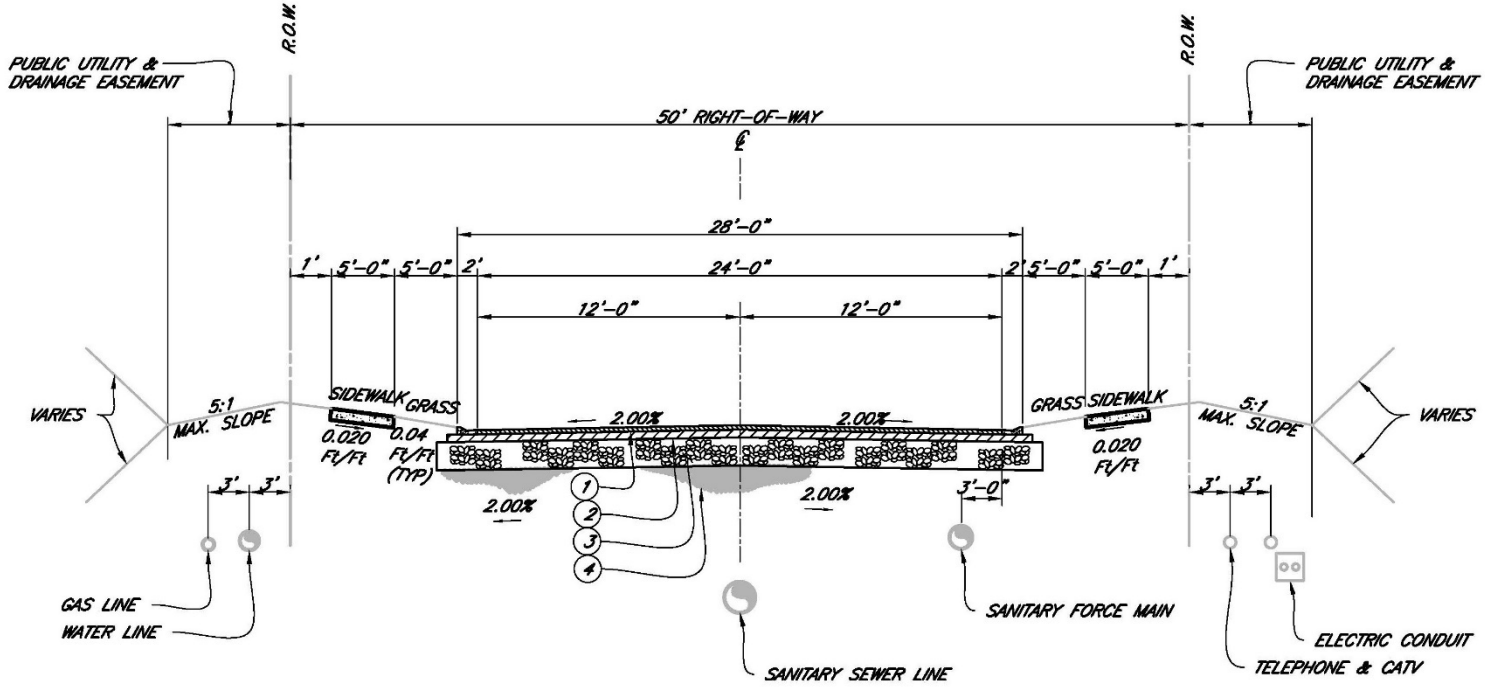
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

DITCH SECTION WITH RIP-RAP DETAIL

CHECKED BY: RWJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
D-3
REVISION DATE:
4/21



MINOR ROAD
(LOCAL ROADS AND RESIDENTIAL SUBDIVISIONS)
N.T.S

ROAD LEGEND:

1. 1 1/2" CL3 ASPHALT SURFACE 0.38D PG64-22
   TACK COAT (SS-1)
2. 2 1/2" CL3 ASPHALT BASE 1.00D PG64-22
   PRIME COAT (RS-2)
3. 6" DENSE GRADE AGGREGATE
4. COMPACTED SUBGRADE
5. SEE ACCESSIBLE RAMP DETAIL (2) FOR ALTERNATE LOCATION.

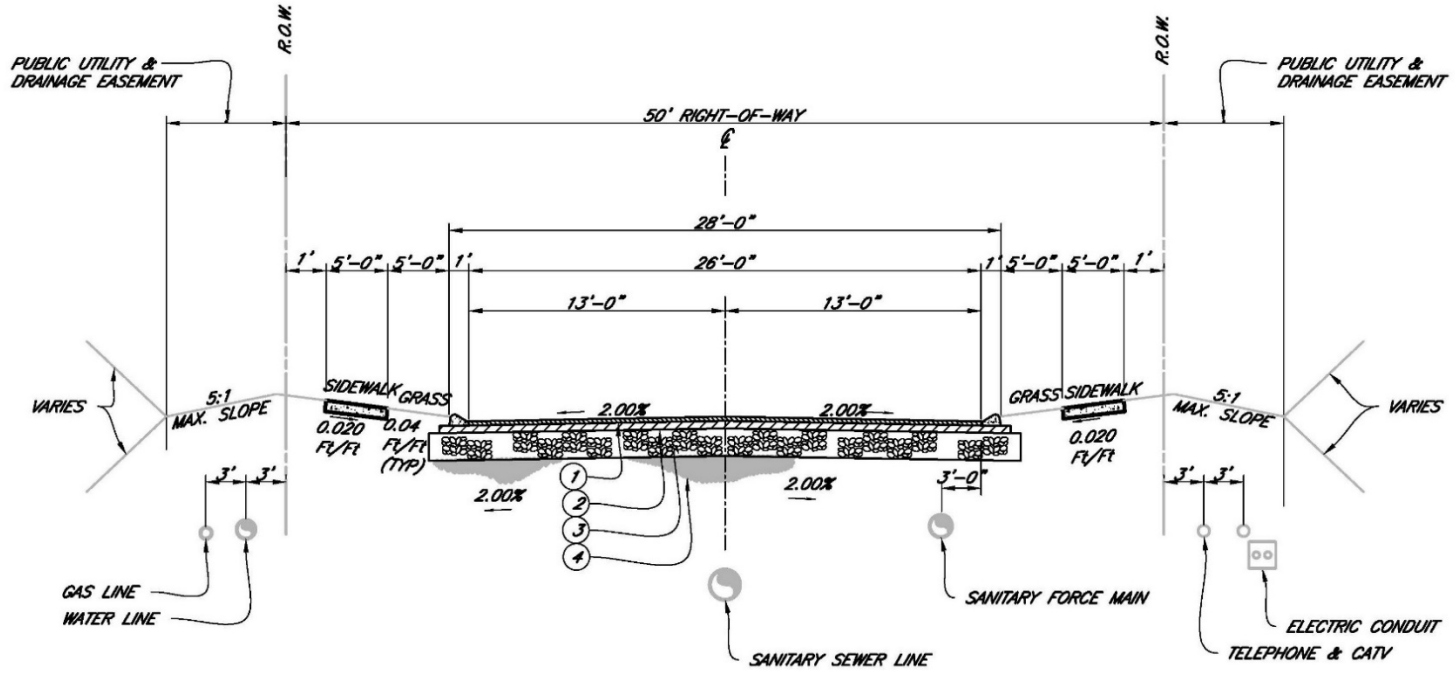
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

MINOR ROAD CURB SECTION DETAIL
ROLLOVER CURB AND GUTTER

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
S-1
REVISION DATE:
1/22



MINOR ROAD
(LOCAL ROADS AND RESIDENTIAL SUBDIVISIONS)
N.T.S

ROAD LEGEND:

1. 1 1/2" CL3 ASPHALT SURFACE 0.38D PG64-22
   TACK COAT (SS-1)
2. 2 1/2" CL3 ASPHALT BASE 1.00D PG64-22
   PRIME COAT (RS-2)
3. 6" DENSE GRADE AGGREGATE
4. COMPACTED SUBGRADE
5. SEE ACCESSIBLE RAMP DETAIL (2) FOR ALTERNATE LOCATION.

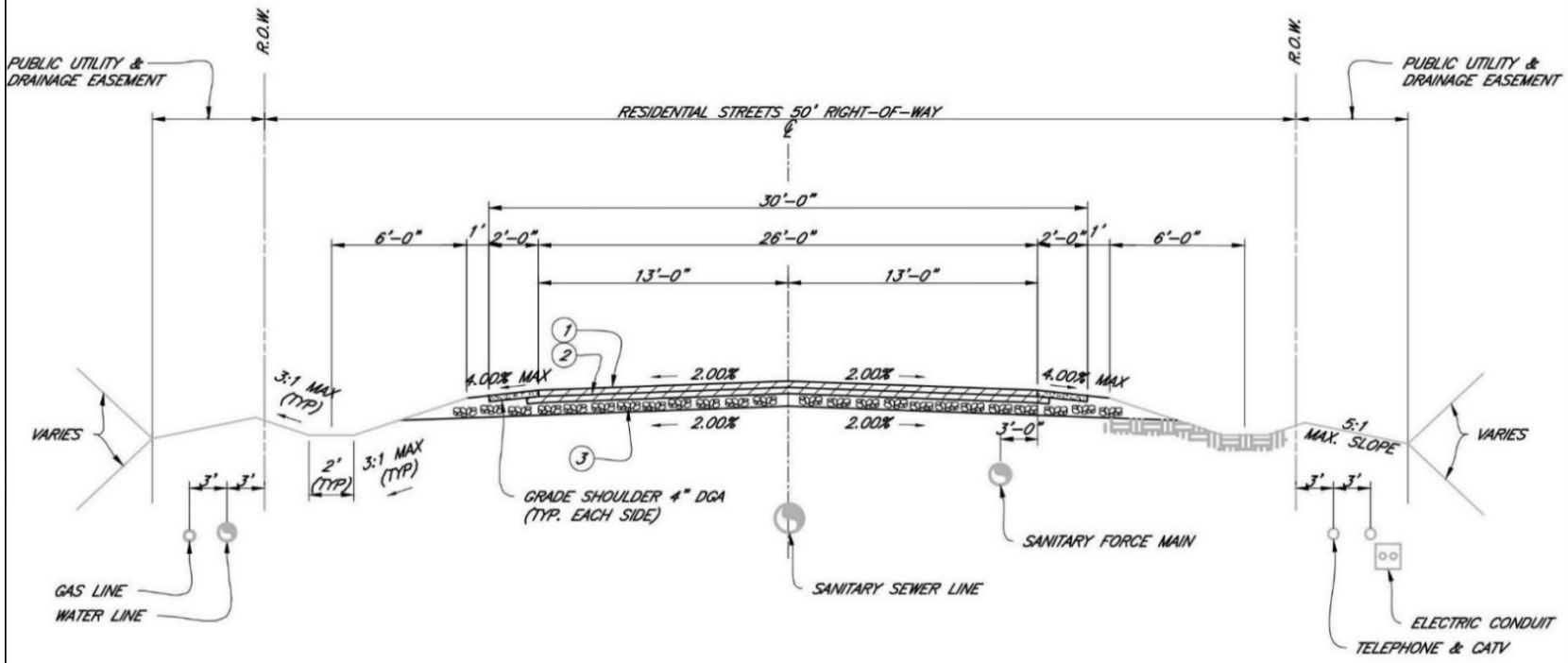
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

MINOR ROAD CURB SECTION DETAIL
MOUNTABLE CURB

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
S-2
REVISION DATE:
1/22



* DITCH SECTION MUST BE APPROVED AT THE CONCEPT PLAN STAGE FOR RESIDENTIAL DEVELOPMENTS.

