

## MAJOR SUBDIVISIONS

*Any project that divides a property into five or more lots or is located on a property greater than ten acres and/or any project that creates a new public or private road is considered a Major Subdivision. For a checklist of required steps, please refer to the "[Major Subdivision Checklist](#)" below.*

### **Step 1: Developer Meeting**

- The first step in the Major Subdivision process is the Developer Meeting. This meeting is designed to foster clear communication between the developer and the city, ensuring both parties have a mutual understanding of the process and schedule. We ask that applicants come to this meeting with a rough sketch plan, the type of development, and an idea of the scale and size of the project in mind. Depending on how much information is provided by the applicant, the city may be able to answer questions on infrastructure extension capability at this point. The need for a developer agreement will also be determined. This meeting may include the Developer, Planning Director and/or City Engineer. This collaborative approach ensures that all relevant stakeholders are involved from the outset, paving the way for a smoother development experience.

### **Step 2: Annexation (if necessary)**

- If a proposed major subdivision project is located outside of the current jurisdiction of Kings Mountain, the applicant will likely be required to petition for annexation into city limits. Depending on whether the project is contiguous or non-contiguous to existing city limits, the process of annexation may differ slightly. Regardless of location, the applicant will start by submitting an annexation petition available on the online permitting portal. From there, city staff will initiate an internal review and City Council will direct the City Clerk to start formal investigatory proceedings. The applicant may be asked to submit additional information to the City Clerk, including but not limited to, property records, a metes and bounds description, a recordable plat, and a statement of vested rights.

### **Step 3: Rezoning (if necessary)**

*If unnecessary, skip to Step 4.*

- During the developer meeting, the Planning Director will indicate whether the development is zoned correctly for the proposed usage. Every parcel of land within the city's zoning jurisdiction has an assigned zoning district. Each zoning district has a specific set of zoning regulations (rules) that determine how parcels of land may be used. When a property owner is considering utilizing their property in ways that do not

conform to their current zoning district regulations, they must fill out an application on our online permitting portal to change their zoning classification. This application is heard by the Planning and Zoning Board, who will then make a recommendation to City Council. The City Council will make the final decision on the rezoning based on its overall reasonableness and adherence to the Future Land Use Map. The project cannot proceed unless the property is appropriately zoned for the proposed usage.

#### **Step 4: Sketch Plan Submittal**

*For a checklist of requirements, please refer to the "[Sketch Plan Checklist](#)" below.*

- A sketch plan is a required pre-development document for any project with the City of Kings Mountain. This document is not as technically detailed as a construction drawing but rather serves as a more conceptual outline for development and allows for initial feedback from various city departments, often through the Technical Review Committee structure. This saves the developer time and reduces the cost of the overall project as potential concerns are raised and can be addressed prior to extensive site planning and engineering work. The applicant must provide **4** copies of the sketch plan for city use. A comprehensive list of what is required in a sketch plan is attached below.

#### **Step 5: Traffic Impact Analysis (if necessary)**

*If unnecessary, skip to Step 6.*

*For a checklist of requirements, please refer to the "[Traffic Impact Analysis Checklist](#)" below.*

- When large-scale developments like major subdivisions are constructed, they often can have an impact on traffic flow, especially at key points of ingress and egress. The Traffic Transportation Impact Analysis (TIA) is a tool used to evaluate the incremental impacts on the surrounding transportation infrastructure and how to mitigate them to maintain safe traffic and transportation operations. A TIA is required when expected gross trip generation from a development is 1000 total trips or more, both entering and exiting the site, in a 24-hour period, and/or 100 total trips, both entering and exiting the site, during either the A.M. or P.M. peak. Because of the limited arterial roadway network, developments proposed in the corridors of US-74 Business, NC-161, NC-216, Kings Mountain Blvd., and Phifer Road (from Crocker Road to US-74 Business) are required to complete a TIA when expected gross trip generation is 500 total trips or more, both entering and exiting the site, in a 24-hour period, and/or 50 total trips, both entering and exiting the site, during either the AM or PM peak. If a TIA is required, the city will be responsible for hiring the professional engineering firm and will bill the developer for the cost.

### **Step 6: Sketch Plan Approval**

- The applicant will be notified with comments on the sketch plan within 30 days of submittal. During this duration, the plan will be reviewed by all relevant city departments for potential developmental concerns, and comments from each will be left for the applicant in the online permitting portal. It will also be reviewed by the Planning Department to ensure required mapping standards (per the *checklist*) have been met. The Planning Director will then issue a comment letter, asking any additional questions or detailing changes needed to be made to the document before approval, which may address both mapping standards and general departmental concerns. If the sketch plan is denied, the applicant may appeal this decision to the Planning and Zoning Board within 30 days. If approved, the applicant has 18 months from the Notice of Approval to submit a preliminary plat and construction documents. This determination will be sent to the applicant via the online permitting portal.

### **Step 7: Development Agreement (if necessary)**

*If unnecessary, skip to Step 8.*

- Although not required for every project, the need for a development agreement will be determined at the initial developer meeting. These agreements are typically used for large-scale and long-term projects to ensure that conditions remain favorable for development. In the agreement, certain alterations to city standards may be given in exchange for public improvements made by the developer to the property. If deemed necessary, the agreement will take shape in the form of a contract between the developer and the city and must be approved by City Council.

