

6 APPLICATION CHECKLISTS

(last revised 7/1/14)

6.1 INTRODUCTION

The following section has been provided to assist developers and engineers with the preparation of the various applications required by the Town of Wake Forest.

6.2 DEVELOPMENT PERMIT

6.2.1 GENERAL SUBMITTAL REQUIREMENTS

Each application for a Development Permit shall be accompanied by a plan in duplicate, drawn to scale, one copy of which shall be returned to the owner upon approval. If the property to be developed requires the use of a septic tank, the plan shall be accompanied by a letter of approval from the Wake County Health Department. The plan shall include:

- A. The shape and dimensions of the lot on which the proposed building or use is to be constructed or conducted;
- B. The location of the said lot with respect to adjacent rights-of-way & easements;
- C. The shape, dimensions, and location of all buildings, existing and proposed, on the said lot;
- D. The nature of the proposed use of the building or land, including the extent and location of the use, on the said lot;
- E. The location and dimensions of off-street parking and loading space and the means of ingress and egress to such space, and
- F. Any other information which the Administrator may deem necessary for consideration in enforcing the provisions of this ordinance.
- G. If any portion of a lot is in a Special Flood Hazard Area, the application for a development permit shall also include plans drawn to scale showing the nature, location, dimensions, and elevations of the area in question. If an encroachment of the Special Flood Hazard Area is proposed, a Floodplain Development Permit, in accordance with Section 15.7.3 of the UDO, is required as well.
- H. Plan Review Applications and other Planning forms are available online at:
<http://www.wakeforestnc.gov/forms-applications.aspx>
<http://www.wakeforestnc.gov/planning.aspx>

6.2.2 SIGNAGE PLAN

When a Development Permit is required by the UDO for erecting, placing, rebuilding, reconstructing or moving any sign, a Signage Plan shall be submitted with the following plan or plans drawn to scale:

- A. The dimensions of the sign.
- B. The dimensions of the sign supporting members.
- C. The maximum and minimum height of the sign.

- D. The proposed location of the sign in relation to the building and/or physical surroundings.
- E. The Underwriters' Laboratory label number shall be required prior to erecting any electrical sign.

6.3 TREE CLEARING PERMIT

Developers are to comply with the Tree Protection ordinance as described in the Town's Unified Development Ordinance (UDO), Section 8 and Section 15.7.1.

6.3.1 SUBMITTAL REQUIREMENTS

An application for a Tree Clearing Permit may be filed only by the owner(s) of the property in question or an authorized agent thereof. An application for a Tree Clearing Permit shall be filed with the Administrator and shall be accompanied by a Vegetation Protection Plan that shall include, at a minimum, the following information on a sheet size no larger than 24 by 36 inches at a minimum scale of one inch equals 50 feet:

- A. Vicinity map showing the location of the tract at a readable scale;
- B. A map of the entire tract, including the property boundary of the entire tract by courses and distances with references to true meridian and the location and dimension of all on-site and adjacent off-site easements (e.g., drainage, utility, public access, aerial utility, conservation, permanent and temporary construction easements);
- C. General information about the tract, including but not limited to the owner of the tract; the current zoning of the tract, the area of the tract, and the conditional-use zoning conditions, planned unit development master plan requirements, if applicable;
- D. The location and use(s) of all existing building(s) on the tract;
- E. The owner, current zoning and present use of all contiguous properties (including property on opposite side of adjoining streets);
- F. The general classification of all existing and proposed adjacent roadways and the ultimate right-of-way boundaries associated with these roadways;
- G. The location and width of all future/existing buffers and associated vegetation protection areas, including riparian buffers, perimeter buffers and perimeter streetyards;
- H. The proposed limits of timbering activities, including the location and extent of all tree protection fencing as required by this section;
- I. The Administrator may reduce or waive the requirements for a Vegetation Protection Plan in situations where it can be demonstrated that all vegetation removal will take place outside of required vegetation protection areas.

6.4 LAND DISTURBANCE PERMIT

Detailed requirements for erosion and sedimentation control may be found in Section 4 of Appendix B and online at:

http://www.wakeforestnc.gov/residents-engineering_erosionandsedimentcontrol.aspx

Required Erosion and Sedimentation Control Plans must contain at least all of the items specified on the Town of Wake Forest Erosion and Sedimentation Control Checklist, including administrative fees, pin number, bonds, a copy of deed/land owner approval, engineering drawings, maps, bonding, basin drainage area, existing soils, one set of calculations showing MUSLE (modified universal soil loss

equation), 401/404 signed permits if required, NCDOT Driveway permits, NCDOT easements, property easements/access, and narrative statements as needed to adequately describe the proposed development of the tract and the measures planned to comply with the erosion and sedimentation control regulations of this article. Plan content may vary to meet the needs of specific site requirements. Detailed guidelines for plan preparation may be obtained from the Town of Wake Forest Engineering Department upon request.