MINOR ROAD
(LOCAL ROAD OR RESIDENTIAL SUBDIVISIONS)
DITCH ROADWAY SECTION
N.T.S

ROAD LEGEND:

1. 1 1/2" CL3 ASPHALT SURFACE 0.38D PG64-22
   TACK COAT (SS-1)
2. 2 1/2" CL3 ASPHALT BASE 1.00D PG64-22
   PRIME COAT (RS-2)
3. 6" DENSE GRADE AGGREGATE
4. COMPACTED SUBGRADE

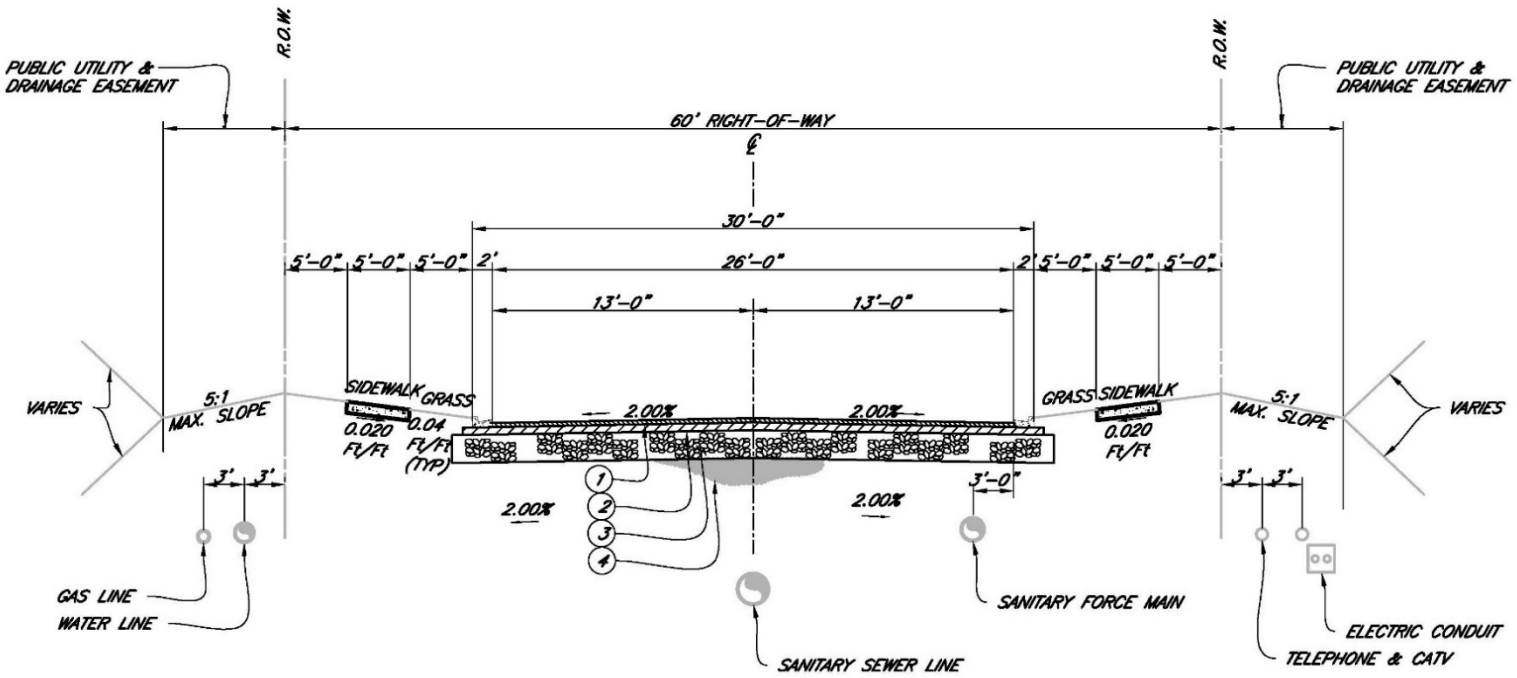
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

MINOR ROADWAY DITCH SECTION DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
S-3
REVISION DATE:
4/21



ROAD LEGEND:

1. 2" CL3 ASPHALT SURFACE 0.38D PG64-22
   TACK COAT (SS-1)
2. 3" CL3 ASHALT BASE 1.0D PG64-22
   PRIME COAT (RS-2)
3. 8" DENSE GRADE AGGREGATE
4. COMPACTED SUBGRADE
5. SEE ACCESSIBLE RAMP DETAIL (2) FOR ALTERNATE LOCATION.

* A COLLECTOR BETWEEN TWO STATE ROUTES WITH KYTC SURFACE MIX WILL ALSO BE REQUIRED TO HAVE KYTC SURFACE MIX.

* GRASS STRIP TO BE 10' WHERE TREE PLANTING IS REQUIRED.

RESIDENTIAL MAJOR COLLECTOR AND COMMERCIAL ROAD
N.T.S

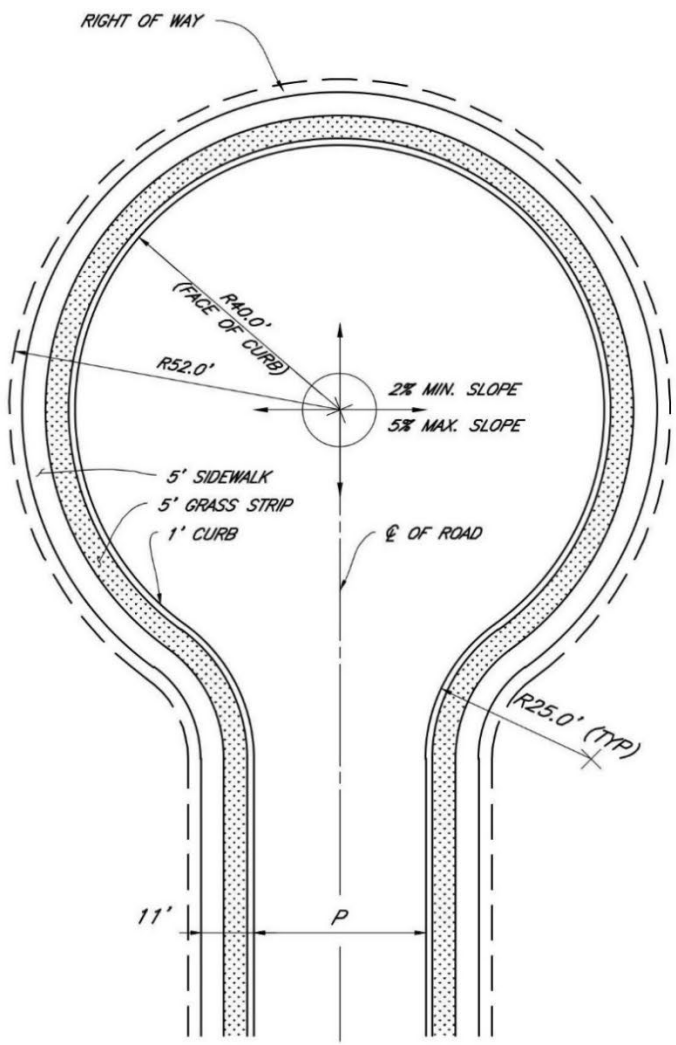
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

COLLECTOR ROAD SECTION DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

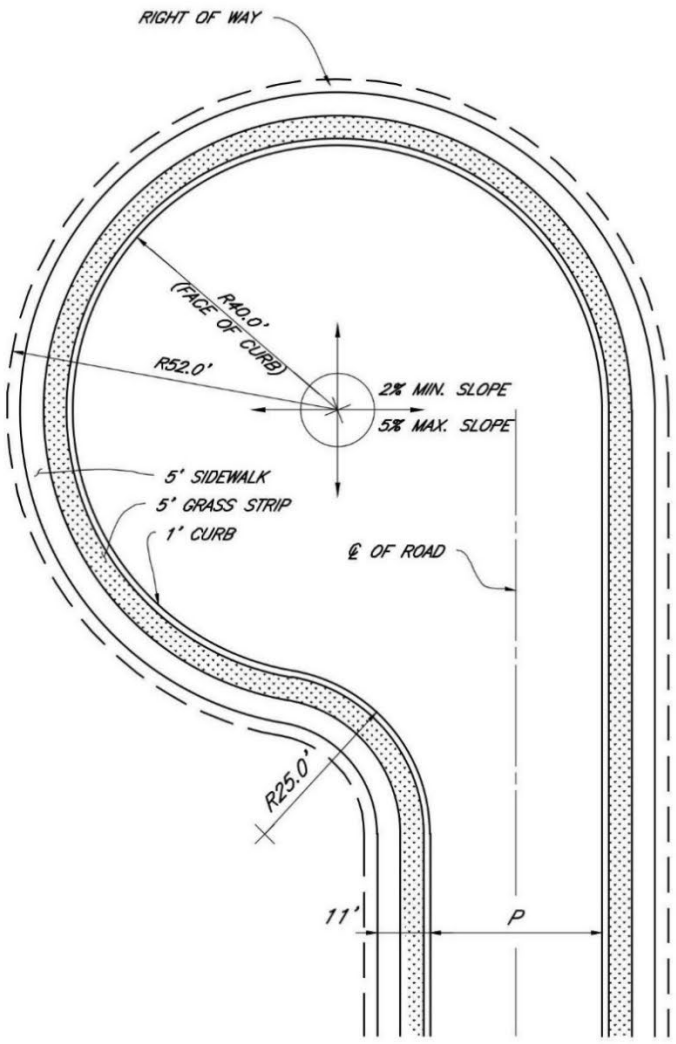
SCALE:
NTS

DRAWING NO.
S-4
REVISION DATE:
1/22



P = PAVEMENT WIDTH

CUL-DE-SAC
N.T.S



P = PAVEMENT WIDTH

CUL-DE-SAC
N.T.S

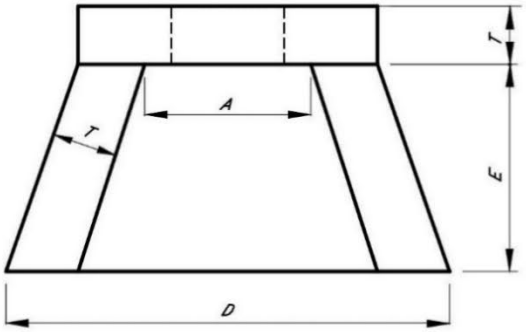
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