**Note: Steps 8-13 can happen concurrently.**

### **Step 8: Preliminary Plat Submittal**

*For a checklist of requirements, please refer to the [“Preliminary Plat Checklist”](#) below.*

- A preliminary plat is a scaled drawing that shows the general layout of the entire project in detail. This document serves as an essential step in the land development and approval process, providing a clear visual representation of the project’s scope and design. These documents will be reviewed and approved at the Technical Review Committee. The applicant must provide 4 copies of the preliminary plat for city use. A comprehensive list of what is required in the preliminary plat is attached below.

### **Step 9: Engineered Construction Drawings Submittal**

*For a checklist of requirements, please refer to the [“Construction Drawings Checklist”](#) below.*

- After the sketch plan phase, the next step in the development process is the submittal of construction drawings. The applicant shall have prepared, by a professional engineer registered in the State of North Carolina, construction plans consisting of complete construction drawings. Construction plans shall be submitted to the Planning Director or their designee for review and approval. The applicant must provide **4** sets of the construction drawings for city use. These documents will be reviewed and approved at the Technical Review Committee. A comprehensive list of what is required in the engineered construction drawings is attached below.

#### **Step 10: Receiving Customer Choice Letter**

- Under North Carolina General Statute (N.C.G.S. 160A-332(a)(6b)), municipality-owned utility suppliers are required to disclose the availability of another service provider to the developer. This will come in the form of a letter entitled “NOTICE TO UTILITY CUSTOMER” that must be signed by the applicant before further development can continue. All calculated fees are valid for a period of 90 days following the date of issuance of the letter.

#### **Step 11: Stormwater Plan Submittal and Consultation**

*For a checklist of requirements, please refer to the [“Stormwater Plan Checklist”](#) below.*

- A stormwater plan is required for projects within the City of Kings Mountain to maintain and enhance the public health, safety, environment, and general welfare by establishing requirements and procedures to control the adverse effects of increased post-development stormwater runoff and nonpoint and point source pollution associated with new development and redevelopment as well as illicit discharges into municipal stormwater systems. Proper management of construction-related and post-development stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, and general welfare, and protect water and aquatic resources. Once plans have been submitted, a consultation will be held between city staff and the applicant. The purpose of this meeting is to discuss the post-construction stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities, and potential approaches to stormwater management designs before formal site design engineering is commenced. As part of this process, an outside stormwater consultant may be brought in to help review plans. These documents will first be reviewed by the Stormwater Department and approved by the Technical Review Committee.

### **Step 12: Stormwater General Permit**

For a checklist of requirements, please refer to the "[General Stormwater Permit Checklist](#)" below.

- A general stormwater permit must be completed, submitted, and approved prior to any construction work being started. The permit governs the design, installation, and construction of stormwater management and control practices on the site, including Stormwater Control Measures (SCMs) and elements of site design for stormwater management other than structural SCMs. It is intended to provide a mechanism for the review, approval, and inspection of the approach to be used for management control of stormwater for the development or redevelopment site consistent with the requirements of this chapter, whether the approach consists of structural SCMs or other techniques such as low-impact or low-density design.

### **Step 13: Road Name Submittal (if necessary)**

*If unnecessary, skip to Step 14.*

- When building a major subdivision, public or private roads are often created along with the development. If a new road is to be created, it has to be named and included in the preliminary plat according to City of Kings Mountain and Cleveland/Gaston County E911 standards (depending on which county the project is in). New street names cannot sound similar to existing streets. Any cul-de-sacs or terminating streets must be called "court" if they run east-to-west and "places" if they run north-to-south. These documents will be reviewed and approved at the Technical Review Committee.

### **Step 14: Technical Review Committee**

- Once all the required documents (engineered construction drawings, preliminary plats, and stormwater plans) and any additional necessary documents (traffic impact analysis, road name submittals) have been submitted, all of them will be reviewed by the Technical Review Committee. This is a group of key department heads who meet weekly to evaluate prospective projects and review required documents, as well as give general advice on developmental best practices. After this initial review, a comment letter will be sent back to the applicant with any potential concerns that arise from this committee. If necessary, documents may need to be resubmitted based on comments from the committee before final approval. Once approved, the construction plans will be signed by relevant department heads and further development can continue.

### **Step 15: System Development Fees**

- Once a project has been approved by the Technical Review Committee and infrastructure availability is known, the developer must pay for system development fees. These are one-time charges designed to cover the costs associated with expanding water and sewer infrastructure to service the new development. Essentially, these fees allow the developer to buy into the existing system. On top of new water and sewer lines, these fees are also used for the necessary expansion of water treatment plants, pump stations, etc., to support the development. The rate for this is set by City Council.

### **Step 16: Driveway Permit from City (if necessary)**

*If unnecessary, skip to Step 17.*

- In order to remove, alter, or construct a driveway, curb, or gutter on a public street owned by the City of Kings Mountain, a driveway permit is required. The maintenance of driveways located in or on the right-of-way shall be the responsibility of the property owner. These applications are available through the online permitting portal.

**Note: Steps 17-23 require permits from the State of North Carolina. While the City of Kings Mountain will work in partnership with the applicant on these permits, final approval rests with state agencies. They have been included in this guidebook as part of an exhaustive description of the full development process.**

### **Step 17: Waterline Extension Permit**

*Note: Steps 17-23 can occur concurrently.*

*If unnecessary, skip to Step 18.*

- **FROM NCDEQ:** No construction, alteration, expansion, or interconnection of a community or non-transient, non-community public water system shall be placed into final service or made available for human consumption until the applicant has submitted this certification and received final approval from the department.

### **Step 18: Public Water Supply Permit**

*If unnecessary, skip to Step 19.*

- **FROM NCDEQ:** A permit is required to comply with engineering, planning, and review requirements before construction, alteration, or expansion of a community or non-transient non-community public water system.

### **Step 19: Sewer Extension Permit**

*If unnecessary, skip to Step 20.*

- **FROM NCDEQ:** A permit is required for the construction and operation of new sewer systems by the designated owner. Sewer systems may consist of gravity mains, force mains, and pump stations used for the purpose of conveying wastewater to a designated wastewater treatment facility. These systems also include “alternative” sewers, such as pressure sewers, vacuum sewers, septic tank/effluent pump (STEP) systems, or other alternate sewer systems that discharge to another system. Sewer extensions that are not of “alternative” design and do not require a variance from the requirements of 15A NCAC 02T or the MDC may apply for permits through the fast-track permitting process. The permitting of sewer extensions allows for their use in a manner that is protective of health and the environment and supports the prohibition of sanitary sewer overflows.

### **Step 20: Erosion Control Permit (if necessary)**

*If unnecessary, skip to Step 21.*

- **From NCDEQ:** Any land-disturbing activity covering one acre or more, except certain agricultural activities that include production of plants or animals for the benefit of mankind, mining, reclamation of converted wetlands back to wetlands from agricultural use, and forestry activities conducted in accordance with N.C. Forest Practice Guidelines related to water quality, requires an erosion control permit. This permit is required to provide protective measures to vulnerable areas in developments against accelerated (man-made) erosion and sedimentation that damages adjoining properties, streams, and other water resources of the state.

### **Step 21: Wetland Impact Permit Section 401 (if necessary)**

*If unnecessary, skip to Step 22.*

- **From NCDEQ:** The North Carolina Division of Water Resources (DWR) is the state agency responsible for issuing 401 water quality certifications (WQC). When the state issues a 401 certification (which is required for any federally permitted or licensed activity that may result in a discharge to waters of the U.S.), this certifies that a given project will not degrade waters of the State or violate state water quality standards. A 401 WQC is required for any federally permitted or licensed activity that may result in a discharge to waters of the U.S. Typically, if the USACE determines that a 404 Permit or Section 10 Permit is required because your proposed project involves impacts to wetlands or waters, then a 401 WQC is also required. Examples of activities that may require permits include any disturbance to the bed (bottom) or banks (sides) of a stream, any

disturbance to a wetland, the damming of a stream channel to create a pond or lake, placement of any material within a stream, wetland, or open water, including material that is necessary for construction, culvert installation, causeways, road fills, dams, dikes, or artificial islands; property protection; reclamation devices; and fill for pipes or utility lines; and temporary impacts, including dewatering of dredged material prior to final disposal and temporary fill for access roads, cofferdams, and storage and work areas.

**Step 22: Driveway Permit from NCDOT (if necessary)**

*If unnecessary, skip to Step 23.*

- **From NCDOT:** The public roadway system of the State of North Carolina is a vital asset to the safe, efficient movement of goods and services that promote and maintain a high quality of life for the state. Driveway/street connections are the leading cause of vehicle crashes, traffic congestion, and impedance of traffic flow. Therefore, the traveling public has entrusted to the NCDOT the regulatory authority to assure that any driveway connection requested onto the public transportation system must be safe, efficient, and minimize impedance to traffic flow. Anyone that plans to develop property, redevelop property through expansion, change the use, or alter the existing access must obtain a driveway permit to obtain or modify access to the State Highway System. It is a document that is used by the North Carolina Department of Transportation (NCDOT) to document that any development submittal requesting access to the state’s public highway system is designated, located, and constructed to minimum state standards.

**Step 23: Right-of-Way Encroachment Agreement**

- **From NCDOT:** When construction or utility installation is proposed within the limits of NCDOT right-of-way, an encroachment agreement is required. Performance and indemnity bonds may be required from the applicant of an encroachment agreement for installations to be placed within the limits of highway rights-of-way. The purpose of such bonds is to indemnify NCDOT for any damages within the highway rights-of-way caused by the installation.

**Step 24: Improvements Meeting**

- Prior to the start of improvements, a meeting will be held between the applicant and city staff to coordinate construction activities. During this meeting, the city will determine the need for any public improvements on the development. These improvements (if any) may include alterations to plans that affect the public and neighboring properties as determined by the City Engineer and Public Infrastructure staff.

### **Step 25: Performance Guarantee (125%)**

- A performance guarantee is a surety bond agreement insured by a licensed financial institution that is made between the developer and the city to ensure that public improvements are completed. The bond amount will be 125% of the estimated improvement costs, including the price of labor and materials, and will last for a duration of one year, unless an extension to complete improvements is needed. Extensions will be granted at the discretion of the Planning Director.

### **Step 26: Certificate of Coverage (NCG01)**

- **FROM NCDEQ:** This permit applies to all owners or operators of stormwater discharges with construction activities such as clearing, grading, and excavation that result in the disturbance of a land area greater than or equal to one acre, or that are part of a common plan of development of that size or greater that are also subject to the North Carolina Sedimentation Pollution Control Act of 1973 (SPCA). This permit may also be issued to stormwater discharges from activities deemed by the Division on Energy, Mineral, and Land Resources (DEMLR) to be similar to these operations in process or stormwater charges. Those engaging in this type of development must develop and adhere to an Erosion and Sedimentation Control (E&SC) plan. This permit does not apply to land-disturbing activities covered under NCG020000 (Mining Activities) permit.