CUL-DE-SAC DETAIL

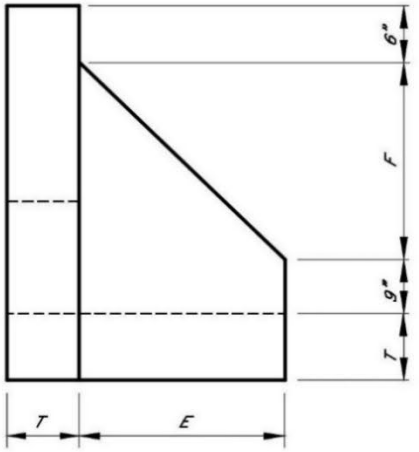
CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

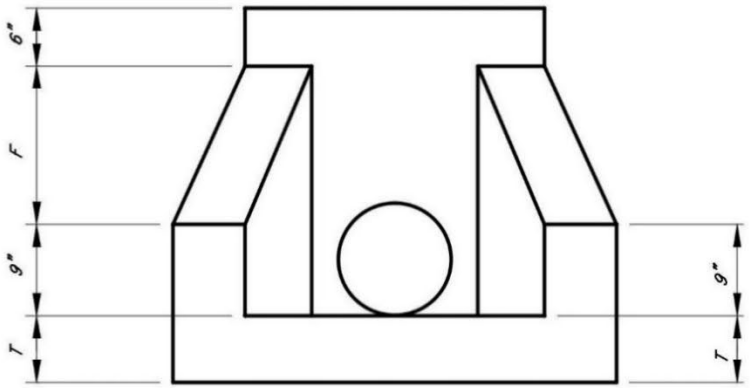
DRAWING NO.
S-5
REVISION DATE:
4/21



TOP VIEW



SIDE VIEW



FRONT VIEW

TABLE OF DIMENSIONS					
PIPE SIZES	A	D	E	F	T (MIN.)
15"	2'-6"	5'-0"	2'-6"	1'-9"	6"
18"	2'-6"	5'-0"	2'-6"	1'-9"	6"
21"	2'-6"	5'-0"	2'-6"	1'-9"	6"
24"	4'-0"	6'-6"	3'-0"	3'-3"	6"
30"	4'-0"	6'-6"	3'-0"	3'-3"	6"
36"	5'-6"	8'-0"	3'-6"	4'-5"	6"
42"	5'-6"	8'-0"	3'-6"	4'-5"	6"
48"	5'-6"	8'-0"	3'-6"	4'-5"	6"
54"	7'-0"	9'-5"	4'-6"	5'-9"	6"
60"	7'-0"	9'-5"	4'-6"	5'-9"	6"
66"	8'-6"	11'-0"	5'-6"	6'-11"	6"
72"	8'-6"	11'-0"	5'-6"	6'-11"	6"

NOTES:

1. CONCRETE SHALL BE CLASS "A" MIXED, PLACED, FORMED, AND FINISHED IN ACCORDANCE WITH SECTION 604 AND 611 OF KYTC. STANDARD SPECIFICATIONS. REINFORCED WITH #4 BARS 10" C/C EACH WAY, WITH WINGS AND TOE SLAB DOWELLED TO HEADWALL WITH #5 BARS.
2. 3/4" CHAMFER ON ALL EXPOSED EDGES.

CONCRETE HEADWALL
N.T.S

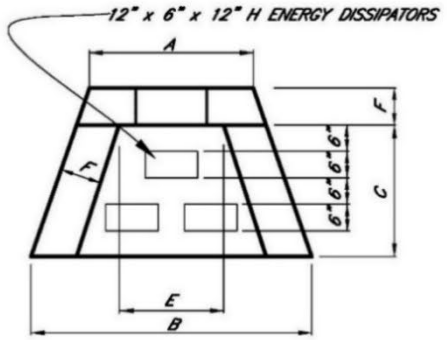
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

PRECAST CONCRETE HEADWALL DETAIL

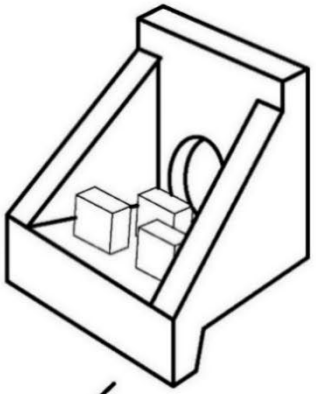
CHECKED BY: RMJ
DRAWN BY: BME

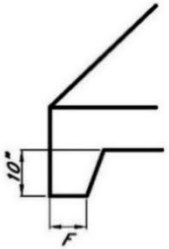
SCALE:
NTS

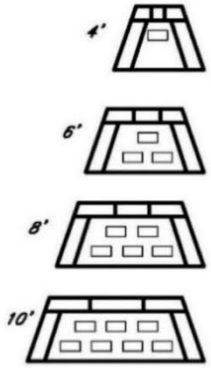
DRAWING NO.
ST-1
REVISION DATE:
4/21

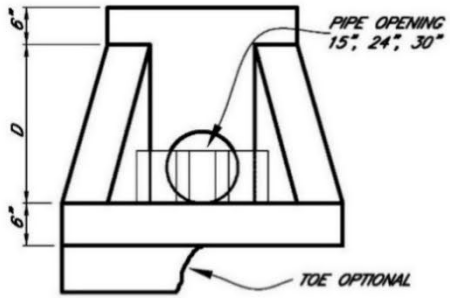


TOP VIEW









FRONT VIEW

TABLE OF DIMENSIONS				
SIZE	4'	6'	8'	10'
A	32"	48"	72"	96"
B	48"	72"	96"	120"
C	30"	44"	50"	56"
D	25"	36"	52"	66"
E	24"	36"	59"	83"
F	NA	8"	8"	8"
MAX. OPG.	18"	26"	40"	60"
WT./ft	1090	3130	5625	8575

PRECAST CONCRETE HW WITH DISSIPATORS
N.T.S

NOTES:

1. CONCRETE SHALL BE CLASS "A" MIXED, PLACED, FORMED, AND FINISHED IN ACCORDANCE WITH KYTC. STANDARD SPECIFICATIONS. REINFORCED WITH #4 BARS 10" C/C EACH WAY, SLAB DOWELLED TO HEADWALL WITH #5 BARS.
2. FORM WORK AND ALL STRUCTURAL EXCAVATION AND BACK FILL SHALL BE PROVIDED AND / OR PERFORMED IN ACCORDANCE WITH KYTC SPECIFICATIONS.
3. 3/4" CHAMFER ON ALL EXPOSED EDGES.

CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

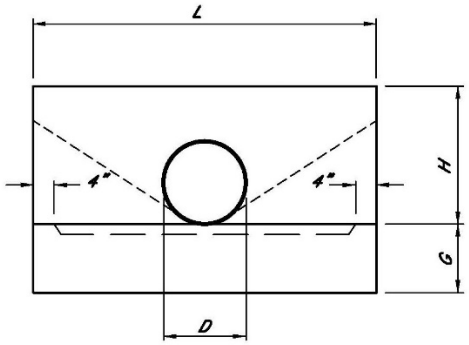
PRE-CAST CONCRETE HEADWALL
WITH ENERGY DISSIPATORS DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
ST-2
REVISION DATE:
4/21

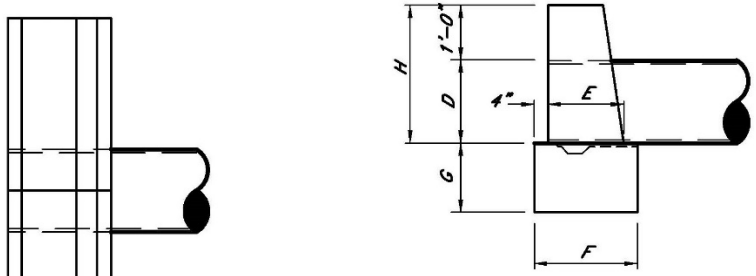
TABLE OF DIMENSIONS					
PIPE SIZES	L	H	E	F	G
12"	3'-6"	2'-0"	1'-2"	1'-9"	1'-2"
15"	4'-0"	2'-3"	1'-3"	1'-10"	1'-2"
18"	4'-0"	2'-6"	1'-3"	1'-11"	1'-3"
24"	6'-0"	3'-0"	1'-4"	2'-0"	1'-4"
30"	8'-0"	3'-6"	1'-6"	2'-2"	1'-6"
30"X42"	8'-0"	4'-0"	1'-6"	2'-2"	1'-6"
36"	8'-0"	5'-0"	1'-8"	2'-6"	1'-6"



FRONT ELEVATION

NOTES:

1. CONCRETE SHALL BE CLASS "A" MIXED, PLACED, FORMED, AND FINISHED IN ACCORDANCE WITH KYTC STANDARD SPECIFICATIONS. REINFORCED WITH #4 BARS 10" C/C EACH WAY WITH, SLAB DOWELED TO HEADWALL WITH #5 BARS.
2. FORMWORK AND ALL STRUCTURAL EXCAVATION AND BACK FILL SHALL BE PROVIDED AND / OR PERFORMED IN ACCORDANCE WITH KYTC SPECIFICATIONS.
3. 3/4" CHAMFER ON ALL EXPOSED EDGES.



END ELEVATION

PLAN

FLAT CONCRETE HEADWALL
N.T.S

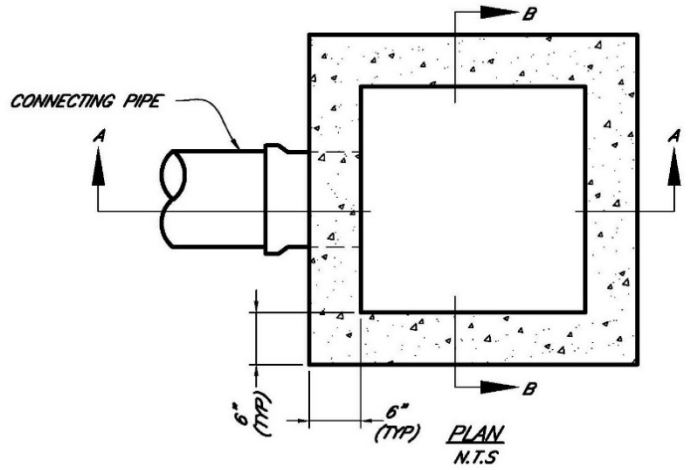
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

FLAT HEADWALL DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

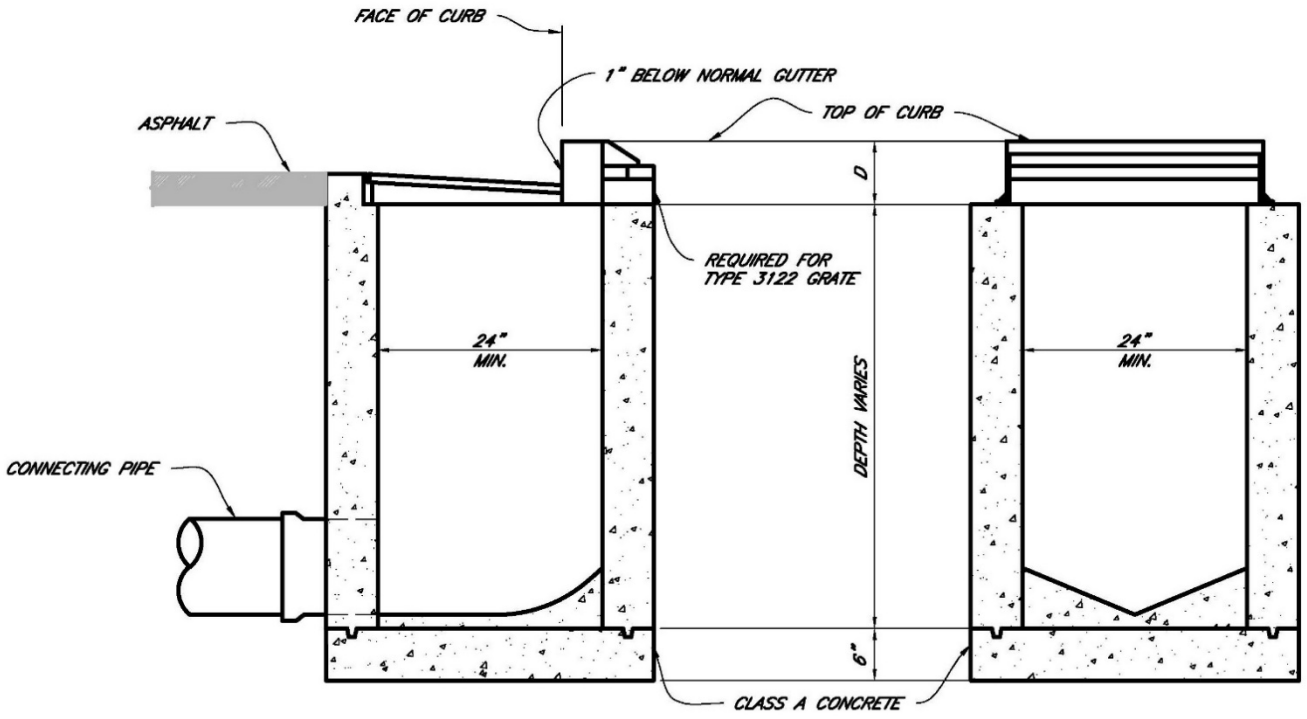
DRAWING NO.
ST-3
REVISION DATE:
4/21



PLAN
N.T.S

NOTES:

1. CASTING FOR STANDARD CURB AND GUTTER SHOWN USE JOHN BOUCHARD & SONS CO. OR APPROVAL EQUALS. ADJUST CURB GRATE PER CONCRETE CURB TYPE.
2. CONCRETE=4,000 PSI AT 28 DAYS REINFORCED WITH #4, GRADE 60 BARS.
3. STEPS SHALL BE INSTALLED IN INLETS OVER 2' IN DEPTH.
4. ALL GRATES SHALL BEAR THE ENVIRONMENTAL STATEMENT "DUMP NO WASTE. DRAINS TO RIVER" WITH DIRECTIONAL ARROW POINTING IN THE FLOW DIRECTION.



SECTION A–A

SECTION B–B

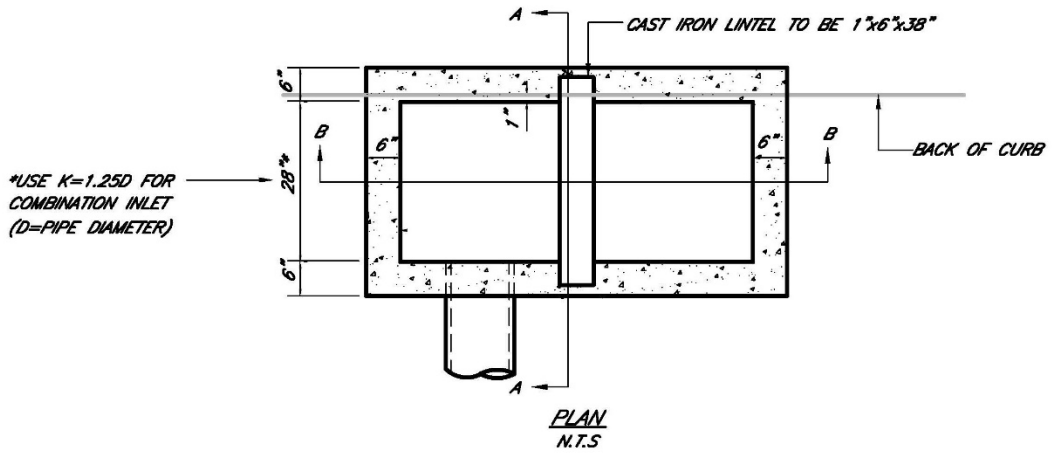
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

SINGLE PRE–CAST INLET BASIN
DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

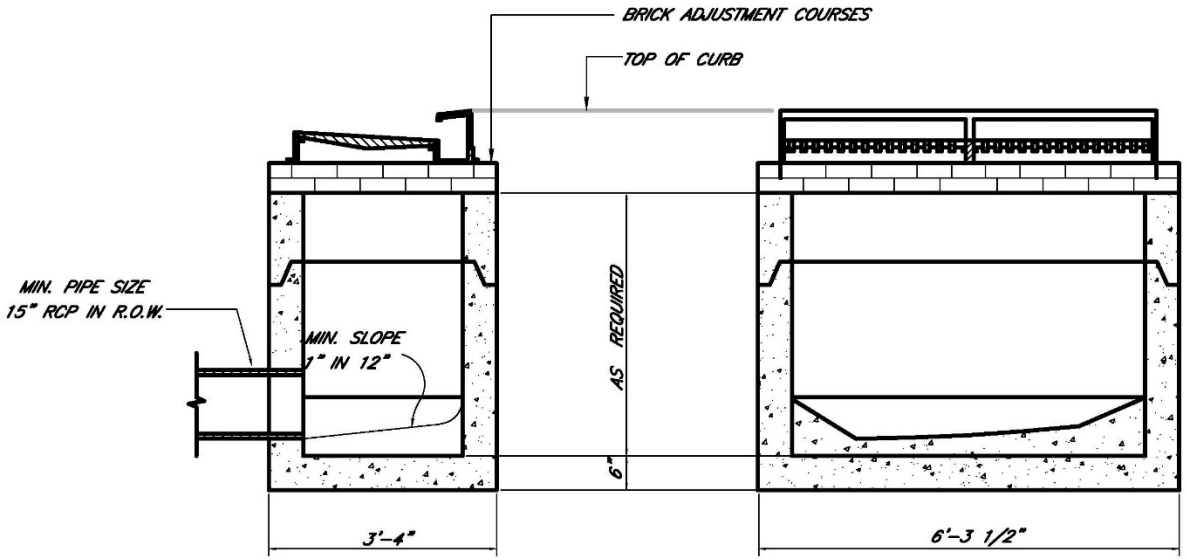
DRAWING NO.
ST–4
REVISION DATE:
4/21



PLAN
N.T.S

NOTES:

1. CASTING FOR STANDARD CURB AND GUTTER SHOWN USE JOHN BOUCHARD & SONS CO. OR APPROVAL EQUALS. ADJUST CURB GRATE PER CONCRETE CURB TYPE.
2. CONCRETE=4,000 PSI AT 28 DAYS REINFORCED WITH #4, GRADE 60 BARS.
3. STEPS SHALL BE INSTALLED IN INLETS OVER 2' IN DEPTH.
4. ALL GRATES SHALL BEAR THE ENVIRONMENTAL STATEMENT "DUMP NO WASTE. DRAINS TO RIVER" WITH DIRECTIONAL ARROW POINTING IN THE FLOW DIRECTION.



SECTION A-A

SECTION B-B

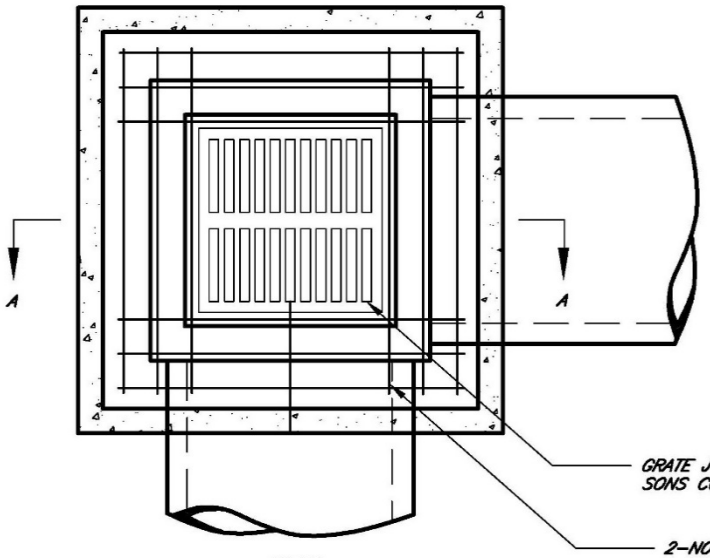
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

DOUBLE PRE-CAST INLET BASIN DETAIL

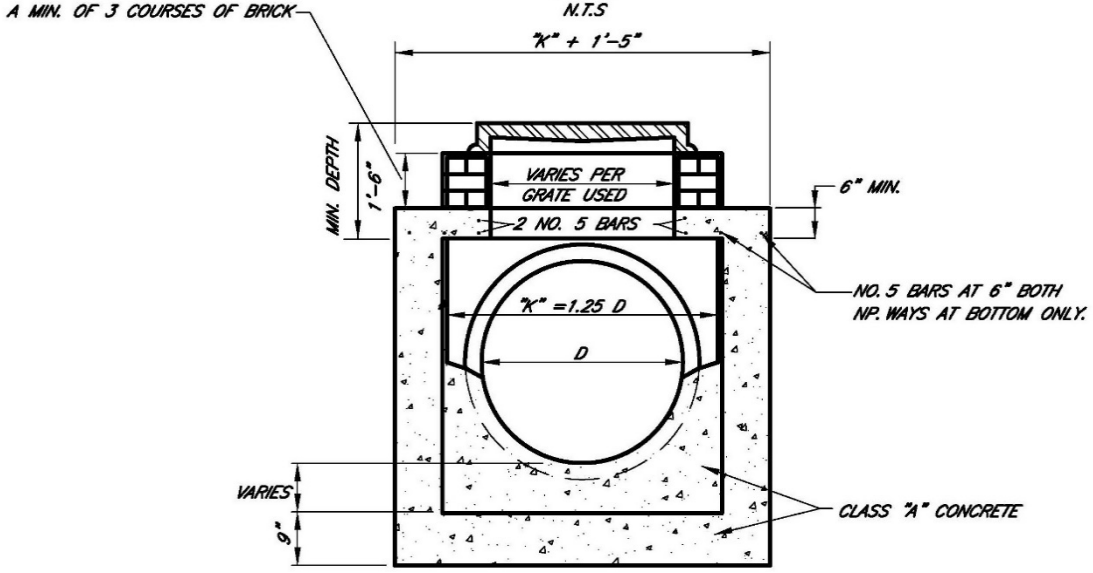
CHECKED BY: RWJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
ST-5
REVISION DATE:
4/21



PLAN
N.T.S



SECTION A-A

TABLE OF DIMENSIONS	
PIPE	"K"=1.25 D (Min)
30"	3'-2"
36"	3'-9"
42"	4'-5"
48"	5'-0"
54"	5'-8"
60"	6'-3"

NOTES:

1. STEPS SHALL BE INSTALLED IN INLETS OVER 2' IN DEPTH.
2. ALL GRATES SHALL BEAR THE ENVIRONMENTAL STATEMENT "TO CREEK" WITH DIRECTIONAL ARROW POINTING IN THE FLOW DIRECTION.
3. FRAME AND GRATE SHOWN ARE FOR FLUSH MOUNTED INLET.