### **Step 27: Verification of Improvements**

- During the preparation of land and the installation of general improvements, periodic inspections shall be made to ensure conformity with the approved plans, specifications, and standards. Appropriate agencies of the City and state may make inspections at any time during the progress of work. Once improvements resulting from the pre-construction meeting have been made, they will need to pass final verification in order to be accepted and release the applicant from the performance bond. This can only occur after as-built drawings have been submitted and 80% build-out has been achieved. Once verified, the applicant will be released from the performance bond.

### **Step 28: NCDEQ and NCDOT Permit Approval**

- Once improvements have been made and prior to the start of construction, final permit approval for water, sewer, stormwater, and environmental systems must be given by the NCDEQ for all large-scale projects. This includes the waterline extension, public water supply, and sewer extension; wetland impact Section 401; and Certificate of Coverage (NCG01) permits. For more information on these permits, please refer to Steps 15-21 & 25 above or contact the North Carolina Department of Environmental Quality.

### **Step 29: Submittal of As-Built Drawings**

*For a checklist of requirements, please refer to the [“As-Built Drawings Checklist”](#) below.*

- Prior to final inspection of the required improvements, the applicant shall submit to the Planning Director one electronic version (ESRI or CAD) and two prints of as-built engineering drawings for each of the required improvements that have been completed. Each set of drawings shall be re-certified by the applicant's engineer, indicating the date when the as-built survey was made.

### **Step 30: Maintenance Bond**

- After the release of the performance bond, a maintenance guarantee shall be secured by a surety bond or cash escrow in an amount reflecting twenty-five (25) percent of the cost of the completed improvements. This is done to guarantee the improvements against defects in workmanship and materials that arise in a period of one year after the final lift of asphalt has been installed. In extreme circumstances, the duration of this guarantee can be modified by the Planning Director.

### **Step 31: Final Plat Submittal**

*For a checklist of requirements, please refer to the [“Final Plat Checklist”](#) below.*

- A final plat is a survey of the entire project in detail. All rights-of-way that will be dedicated to the public will be listed in this document. This document serves as the final drawing required in the land development and approval process. The applicant must provide 3 copies of the preliminary plat for city use. A comprehensive list of what is required in the final plat is attached below.

### **Step 32: Final Plat Approval**

- The final plat will be reviewed by the Planning Director for potential developmental concerns, and comments from each will be left for the applicant in the online permitting portal. It will also be reviewed by the Planning Department to ensure required mapping standards (per the *checklist*) have been met. The Planning Director will then issue a comment letter, asking any additional questions or detailing changes needed to be made to the document before approval, which may address both mapping standards and general departmental concerns. If the final plat is denied, the applicant may appeal this decision to the Planning and Zoning Board within 30 days. If approved, the plat will be signed, and the applicant will receive notice through the online permitting portal. Within 30 days of approval, the final plat will be filed with the Register of Deeds, and addresses will be created for new residences.

### **Step 33: Building Permits**

- After all necessary pre-construction work is done, building permits will be required in order to complete the project. For major subdivisions, the residential building permit will be required. This is available and required to be completed on the online permitting portal. Once approved, the developer can start construction on the project. For more information on building permits, please refer to the “**PERMITS**” section below.

### **Step 34: Utility Tap Applications**

- After building permits have been issued, the applicant must also apply for any necessary utility taps (electric, gas, water, and/or sewer). This is the formal process for entering into our utility system and the approval will allow for physical connection to existing lines. In order to start the process for connecting to city electric and gas infrastructure, applicants are required to submit a Line Extension Application. A Line Extension application shall be submitted on the required form and include the site development plan, construction plan, and additional detailed electric load data (if required). It is the applicant's responsibility to make sure that the site development plan, construction plan and electric load data submitted are accurate and up to date as any subsequent changes will result in additional engineering costs and line extension fees to the applicant. Line Extension fees for all other requests shall be calculated based upon the detailed engineering analysis and design of electric distribution infrastructure and will include the applicable labor, material and engineering costs required to provide standard electric distribution infrastructure at the service location. These applications are available through the online permitting portal.

### **Step 35: Building Inspections**

- During construction, inspections will need to be made at various steps in the construction process. After construction has been completed, all new builds are required to pass a final inspection completed by the Inspections and Codes Department. This new construction will be evaluated in compliance with State of North Carolina Building Code and the City of Kings Mountain Unified Development Ordinance. Inspections are graded pass/fail, so if part or all of the construction is not up to code and needs to be modified, the applicant will receive notice in the comment section of the online permitting portal and will need to make the necessary improvements before the process can move forward. Once improvements have been made, the applicant will need to schedule an additional appointment for re-inspection. This review process may take multiple inspections. To schedule an appointment with Inspections and Codes staff, please refer to the online permitting portal.

**Step 36: Certificate of Occupancy**

- The final step in the major subdivision process is the issuance of a Certificate of Occupancy. Approval of a Certificate of Occupancy and Compliance shall authorize the applicant to occupy the structure or land and will be issued only after all required inspections have been completed. It is unlawful to use, occupy, connect, or provide utilities to or permit the use or occupancy of any building or land created, erected, changed, converted, altered, or enlarged in its use or structure without a Certificate of Occupancy.