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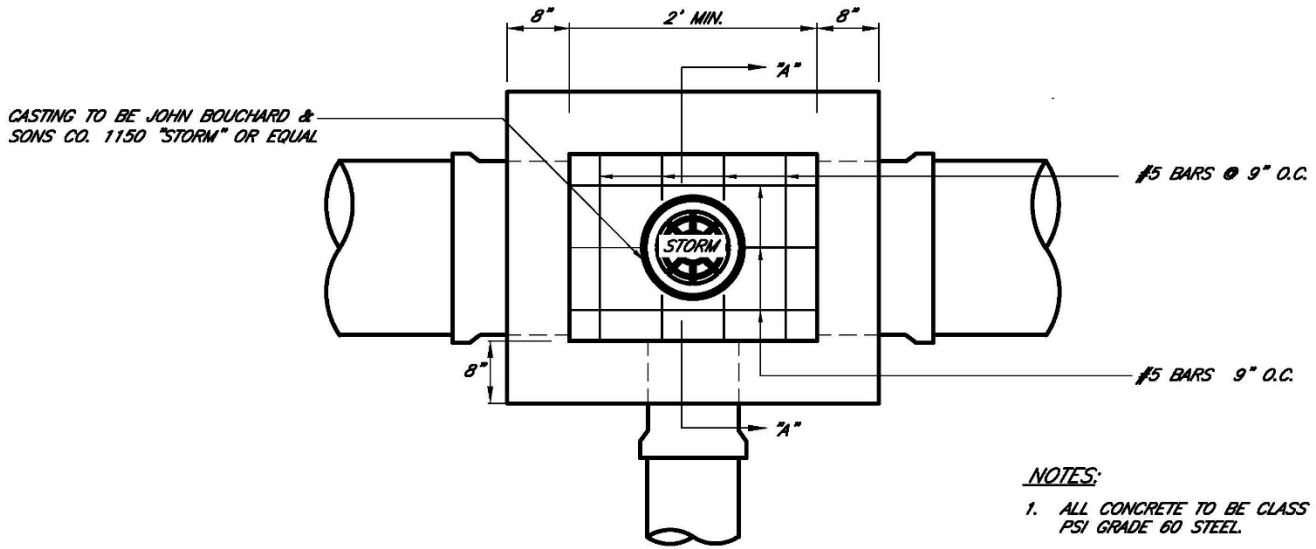
FRANKLIN, KY 42134

AREA DRAIN DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

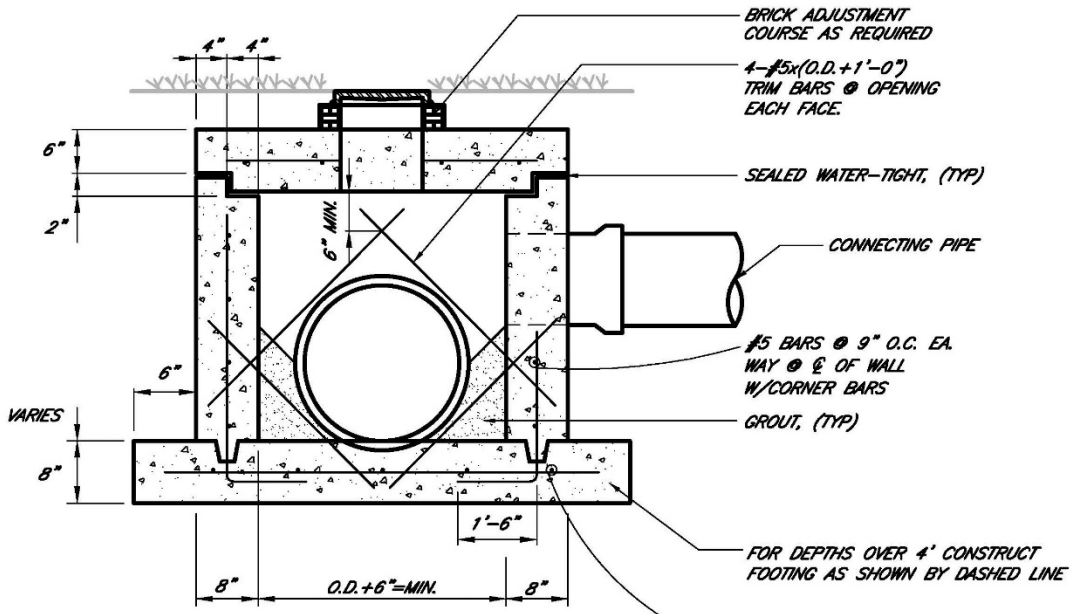
DRAWING NO.
ST-6
REVISION DATE:
4/21



PLAN
N.T.S.

NOTES:

1. ALL CONCRETE TO BE CLASS "A" 4,000 PSI GRADE 60 STEEL.
2. STEPS SHALL BE INSTALLED ON INLETS OVER 2' IN DEPTH.



SECTION A-A

CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

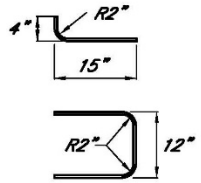
JUNCTION BOX DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
ST-7
REVISION DATE:
4/21

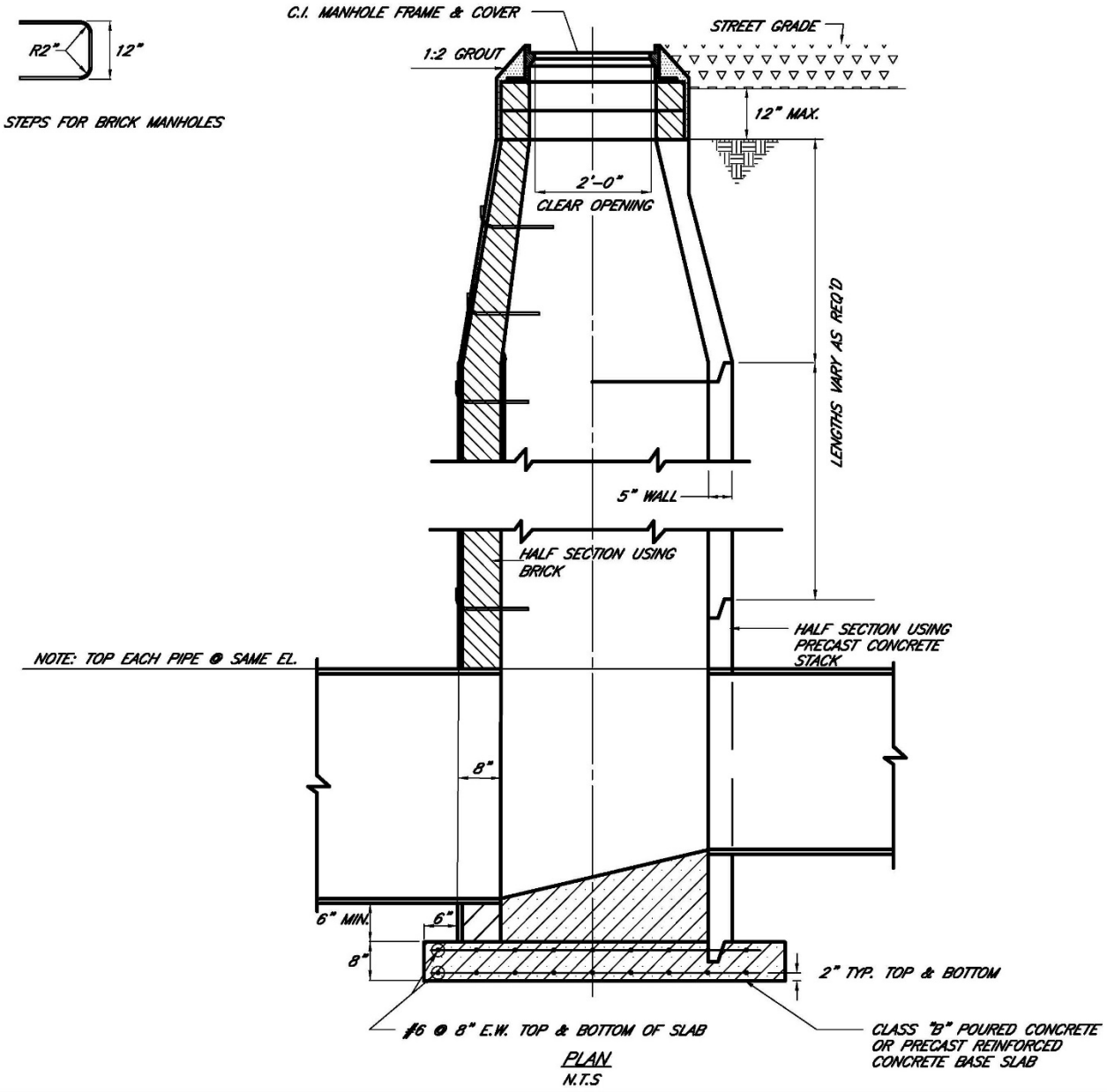
STEPS 18" C.C. & STAGGERED



DETAILS OF STEPS FOR BRICK MANHOLES

NOTE:

1. TOP OF MANHOLE FRAME TO EXTEND AT LEAST 10" BUT NO MORE THAN 12" ABOVE NATURAL GROUND EXCEPT WHERE LOCATED IN STREETS OR WHERE SHOWN OTHERWISE ON THE PLANS.