**Step 37: Development Services Survey**

- Thank you for completing your project with the City of Kings Mountain! Please take a few minutes to take a short survey about your experiences to help facilitate future development. This survey will be automatically sent to you after the issuance of the Certificate of Occupancy.



## Major Subdivision Checklist:

*The following is a checklist designed to ensure all steps in the Major Subdivision process have been met. For more information on each step, please refer to the detailed descriptions above and the other attached checklists.*

- Developer Meeting
- Annexation (if necessary)
- Rezoning (if necessary)
  - Rezoning Fee Paid
  - Application Submitted in online permitting portal
  - Planning & Zoning Board Approval
  - City Council Approval
- Sketch Plan Submittal
- Traffic Impact Analysis (if necessary)
- Sketch Plan Approval
- Developer Agreement (if necessary)
- Engineered Construction Submittal
- Preliminary Plat Submittal
- Customer Choice Letter Received
- Stormwater Plan Submittal
- Road Name Submittal (if necessary)
- Technical Review Committee Review
  - Comment Letter Received (if necessary)
  - Resubmittal (if necessary)

- Technical Review Committee Approval (if necessary)
- System Development Fees Paid
  - Water (\$)
  - Sewer (\$)
- Construction Plan Signed
- Driveway Permit from City
- Required State Permits Received (if necessary)
  - Waterline Extension Permit
  - Public Water Supply Section
  - Sewer Extension Permit
  - Erosion Control Permit
  - Wetlands Impact
  - Driveway Permit (if on NCDOT road)
  - Right-of-Way Encroachment Permit
- Pre-Construction Meeting
  - Estimates for Improvements (\$)
  - Agreement for Bond
- Performance Guarantee (125%) Paid
- Stormwater General Permit
- Certificate of Coverage (NCGO1) (if necessary)
- Improvements Verified
- NCDEQ & NCDOT Permit Approval (if necessary)
- As-Built Drawings Submittal
- Maintenance Bond (25%)
- Final Plat Submittal

- Final Plat Approval
- Building Permit Application
- Building Permit Approval
- Inspection
- Certificate of Occupancy Issued
- Development Services Survey



## Sketch Plan Checklist:

*The following is a checklist designed to ensure all required standards for the Sketch Plan have been met. For more information on the Sketch Plan in general, please refer to the detailed descriptions above.*

- Scaled drawing of entire project with listed phases (not less than 1" = 200')
- Name of Development
- Name of map type (Sketch, Preliminary, Final)
- Owner's name, address, daytime phone
- Developer's name, address, daytime phone
- Location (including address)
- Map preparer name address, daytime phone (if different from developer)
- Date of map (initial or revised)
- Zoning District(s) and watershed classification of property and adjacent properties SR
- Existing land use on property if not vacant
- Tax map, block and parcel number
- Vicinity map at a scale of 1" = 2000' Shown at
- Any jurisdictional lines
- North arrow
- Distances around project boundaries, bearings, distances and curve data (existing property lines)
- Existing right of way lines for road or rail
- Proposed right of way lines and width dimension
- Proposed sidewalks

- Water courses, wetlands, lakes, streams, marshes
- Proposed common area or open space
- Proposed lot lines and dimensions
- Acreage in total tract
- Total number of lots proposed
- Average size of lot
- Setbacks for zoning district
- Plan for providing utilities in graphic or narrative form
- Sketch Plan approval box



## **Traffic Impact Analysis (TIA) Checklist:**

*The following is a checklist designed to ensure all required standards for a Traffic Impact Analysis study have been met. For more information on the TIA in general, please refer to the detailed description above or Chapter 156.70.03.B of the Unified Development Ordinance.*

### Cover/Signature Page

Project name

Location

Name and contact information of the applicant

Date of the study

The name, contact information, registration number, signature, and seal of a duly qualified and registered professional engineer in the State of North Carolina are also required to appear on this page.

### Table of Contents

All section headings, figures, tables, and appendices

### Executive Summary

Description of the study findings

A general description of the project scope

Study horizon years

Probable transportation impacts of the project

Mitigation measure recommendations.

### Project Description

Size of the parcel

Development size

Existing and proposed uses for the site

- Anticipated completion dates (including phasing)
- Square footage of each use and/or the number and size of dwelling units proposed
- A map and copy of the site plan provided by the applicant(s).
- Site Description
  - Project location within the City and region
  - Existing zoning and use (and proposed use if applicable)
  - Key physical characteristics of the site, including general terrain and environmentally sensitive or protected areas.
- Site Access
  - Complete description of the ingress/egress of the site including number of driveways
  - Their locations
  - Distances between driveways and intersections
  - Access control (full-movement, leftover, right-in/right-out, etc.)
  - Types of driveways (two-way, one-way, etc.)
  - Traffic controls, etc.
- Study Area
  - Location, size and extent of the proposed project and an understanding of existing and future land uses and traffic conditions surrounding the site
  - All streets and signalized intersections within a 1-mile radius of the proposed site
  - A site location map shall identify natural features, major and minor roadways within the study area, study intersections, and a boundary of the site under consideration.
- Existing Conditions
  - A narrative and map that represents AM and PM peak-hour turning-movement volumes for all intersections within the study area.
- Future Year Conditions
  - Conditions for a single-phase development shall be analyzed for the year the development is expected to be at full occupancy (build-out year) and five years after the build-out year (build-out + 5).

For multiple-phased development, the scenarios shall be completed in order, with any improvements specified by development included in the subsequent build scenarios, including five years after the full build-out year (build-out +5).

Only projects approved by the City at the scoping meeting may be included in the analysis as future existing infrastructure. Those improvements committed by other projects must be clearly identified in the report as approved offsite development road improvements.

Adjacent development traffic information used in the development of the future-year background traffic volumes shall be included in the appendix of the TIA report.

A narrative and map shall be prepared that presents turning movement volumes for each peak hour for all intersections identified within the study area. Future year base traffic volumes, other development volumes, and site traffic volumes shall be clearly separated and combined in the map.

Trip Generation

A trip generation table shall summarize all trip generation calculations for the project. Base trip generation for the proposed land use(s) shall be calculated using data published in the latest version of the Institute of Transportation Engineers' (ITE) Trip Generation Manual.

Trip Distribution

A map showing the percentage of site traffic on each street included in the study area shall be included in the TIA.

Trip Assignment

Project traffic shall be distributed to the surrounding transportation system based on the site's trip generation estimates and trip distribution percentages. Future year build-out traffic forecasts (i.e., future year background traffic plus project traffic) shall be represented in graphic formats for AM and PM peak-hour conditions at all intersections included in the study area.

If the project will be built in phases, traffic assignments shall be reported for each phase. Pass-by traffic shall be included at the driveways and access points for evaluating driveway volumes.

Vehicle Capacity Analysis

Existing signal timing plans shall be included in the appendix of the TIA report. If a traffic signal is part of a coordinated system it must be analyzed as such under all conditions.

All TIA reports submitted to the City shall use Synchro, SimTraffic or VISSIM analysis software for signalized and unsignalized intersections, or Sidra Software, for roundabouts, consistent with policies released by the NCDOT.

A narrative, table, and map shall be prepared that summarizes the methodology and measured conditions at the intersections reported in LOS (LOS A – F), the intersection and approach signal delay for signalized intersections, the approach delay for unsignalized intersections, and 95th percentile queue lengths for all movements.

Capacity analysis worksheets and auxiliary turn lane warrants for unsignalized intersections shall be included in the appendix of the TIA report.

Multimodal Capacity Analysis

For developments located within the Central Business District, the TIA/TTM shall provide multi-modal operations analyses including vehicular, pedestrian and bicycle traffic, to allow for the safe and convenient travel for all modes.

Queuing Analysis

Recommendations for left and right turn lanes serving the site shall be designed to both account for the NCDOT warrants described above and to meet future year capacity needs identified in the TIA report.

If a TIA is required for a new school site, the internal circulation and ingress/egress of the site shall be modeled using a “dummy signal” in the SYNCHRO software as prescribed by NCDOT Municipal School Transportation Assistance (MSTA) department.

Crash Analysis

A summary of crash data (type, number, and severity) for the most recent 3-year period at each study location is required.

Traffic Engineering Accident Analysis System reports will be provided by the City and/or NCDOT and shall be included in the appendix of the TIA report.

At a minimum, the proposed development features shall not contribute to factors potentially involved in collision rates. If contributing factors are identified, recommendations to eliminate or mitigate these features shall be included.

Traffic Signal Warrants

Traffic signal warrants shall be included in the appendix of the TIA report.

Mitigation Measurement

A narrative and table shall be prepared that summarizes the methodology and measured conditions at the intersections reported in LOS (LOS A–F) and average control delay for each intersection and approach.

A narrative and map shall also be prepared that describes and illustrates recommended improvements, by development phase if necessary, for mitigating the projected impact of the proposed development.

Compliance with Adopted Transportation Plans

All TIA reports must include a statement of compliance with plans, programs, and policies adopted by the City of Kings Mountain for maintaining a safe and efficient multi-modal transportation system.



## Preliminary Plat Checklist:

*The following is a checklist designed to ensure all required standards for the Preliminary Plat has been met. For more information on the Preliminary Plat in general, please refer to the detailed description above.*

- Name of Development
- Name of map or Plan (sketch plan, preliminary plan, etc.)
- Owner's name with address and daytime phone #
- Location (including address, City, township City & state)
- Date(s) map(s) prepared or revised
- Scale of drawing in feet per inch (drawing shall not be at scale of not less than 1" equal to 200')
- Bar Graph Scale
- Name, address, telephone # of preparer of map
- Developer's name, address, and daytime phone number (if different from owner's)
- Map preparer name address, daytime phone (if different from developer)
- Zoning district(s) and water supply watershed classifications within the property adjacent properties
- Existing land use within the property & adjacent properties
- Existing or proposed easements
- Plat book or deed book references
- Names of adjoining property owners (or subdivisions or developments of record with plat book and/or deed book reference)
- Tax map, block & parcel(s) #
- Vicinity map showing location of site relative to surrounding area typically drawn in upper right-hand corner, at a scale of 1" - 2000'.