PLAN
N.T.S

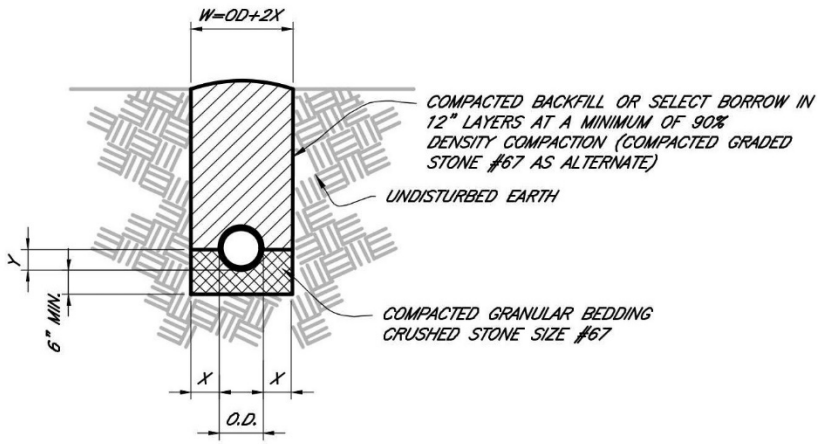
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

4'-6' DIA STORM MANHOLE DETAIL

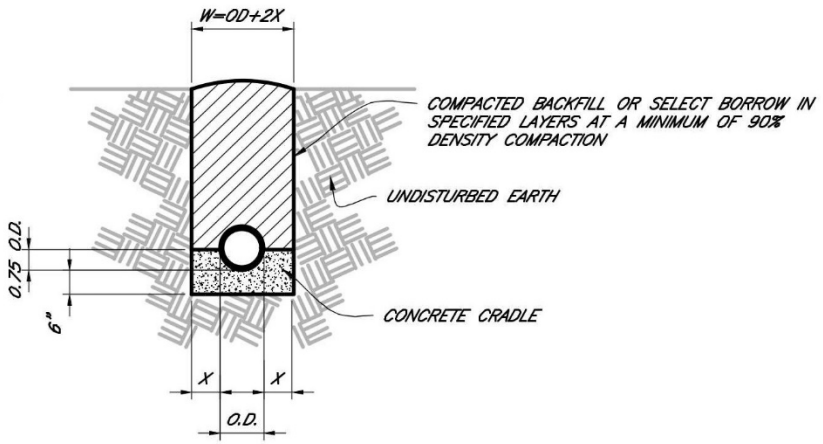
CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
ST-8
REVISION DATE:
4/21



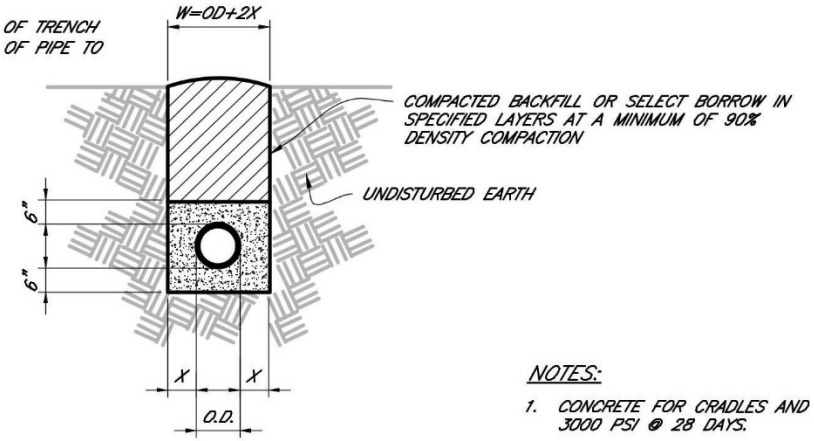
STANDARD TRENCH (IN R.O.W.)
N.T.S



CONCRETE CRADLE
N.T.S

TABLE "A"	TABLE "X"
≤6"	PIPE ø
≥6" – 30"	12"
33" – 42"	15"
48" & LARGER	18"

TRENCH WIDTH (W) SHALL BE 3'-0" MAX. – WIDTH OF TRENCH (W)=O.D.+2X WHERE X IS DISTANCE FROM OUTSIDE OF PIPE TO EDGE OF TRENCH.



CONCRETE ENCASEMENT
N.T.S

NOTES:

1. CONCRETE FOR CRADLES AND ENCASEMENTS TO HAVE f'c = 3000 PSI @ 28 DAYS.
2. POUR CONCRETE AGAINST UNDISTURBED EARTH.
3. FOR CONTINUOUS CONDUIT IN TRENCH CONDITIONS, THE WIDTH OF TRENCH (W) SHALL BE O.D.+2X MAX.
4. THE WIDTH OF TRENCH FOR ALL OTHER PIPE DIAMETERS SHALL BE ACCORDING TO TABLE "A" SHOWN HEREON.
5. BACKFILL MATERIAL IN EXISTING ROADWAYS SHALL BE CRUSHER RUN STONE COMPACTED IN 6" LAYERS UP TO THE BOTTOM OF THE PAVEMENT RESTORATION SECTION.

CITY OF FRANKLIN
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FRANKLIN, KY 42134

TRENCH BACKFILL SECTIONS DETAIL (1)

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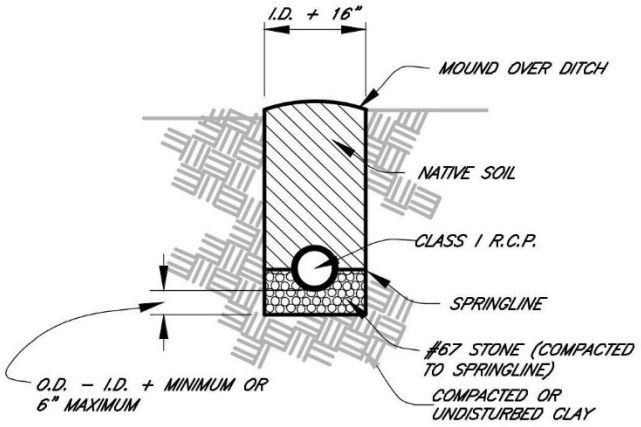
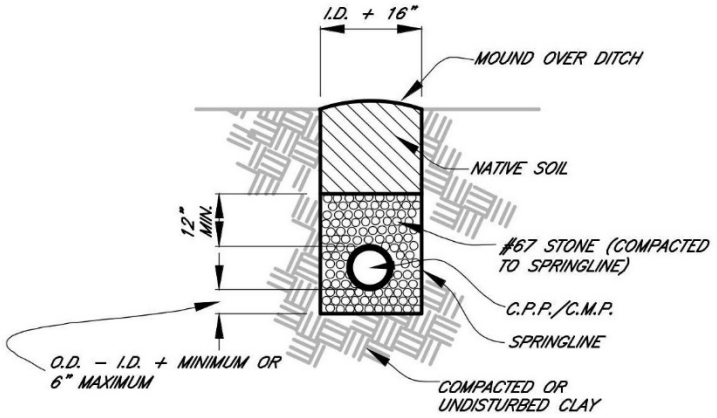
SCALE:
NTS

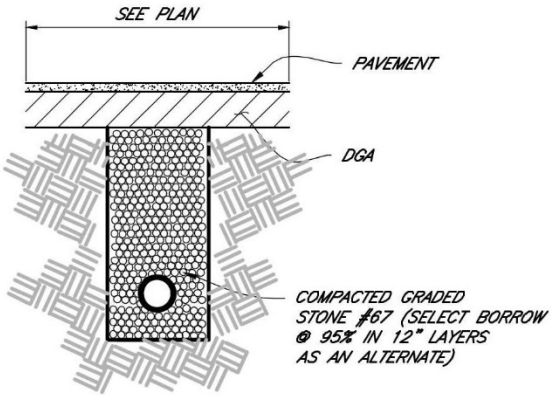
DRAWING NO.
T–1
REVISION DATE:
4/21



R.C.P. DRAINAGE PIPE DETAIL
UNDER NON–TRAFFIC AREAS
NOT TO SCALE



C.P.P./C.M.P. DRAINAGE PIPE DETAIL
UNDER NON–TRAFFIC AREAS
NOT TO SCALE



R.C.P. DRAINAGE PIPE DETAIL
UNDER TRAFFIC AREAS
NOT TO SCALE

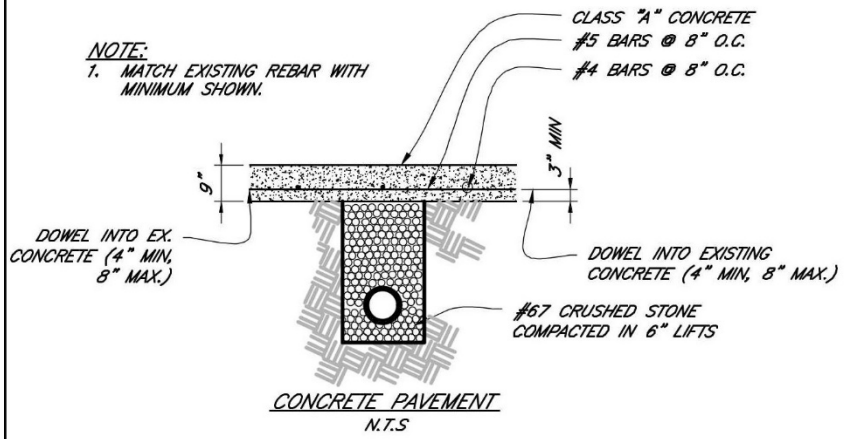
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

TRENCH BACKFILL SECTIONS DETAIL (2)

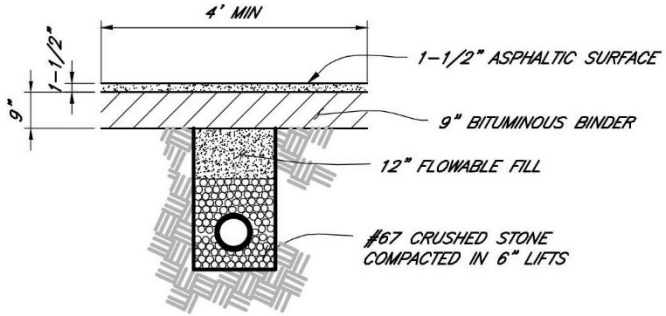
CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

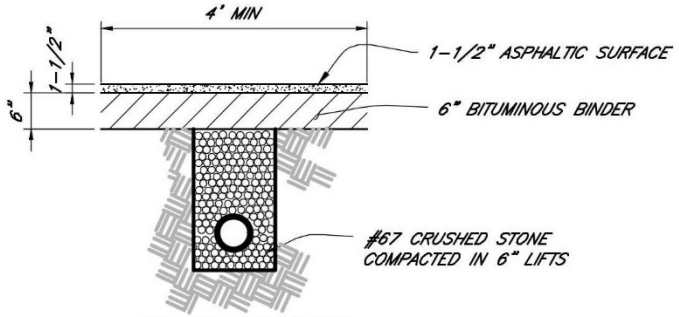
DRAWING NO.
T–2
REVISION DATE:
4/21



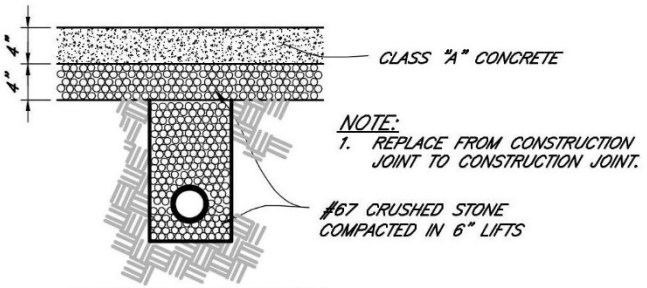
CONCRETE PAVEMENT
N.T.S



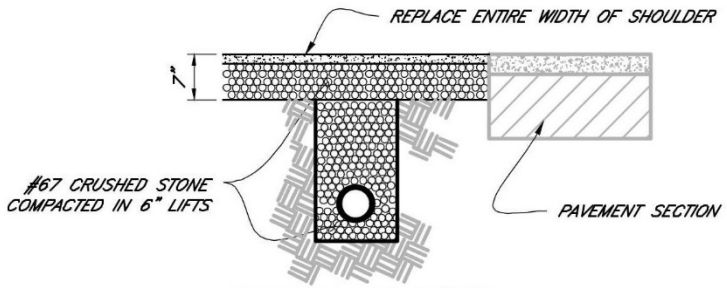
ASPHALTIC SURFACE
CROSSING CUTS
N.T.S



ASPHALTIC SURFACE
PARALLEL CUTS
N.T.S



SIDEWALK REPLACEMENT
N.T.S



SHOULDER REPLACEMENT
N.T.S

NOTES:

1. ALL WORK SHALL BE FIELD CHECKED AND APPROVED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ITS BEGINNING AND AFTER COMPLETION THEREOF.
2. INSPECTION PERSONNEL OF THE DEPARTMENT SHALL BE NOTIFIED AT LEAST TWO (2) DAYS PRIOR TO COMMENCING WORK.
3. ALL WORK PERFORMED SHALL BE WORKMANSHIP DEFECT FREE FOR A PERIOD OF ONE (1) YEAR AFTER COMPLETION.
4. ALL EXISTING PAVEMENT, BASE, CURB AND GUTTER, AND SIDEWALKS SHALL BE CUT AND BROUGHT TO A NEAT LINE BY USE OF AN AIR HAMMER, SAW OR OTHER SUITABLE EQUIPMENT. EXPANSION JOINTS REMOVED SHALL BE REPLACED,.
5. THE MINIMUM WIDTH TO BE TRIMMED ON EACH SIDE OF THE TRENCH LINE, AS SEEN IN THE SECTION, MAY BE WAIVED OR AMENDED UPON APPROVAL OF THE DEPARTMENT INSPECTOR, HOWEVER, A MINIMUM WIDTH OF REPLACEMENT SHALL BE 4'-0" TO ALLOW FOR A ROLLER.
6. IF PERMANENT PAVEMENT REPAIRS CANNOT BE MADE WITHIN THREE (3) DAYS, THEN TEMPORARY PAVING SHALL BE MADE WITH A 2" COLD MIX OR HOT BITUMINOUS SEAL COAT OVER COMPACTED CRUSHED STONE.
7. ALL EXCAVATIONS MADE WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRE EXCAVATION AND STREET CLOSURE PERMITS FORM THE CITY PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCING WORK.
8. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF THE KYTC STANDARD SPECIFICATION.

CITY OF FRANKLIN
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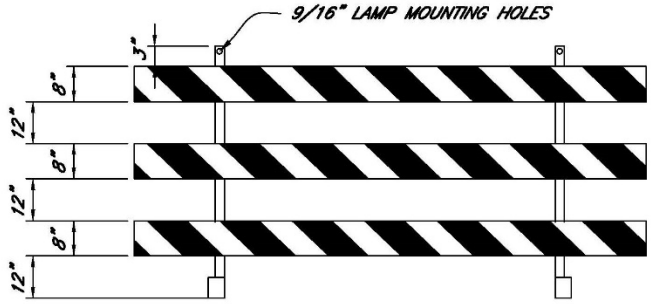
TRENCH REPAIR WITHIN ROADWAY
DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
T-3
REVISION DATE:
4/21



60" MINIMUM BOARD HEIGHT, 63" OVERALL HEIGHT

TYPE III BARRICADE ROAD CLOSURE
N.T.S.

HOLES NOTES:
POWER POST
-5/16" DIA., 9/16" DIA. FOR LAMP

STEEL SQUARE TUBE
-7/16" DIA., 9/16" DIA. FOR LAMP

ANGLE IRON HOLES
-11/32" DIA., 9/16" DIA. FOR LAMP

CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

BARRICADE ROAD CLOSURE DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
TC-1
REVISION DATE:
4/21

APPENDIX E

LIGHTING

PERFORMANCE STANDARDS

Subdivision Regulations
City of Franklin, Kentucky

Performance Standards Regulating Glare and Electromagnetic Interference

A. Definitions

1. Foot Candle: a unit of illumination. Technically the illumination at all points one (1) foot distance from a uniform point source of one (1) candlepower.

B. Limitation of Glare

1. In all districts, site lighting shall be shielded to that substantially all directly emitted light falls within the property line. Illumination in excess of one-half (0.5) foot-candle shall not be permitted across the boundary of any adjacent residential property or public street.

2. No illumination shall produce direct, incident, or reflected light that interferes with the safe movement of motor vehicles on public streets. Lighting prohibited by this provision shall include, but not be limited to, any light that may be confused with or construed as a traffic control device.

3. Maximum permitted height of light fixtures/luminaries in residential districts shall be thirty (30) feet. Maximum permitted height of light fixtures/luminaries in non-residential districts shall be forty (40) feet, except that ball fields and other recreation facilities may have 100 foot power.

4. Exterior Lighting Plan. At the time any exterior light is installed or substantially modified and whenever a use and occupancy permit is sought, an exterior lighting plan shall be submitted to the City in order to determine whether the requirements of this Section have been met and that adjoining property will not be adversely impacted by the proposed lighting.

5. Additional/Alternative Standards for Cutoff Fixture Types. If a luminaire (bulb) has total cutoff of light at an angle less than ninety (90) degrees and is located so that the bare light bulb, lamp, or light source is completely shielded from the direct view of an observer at ground level at the point where the cutoff angle intersects the ground. The maximum permitted illumination and height of the luminaire shall be as indicated in Table 1 and as measured at ground level

TABLE 1

Alternative Standards for Cut-Off Fixture Types

Use and District	Maximum Maintained Illumination (in foot candles)*	Maximum Permitted Height of Luminaire (in feet)
Residential Parking Areas	0.5	30
Non-Residential Parking areas in Non-Residential Districts other than PB, IR, and IG	0.75	30
Non-Residential Parking Areas in PB, IR, and IG Districts	1.0	40

*Note: As measured at ground level

Residential special projects including bikeways and monument entrances should be limited to 1.0 Fc. All such residential projects as well as commercial sites must include a lighting plan (layout and illumination) for approval with subdivision or commercial sites.

6. Exterior Lighting for Specified Outdoor Recreational Uses. Ball Diamonds, playing fields, and tennis courts have unique requirements for night-time visibility and generally have limited hours of operation. These uses may be exempted from the exterior lighting standards if the applicant can satisfy the Planning Commission upon site plan review that the following requirements are met:

(a) The site plan must meet all other requirements of this Article and this Ordinance; and

(b) Any exterior light sources shall not exceed the maximum permitted luminaire

(bulb) height of 100 feet.

(c) If provided that the luminaire (bulb) is shielded in either its orientation or by a landscaped bufferyard to prevent light and glare spill-over to adjacent residential property, then the luminaire may exceed a total cutoff angle of ninety (90) degrees. The maximum permitted illumination at the interior bufferyard line shall not exceed two (2) foot candles.

7. Additional Standards. Notwithstanding any other provision of this Section to the contrary:

(a) No flickering or flashing lights shall be permitted.

(b) Light sources or luminaries shall not be located within bufferyard areas except on pedestrian walkways.

8. Lighting Fixture Locations required:

a. the intersection of public roads with entrance roads to the proposed development,

b. intersections involving proposed public or non-public major-thoroughfare roads within the proposed development,

c. the apex of the curve of any major-thoroughfare road, public or non-public, within the proposed development, having a radius of 300 feet or less,

d. cul-de-sac bulbs

e. terminal ends of center median islands having concrete structure curbing, trees and/or other fixed objects not having breakaway design for speeds of 25 m.p.h. or greater,

f. defined pedestrian crossings located within the development,

g. where lot sizes permit the parking of less than three (3) vehicles on the residential lot, thereby necessitating on-street parking.

h. at other locations along the street as deemed necessary.

APPENDIX F

ARCHITECTURAL & BUFFER DESIGN

STANDARDS

Subdivision Regulations
City of Franklin, Kentucky

Design Standards

A. Purpose

The purpose of this Appendix is to establish regulations and standards for the design, construction and operation of residential development within the City of Franklin. Residential development has a direct effect on the character and livability of the community. This appendix sets forth standards that promote residential development that maintains the context and character of the existing community, to promote positive architectural appearance within residential areas, to encourage design flexibility and creativity, and to establish an interesting, aesthetically pleasing residential environment while addressing issues of compatibility and density.

B. Architectural Diversity

Single family houses in subdivision developments with "similar in appearance" architectural street appearance or that only have minor street view changes in appearance shall not be directly across the street from each other. Likewise, "similar in appearance" houses shall have a minimum three lot separation (two lots between "similar in appearance" architectural plans) on the same side or opposite side of the street. In all situations, the type of architecture should harmonize with the area surrounding the development and/or within the development.

The architectural street appearance of houses erected in the same residential neighborhood for occupancy as dwellings shall not exceed 25% (twenty-five percent) of "similar in appearance" as defined by this appendix.

For the purpose of this appendix, "similar in appearance" shall mean a residential building, which is identical or showing similar characteristics to another, with "similar characteristics" being a combination of four or more of the following architectural characteristics:

a. Roof type (gable, hip mansard, gambrel, flat, combination);

b. Height of roof ridge above finished grade of property;

c. Dimensions (height and length) and shape of the facades facing the front lot line;

d. Locations and sizes of windows, doors (including garage doors) and ornamental work on the façade facing a front lot line;

e. Type of façade, materials (i.e., brick veneer, lapped horizontal siding, half-timber, board and batten, shakes, etc.) on the façade facing a lot line; or

f. Porch Dimension and elevation treatment.

A building is considered dissimilar when less than four of the above characteristics exist among subject dwellings.

C. Plans and Renderings

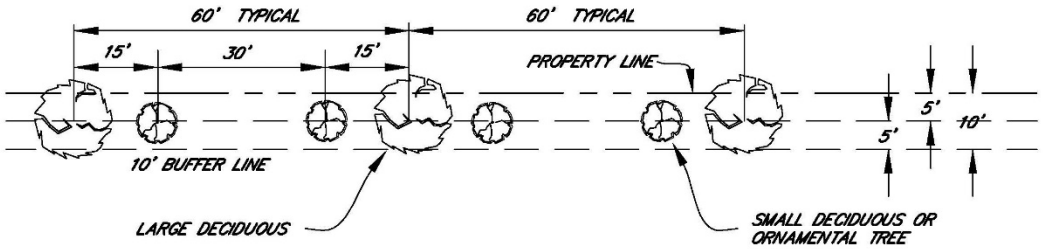
House plans with façade renderings must be submitted prior to a building permit being issued. It is the responsibility of the person obtaining the permit to ensure standards are met.

D. Buffers for Separation from Traffic Arterials and Streets

When a house is constructed in a manner where the rear or side of the building is adjacent to a traffic arterial or collector street, the road frontage adjacent to the rear of the buildings must be heavily screened with a naturalistic, complete year-round buffer as to screen the structure from that

roadway. Berms may be constructed and/or a combination of berms, landscaping and walls installed. Such landscaping must include a sufficient number of evergreens to achieve this requirement during winter months and must be maintained by the Homeowner's Association. The berm and/or landscaping must occur on the subject lot or common area and may not be constructed within the adjacent ROW. Wooden fencing will not be used for permanent buffers.

Standard Typical Buffer Types for use in subdivisions within the City of Franklin follow hereinafter and are incorporated herein by reference.