- Corporate limits, City lines, and other jurisdiction lines, if any, on the tract
- North arrow & orientation (North arrow shall be oriented toward top of map where practicable)
- Floodway and floodway fringe field survey boundaries
- Boundaries of the tract to be subdivided or developed:
  - Distinctly and accurately represented and showing all distances; show bearings and distances and curve data on outside boundaries and street centerlines on preliminary with street centerline tied to boundary.
  - Showing locations of intersecting boundary lines of adjoining properties
- Location and descriptions of all monuments, markers and control corners
- Existing property lines on tract to be subdivided. If existing property lines are to be changed, label as "old property lines" and show as dashed lines
- Dimensions, location and use of all existing buildings; distances between buildings measured at the closest point; distance from buildings to closest property lines; buildings to remain on final.
- The name and location of any property or building on the National Register of Historic Places or locally designated historic property
- Railroad lines and right-of-way
- Water courses, ponds, lakes or streams
- Marshes, swamps and other wetlands
- Areas to be dedicated or reserved for the public or a local jurisdiction
- Areas designated as common area or open space under control of an Owners Assoc.
- Existing and proposed topography of tract and 100 feet beyond property showing existing contour intervals of no greater than 5 feet (2 feet where available) and labeling at least two contours per map and all others at 10-foot intervals from sea level
- Proposed lot lines & dimensions; show bearings and distances on final
- Square footage of all proposed lots under one (1) acre in size; smallest lot indicated
- Acreage for all lots over one acre

- Site calculations including:
  - Acreage in total tract
  - Acreage in public greenways and other open space
  - Total number of lots proposed
  - Linear feet in streets
  - Area in newly dedicated right—of—way
- Lots sequenced or numbered consecutively
- R/W Lines
- Total R/W width dimension
- R/W width dimension from centerline of existing public streets
- Cul-de-sac R/W radius from center point
- Existing and proposed streets showing:
  - Pavement or curb lines
  - Pavements width dimensions (face-to-face) (or EP to EP)
  - Cul-de-sac pavement radius from center point
  - Existing & proposed street names
  - Location, dimension & type of all easements (Existing and proposed)
- Utility Layout Plan showing connections to existing systems, line sizes, material of lines, location of fire hydrants, blow offs, valves, manholes, catch basins, force mains, etc. for the following types of utility lines: (Not to substitute for construction plans)
  - Sanitary sewer
  - Water distribution
  - Storm sewer
  - Natural gas, electric, cable TV



## **Construction Drawings Checklist:**

*The following is a checklist designed to ensure all required standards for Engineered Construction Drawings have been met. For more information on Construction Drawings in general, please refer to the detailed description above.*

- All standards under **“Preliminary Plat Checklist”**
- Traffic Control Devices
- Street Lights
- Sidewalks
- Location and design of Solid Waste refuse container
- Plan and Profile showing Streets with complete design showing all horizontal curve data, vertical curve data, super elevation, etc. and NCDOT approvals such as driveway permits, NCDOT streets, etc.
- Storm drainage design and calculations with size, material, grade, length and cover on all pipes, and size, type and location of all catch basins.
- Temporary and permanent erosion control methods and proposed fill.
- A copy of the approved State Erosion Control Plan and approval letter prior to beginning of construction.



## **Stormwater Plan Checklist:**

*The following is a checklist designed to ensure all requirements for the Stormwater Plan have been met. For more information on the Stormwater Plan in general, please refer to the detailed description above or contact the Stormwater Division.*

- Existing and proposed topography
- Perennial and intermittent streams
- Mapping of predominant soils from soil surveys (if available)
- Boundaries of existing predominant vegetation
- Proposed limits of clearing and grading
- Location of existing and proposed
  - Roads
  - Buildings
  - Parking areas
  - Other impervious surfaces



## General Stormwater Permit Checklist:

*The following is a checklist designed to ensure all requirements for the General Stormwater Permit have been met. For more information on the Stormwater Permit in general, please refer to the detailed description above or contact the Stormwater Division.*

### **General Requirements**

- Sheets shall be no larger than 30" x 42" plan and profile paper.
- Minimum text size shall be 1/8"
- Scale on plan view shall be no smaller than 1" = 50'; scale on profile view shall be no smaller than 1" = 50' horizontally and 1" = 5' vertically using a grid showing 1' intervals.
- All drawings to be in North Carolina State Plane coordinate system.
- Cover sheet shall have a vicinity map at a scale no smaller than 1" = 200'.
- Provide a legend indicating existing and proposed lines, features and symbols.
- Cover sheet shall include all general notes, owner's name, telephone number, and mailing address.
- All elevations shall be given in relation to mean sea level; elevations in profile view shall be labeled in 10' intervals on the heavy lines (Ex. 350, 360).
- Benchmark elevations and locations shall be shown on plan view.
- Plan views shall have a north arrow on each drawing.
- Each drawing shall have the following information in the title block: Street or project title, limits, horizontal and vertical scales, original date, revisions date, drawing number, checked by and drawn by. Recommended placement is lower right-hand corner.
- All drawings sealed, signed and dated by a NC Professional Engineer or Landscape Architect.
- A signed and sealed statement on the plans (if a high density project) certifying that the design of all stormwater management facilities and practices will control and treat the runoff

from the from the first one inch of rain over the total drainage area, that the designs and plans are sufficient to comply with applicable standards and policies found in the NCDENR Stormwater SCM Design Manual and any City of Kings Mountain supplements to the SCM Design Manual, and that the designs and plans ensure compliance with the City's Phase II Stormwater Ordinance.

Plan view shall show all actual street names (existing and proposed). State road numbers shall be shown if applicable. Plan view should also indicate whether street is asphalt, concrete, gravel or dirt. Proposed street & Right- of-way widths will be dimensioned back-to-back and labeled in plain view.

Plan view shall show proposed and existing curb and gutter, pavement, storm sewers, drainage structures, driveway pipes, drainage features (ditches, swales, etc.), water mains, sanitary sewer mains, etc. Direction of flow shall be shown on plan view for all sanitary sewers and storm drains. Materials and pipe sizes shall be labeled.

Existing utility lines shall be shown and labeled on plan view and indicated in the legend.

Construction Drawings shall show final proposed locations and dimensions of all water, storm drain, and sanitary sewer lines, devices to be installed on the system, catch basins, culverts, SCMs, ditches, including grades, pipes sizes, elevations, assumptions, calculations, invert elevations for all inlets and manholes and profiles of sanitary sewer lines. All available elevations shall be shown on the profile view.

All existing and proposed water, storm drainage and sanitary sewer easements shall be shown on all applicable sheets.

Number of dwelling units, lots, built-upon area (predevelopment and post- development).

Existing and proposed topographic lines on tract and minimum 100-feet beyond property lines (minimum 2-foot intervals).

City limits, county lines, and other jurisdiction lines, if any.

Streams, ponds, wetlands, etc. on the project site and within 50 feet of the property lines.

Location of floodplain and floodway (if applicable).

Location of drainage ways and easements.

***Site Drainage Features:***

- Existing and planned drainage patterns (include off-site areas that drain through project).
- Any existing stormwater control systems.
- Sub-watershed delineation showing drainage areas.
- Show extent and number of disturbed acres.
- Proposed impervious areas.
- Soil information: type, special characteristics.
- Name and classification of receiving watercourse.

***Permanent Stormwater Control Measures (High Density only):***

- Type of SCM (wet pond, rain-garden, etc.)
- Designation of all SCMs as temporary (during construction only) or permanent.
- Designer's certification.
- Narrative description of proposed stormwater system (where runoff originates (e.g. roofs, roads, parking lots etc.), its conveyance within the project, its treatment, and its conveyance from the project to the receiving water body).
- Profile along the centerline of the principal spillway/outfall pipe extending below the protected outfall or to the downstream structure.
- Elevations of the "water quality" surface, temporary storage water surface, and the 10-year and 100- year storms.
- Stage-storage table for each SCM.
- If SCM is to be used to treat construction site runoff, provide steps necessary to restore SCM to original design condition.
- All necessary construction specifications.
- Sequence of construction.
- Individual drainage areas for each stormwater SCM.

- Construction drawings and details for permanent measures.
- Size and location of culverts.
- Size and location of subsurface drainage conveyances.
- Disclosure of party ultimately responsible for operation and maintenance of the stormwater system.
- Signed O&M Agreement

***Stormwater Calculations:***

- Narrative description of calculations (methods, variables, assumptions, etc.) and results.
- Stormwater SCMs designed in accordance with North Carolina Department of the Environment and Natural Resources-Division of Water Quality's Manual of Stormwater Best Management Practices, and any supplements to the SCM Design Manual issued by the City of Kings Mountain.
- Time of concentration for pre/post development conditions.
- Pre-construction and post-construction runoff calculations for each outlet from the site (at peak discharge points).
- Pre-construction and post-construction design calculations and hydrographs.
- Design calculations of culverts and storm sewers.



## **As-Built Drawing Checklist:**

*The following is a checklist designed to ensure all requirements for the As-Built construction drawings have been met. For more information on the drawings in general, please refer to the detailed description above.*

- Vertical elevation, horizontal location, and size of all:
  - Sanitary and storm sewers
  - Manholes
  - Inlets
  - Junction boxes
  - Detention basins
  - Other appurtenances or elements of the sewerage and storm drainage systems
- Horizontal location and size of water lines and location and description of valves with dimensional ties:
  - Water lines
  - Valves
  - Fire hydrants
  - Other appurtenances or elements of the water distribution system
- Location of all street rights-of-way, alignments, widths, and vertical elevations
- All control points and monumentation.



## Final Plat Checklist:

*The following is a checklist designed to ensure all requirements for the Final Plat have been met. For more information on the Final Plat in general, please refer to the detailed description above.*

- Scaled drawing of entire project with listed phases (not less than 1" = 200')
- Bar Graph Scale
- Name of Development
- Name of map type (Sketch, Preliminary, Final)
- Owner's name, address, daytime phone
- Developer's name, address, daytime phone
- Map preparer name address, daytime phone (if different from developer)
- Date of map (initial or revised)
- Zoning District(s) and watershed classification of property and adjacent properties SR
- Plat Book or Deed Book References
- Names of adjoining property owners
- Tax map, block and parcel number
- Vicinity map at a scale of 1" = 2000' Shown at
- Any jurisdictional lines
- North arrow
- Distances around project boundaries, bearings, distances and curve data (existing property  lines)
- Tie at least one corner to NC grid and provide grid coordinates where at least one of two control monuments needed are within 2000' feet of the boundary or tie to nearest street intersections
- Name and Location of any property on National Register of Historic Places or locally designated historic property
- Existing right of way lines for road or rail
- Proposed right of way lines and width dimension

- Right of way width dimension from centerline of existing public streets
- Proposed sidewalks
- Water courses, wetlands, lakes, streams, marshes
- Proposed common area or open space
- Existing and proposed topography of tract and 100 feet beyond property showing existing contour intervals of no greater than 5 feet (2 feet where available) and labeling at least two contours per map and all others at 10-foot intervals from sea level
- Proposed lot lines and dimensions
- Acreage in total tract
- Acreage in Public Greenways and other open space
- Total number of lots proposed
- Linear feet in streets
- Area in newly dedicated right of way
- Lots sequenced or numbered consecutively
- Existing and proposed street names
- Location, dimension and type of all easements
- Average size of lot
- Setbacks for zoning district
- Sketch Plan approval box