• SIDE YARD @ COLLECTOR STREET

TYPE 10 BUFFER
NOT TO SCALE

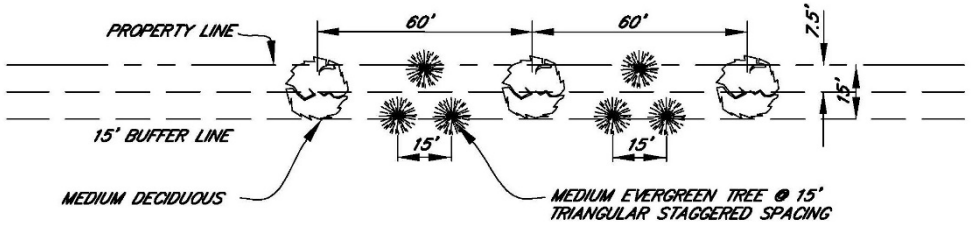
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

TYPE 10 BUFFER DETAIL

CHECKED BY: PMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
L-1
REVISION DATE:
8/5



TYPE 15 BUFFER
NOT TO SCALE

• REAR YARD @ MINOR STREET

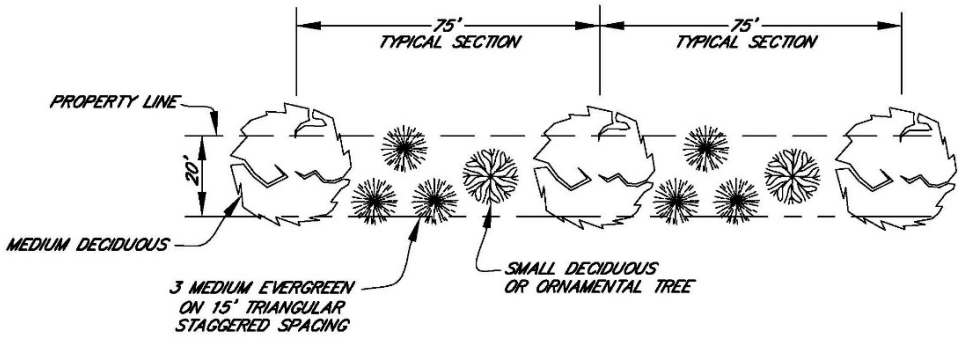
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

TYPE 15 BUFFER DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
L-2
REVISION DATE:
8/5



TYPE 20 BUFFER
NOT TO SCALE

- REAR YARD @ COLLECTOR STREET
- SIDE YARD @ ARTERIAL STREET

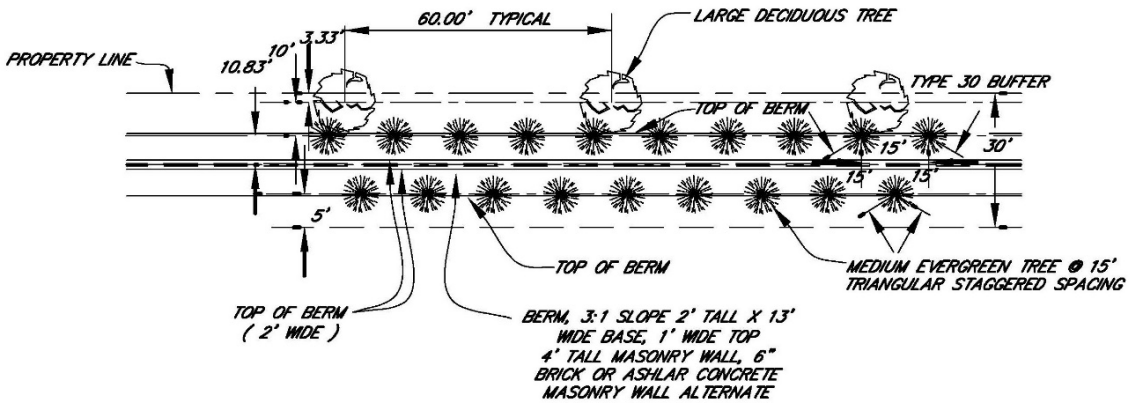
CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

TYPE 20 BUFFER DETAIL

CHECKED BY: RMJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
L-3
REVISION DATE:
8/5



TYPE 30 BUFFER
NOT TO SCALE

- REAR YARD @ ARTERIAL STREET

CITY OF FRANKLIN
SUBDIVISION REGULATIONS
117 WEST CEDAR STREET
FRANKLIN, KY 42134

TYPE 30 BUFFER DETAIL

CHECKED BY: RWJ
DRAWN BY: BME

SCALE:
NTS

DRAWING NO.
L-4
REVISION DATE:
8/5

APPENDIX G

IRREVOCABLE
LETTER OF CREDIT

Subdivision Regulations
City of Franklin, Kentucky

APPENDIX G

IRREVOCABLE LETTER OF CREDIT

(MUST BE ON BANK LETTERHEAD)

Issue Date:_____

Irrevocable Letter of Credit# _____

Beneficiary:
Government of Franklin, Kentucky
117 W. Cedar Street
Franklin, KY 42135

Applicant
Name:_____
Street Address_____
City, State & Zip _____

Amount: _____

Expiration Date: _____

We hereby issue in your favor this irrevocable standby Letter of Credit which is available by payment of your draft at sight drawn on **(Name of Bank)** bearing the clause "Drawn under Letter of Credit **(Number of Letter of Credit)** issued by **(Name of Issuing Bank)**" when accompanied by the following documents:

1. An official statement from the City of Franklin, Kentucky that **(Applicant's Name)** has failed to comply with the terms of its development contract with the Franklin, KY Government in regard to the project known as:
   _____
2. The original Letter of Credit.

Presentation of this Letter of Credit for payment may be made at the office of _____(**Bank**) at_____(**Address**) by causing same to be delivered by recognized national carrier without the necessity of the physical presence of a representative of the Beneficiary. The Issuer and the Beneficiary agree that any litigation with regard to this Letter of Credit shall be held before a Court of appropriate jurisdiction in Simpson City, Kentucky.

This Letter of Credit (**Number**) is valid for one calendar year from (**Date of Issue**) and is automatically renewable for additional one-year periods without any effort on the part of the City of Franklin, Kentucky Government until the aforesaid development contract is satisfied in full.

Should (**Name of Bank**) decide not to renew this Letter of Credit (**Number**), (**Bank**) agrees to notify the City of Franklin, Kentucky Government in writing ninety (90) days prior to its expiration date, certified mail return receipt requested, at which time the City of Franklin, Kentucky Government can draw up to the full-face value of the Letter of Credit (**Number**).

This Letter of Credit (**Number**) is subject to the Uniform Customs and Practice for Documentary Credits (1993 Revision), International Chamber of Commerce - Publication 500.

Signature:_____

Official Bank Representative

APPENDIX H

PERFORMANCE AGREEMENT FORM

Subdivision Regulations
City of Franklin, Kentucky

APPENDIX H

CITY OF FRANKLIN

PERFORMANCE AGREEMENT

PERFORMANCE SECURITY FOR _____
(Subdivision or Project Name)

Know all men by these presents that_____and _____
(Name of Developer or Property Owner)

a Principal, and Letter of Credit # _____ issued by _____ as Surety, are bound unto the Government of the City of Franklin Kentucky for the use and benefit of the Board of City Commissioners, and for the use and benefit of all future lot holders within the hereinafter named subdivision, in the amount of $ _____ for payment of which well and truly to be made we bind ourselves, successors and assigns jointly and severally by these presents.

The condition of this security is that,

WHEREAS, the Principal has submitted a Plat/Plan known as _____ for approval by the Planning Commission, which approval is a condition precedent to the right of the Principal to have such plat recorded in the office of the County Clerk of Simpson County, Kentucky and

WHEREAS, the Planning Commission is unwilling to approve said plat for recordation until all required improvements and facilities are constructed, installed and completed, especially including, but not limited to the construction of streets, grading, drainage, erosion control, water, sewer, landscaping, signage, amenity, and other miscellaneous items, or until a security is executed and filed with the City of Franklin, Kentucky, with a copy filed with the Franklin-Simpson Planning Commission providing for and securing to the public the actual construction and installation of said improvements and facilities; and

WHEREAS, the principal desires to have said plat of said subdivision recorded in the County Clerk's Office of Simpson County, Kentucky, so as to provide for the orderly development and transfer of the property in said subdivision; and

WHEREAS, the estimated cost of construction, installation and completion of the required improvements and facilities is $ _____ and the City County Planning Commission is willing, in lieu of the prior construction of said improvement and facilities to accept such security and approve of said plat for filing and/or registration.

NOW THEREFORE, the Principal shall within _____(__) months from the date hereof construct, install, and complete all of said improvements and facilities above mentioned as shown on said final plat and in particular shall build, construct and complete all streets, grading, drainage, erosion control, water, sewer, landscaping, signage, and other miscellaneous items in proper and workmanlike manner to the satisfaction of the City of Franklin and the Franklin-Simpson County Planning Commission, and following approval of the plan/plat, but before construction of the subdivision shall then execute and file a proper maintenance and/or construction security/irrevocable letter of credit guaranteeing said streets, drainage culverts and facilities etc., for a period of time of not less than one (1) year, and automatically renewing/continuing until acceptance of said streets, drainage culverts, and facilities etc. by the City of Franklin Government, in the amount of not less than One Hundred Twenty percent (120%) of the actual construction costs, as required by the subdivision regulations of the City of Franklin and the Franklin-Simpson County Planning Commission, unless the amount is

reduced by the City of Franklin. Upon acceptance of all construction including, but not limited to streets, grading, drainage, erosion control, water, sewer and landscaping, this security/letter of credit obligation shall be void; otherwise it shall remain in full force and effect for the City of Franklin and the Franklin-Simpson County Planning Commission for the purposes set forth hereinsubject to provisions of the City of Franklin's Code of Ordinances, Regulations of the Franklin-Simpson County Code of Ordinances, and the Kentucky Revised Statutes.

IN THE EVENT, the City of Franklin, Kentucky, by and through its duly authorized representative, determines that the Principal has failed to meet the conditions and has failed to perform the obligations of this security agreement, it may draw on said surety and/or Letter of Credit for such amounts as it deems to be proper for the completion of construction of the subdivision and all other costs associated therewith.

EXECUTED at the Government of the City of Franklin, Kentucky this____ day of_____, 20__.

Witness my hand this the___ day of_____, 20_

BY: _____

TITLE: _____

STATE OF KENTUCKY

CITY OF _____

Personally appeared before me,_____a Notary Public of said City and State, _____ with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath acknowledged (her) himself to be the _____ of_____and that (s)he as such being authorized so to do, executed the foregoing instrument for the purposes contained herein.

Witness my hand and seal this the_____day of_____20_

My Commission Expires: _____

NOTARY PUBLIC

APPENDIX I

CHANGES
CITY SUBDIVISION
REGULATIONS

Subdivision Regulations
City of Franklin, Kentucky

APPENDIX I: CHANGES, CITY SUBDIVISION REGULATIONS				
DATE OF ADOPTION:				
THE FOLLOWING TABLE CONTAINS ALL AMENDMENTS TO THE CITY SUBDIVISION REGULATIONS				
THAT HAVE BEEN APPROVED SINCE THE ABOVE DATE OF ADOPTION				
ARTICLE	SECTION	SUBSECTION	DESCRIPTION OF CHANGE	DATE OF ADOPTION