6.4.1 SUBMITTAL REQUIREMENTS

Required Information	Completed
Fees – Due prior to 1st review.	
Financial Responsibility Ownership Form	
E&SC Calculations (1 copy)	
Stormwater Calculations (1 copy)	
Stormwater Maintenance and Operation Agreement (due upon completion)	
NCDOT Encroachment/Driveway Permit	
DWR 401 Permit	
USACOE 404 Permit	
All Plans for Review (see below for minimum requirements)	
Location/Vicinity Map	
Existing and Proposed Contours (including offsite)	
Phased Grading Plan (minimum phases to include "initial," "midway," and "final")	
Boundaries of Land Disturbance (clearly delineated with calculated acreage)	
Soils Area Map	
Drainage Area Delineation Map (existing site and final site)	
Existing Storm Utilities Map (including all utility easements, storm drainage, basins and level spreaders)	
Properties Map (including existing lot lines, lot numbers and surrounding property owners)	
Hydrology Map (including stream centerlines, stream buffers, wetlands and floodplains)	
Temporary Erosion Control Plan	
1. Erosion Control Measure Calculations (including sediment basins, sediment traps, skimmers, ditches, etc.) – must use Revised Universal Soil Loss Equation* and/or Modified Universal Soil Loss Equation** for entire site	
2. Skimmer Basins (required for drainage areas over 5 acres)	
3. Construction Entrance (50 foot minimum)	
4. Silt Fences (metal posts with wire)	
5. Hardware Cloth Outlets (special sediment control fences)	
6. Tree Protection Fencing (with "Do not enter Tree Protection Area" signs in English and Spanish) – required around	

	perimeter of property, at buffer zones, and in tree save areas (around the drip line)	
7.	Diversion Ditches	
8.	Inlet Protection	
9.	Erosion Details per NCDEMLR Erosion and Sediment Control Planning and Design Manual, latest edition	
	Permanent Erosion/Stormwater Control Plan	
1.	Stormwater Calculations (including pre and post-development peak flow (Q) and percent impervious surface)	
2.	Proposed Stormwater Easements (recorded)	
3.	Maintenance and Operation Agreement	
4.	As-Builts (including length and size of stormwater ponds/bio-cells, level spreaders, storm drainage inverts, tops, grates, slopes, etc.)	
5.	Permanent Ditches with Matting	
6.	Stormwater Details per NC Division of Water Resources Stormwater Best Management Practices Manual, latest edition	
7.	Stabilization Timeframe Chart	

***Revised Universal Soil Loss Equation (RUSLE)**

RUSLE: $A = R * K * LS * C * P$

Where : A = Longtime average annual soil loss

R = Rainfall runoff factor

K = Soil Erodability Factor

LS = Topographic Factor, where L represents the length and S represents the slope steepness

C = Cover management factor

P = Support practice

****Modified Universal Soil Loss Equation (MUSLE)**

MUSLE: $T = 95 * (V * Q_p)^{0.56} * K * LS * C * P$

Where T = Sediment yield, tons per storm event

V = volume of runoff, acre-feet

Qp = Peak flow, cfs

K, LS, C, & P are the same as above for RUSLE

6.5 FLOODPLAIN DEVELOPMENT PERMIT

Developers are to comply with the Town’s Flood Damage Prevention requirements as described in the Unified Development Ordinance (UDO), Section 12.4 and Section 15.7.3. Additional information is available online at:

<http://www.wakeforestnc.gov/forms-applications.aspx>
<http://www.wakeforestnc.gov/planning.aspx>

6.5.1 SUBMITTAL REQUIREMENTS

Applications for a Floodplain Development Permit shall be made to the Administrator prior to any development activities located within Special Flood Hazard Areas and shall meet the requirements found in Chapter 15 of the UDO. In addition to a Flood Development Permit, a Letter of Map Revision through the applicable state or federal agency may be required. The following items shall be presented to the Administrator with the Floodplain Development Permit application:

- A.** A plan drawn to scale which shall include, but shall not be limited to, the following: specific details of the proposed floodplain development:
 1. The nature, location, dimensions, and elevations of the area for development/disturbance; existing and proposed structures, utility systems, grading/pavement areas, fill materials, storage areas, drainage facilities, and other development;
 2. The boundary of the Special Flood Hazard Area as delineated on the FIRM or other flood map as determined in Section 12.4 of the UDO or a statement that the entire lot is within the Special Flood Hazard Area;
 3. Flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined in Section 12.4 of the UDO;
 4. The boundary of the floodway(s) or non-encroachment area(s) as determined in Section 12.4 of the UDO;
 5. The Base Flood Elevation (BFE) or Future Conditions Flood Elevation where provided as set forth in Section 12.4 of the UDO;
 6. The old and new location of any watercourse that will be altered or relocated as a result of proposed development;
 7. Certification of the plot plan by a registered land surveyor or professional engineer.
- B.** Proposed elevation and method thereof, of all development within a Special Flood Hazard Area including but not limited to:
 1. Elevation in relation to mean sea level of the proposed reference level (including basement) of all structures;
 2. Elevation in relation to mean sea level to which any non-residential structure in Zone AE, A or X (Future) will be flood-proofed; and
 3. Elevation in relation to mean sea level to which any proposed utility systems will be elevated or floodproofed.
- C.** If floodproofing, a Floodproofing Certificate (FEMA Form 81-65) with supporting data and an operational plan that includes, but is not limited to, installation, exercise, and maintenance of floodproofing measures.
- D.** A Foundation Plan, drawn to scale, which shall include details of the proposed foundation system to ensure all provisions of this ordinance are met. These details include but are not limited to:

1. The proposed method of elevation, if applicable (i.e., fill, solid foundation perimeter wall, solid backfilled foundation, open foundation on columns/posts/piers/piles/shear walls);
2. Openings to facilitate equalization of hydrostatic flood forces on walls, in accordance with Section 12.4.2.B.3.d of the UDO, when solid foundation perimeter walls are used in Zones A, AE and X (future);
3. Usage details of any enclosed areas below the regulatory flood protection elevation.
4. Plans and/or details for the protection of public utilities and facilities such as sewer, gas, electrical, and water systems to be located and constructed to minimize flood damage;
5. Copies of all other Local, State and Federal permits required prior to floodplain development permit issuance (Wetlands, Endangered Species, Erosion and Sedimentation Control, Riparian Buffers, Mining, etc.)
6. Documentation for placement of Recreational Vehicles and/or Temporary Structures, when applicable, to ensure the provisions of Section 12.4.2.B.5 of the UDO are met.
7. A description of proposed watercourse alteration or relocation, when applicable, including an engineering report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map (if not shown on plot plan) showing the location of the proposed watercourse alteration or relocation.

6.6 STORMWATER MANAGEMENT PERMIT

The purpose of this section is to establish the minimal plan submittal requirements for stormwater plan review and approval. Minimal plan submittal requirements for stormwater management permit is described in Section 2 of this Manual and online at:

<http://www.wakeforestnc.gov/npdes-phase-ii.aspx>

6.6.1 SUBMITTAL REQUIREMENTS

Two complete sets of site plan drawings and two complete sets of sitework calculations shall be submitted to the Town Engineering Department for review and approval, and shall include:

A. Certification Requirements

The following certifications shall appear on all plans.

1. Designer's Certification

"I hereby certify that, to the best of my ability, this plan has been prepared in accordance with the latest Town of Wake Forest Standards and Specifications for Stormwater Management and Stormwater Policy of the Town Code of the Town of Wake Forest."

Signature: _____

Printed Name and Title: _____

Date: _____ Registration Number: _____

2. Owner's/Developer's Certification

"I/We hereby certify that all site construction, drainage and grading will be done pursuant to this plan and that the applicable Stormwater Management conditions and requirements of the Town of Wake Forest, the State of North Carolina and the Federal Government and its agencies are hereby made part of this plan."

Signature: _____

Printed Name: _____

Title: _____ Date: _____

- B. Stormwater Management Permit Application, Supplement Forms, and Checklists:** The stormwater management permit application package shall include the Stormwater Permit Application, Checklist, Supplement Forms, calculations, etc. as discussed in Appendix B, Section 2 Stormwater Management and found in Section 2.12, Stormwater Appendix.
- C. Additional Requirements:** Approval of Stormwater Management Plans and Calculations by the Town of Wake Forest Engineering Department does not complete the Town of Wake Forest review process. All other applicable Town Departments, County, State, and Federal agencies must also approve the plan as warranted. It shall be the sole responsibility of the Owner/Developer/Designer to acquire all applicable approvals.

CHECKLIST FOR STORMWATER STANDARDS

Town of Wake Forest

OFFICE USE ONLY:
 File Number: _____
 Number of Plan Sets Received: _____
 Date of Submittal: _____
 Reviewer's Name: _____

Please provide complete documentation and details where applicable. NO PLAN SUBMITTAL will be complete unless all information is filled out completely. Indicate *"Not Applicable"* where appropriate.

Name of Development: _____

Owner Information:
 Name: _____
 Address: _____

 Voice Number: _____ Fax Number: _____
 E-mail address: _____

Developer Information:
 Name: _____
 Address: _____

 Voice Number: _____ Fax Number: _____
 E-mail address: _____

Designer Information:
 Name of Company: _____
 Address: _____

 Project Designer: _____ Registration Number: _____
 Voice Number: _____ Fax Number: _____
 E-mail Address: _____

Plan Requirements (Indicate “N/A” where appropriate):

Yes	No	N/A	Sheet No.	Description	Remarks
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Development Name	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Owner	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Design Firm	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Sealed, Signed and Dated	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Sheet Number	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Date	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Revision Numbers and Dates	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Designer’s Certification	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Owner’s/Developer’s Certification	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	North Arrow	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Property Lines	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Legend	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Vicinity Map	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Scale	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Adjacent Property Owners	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Existing Streets, Buildings, etc.	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Wooded Limits	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Wetland Limits	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Easements	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Land Use of Surrounding Areas	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Original Contours (2-foot intervals)	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Actual Field Survey	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Town/USGS Topographical Data	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Existing Streams, Lakes, etc.	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Proposed Contours (2-foot intervals)	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Size and Location of Existing Culverts	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Size and Location of Proposed Culverts	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Submitting Two Set of Plans	_____

Calculation Requirements:

Yes	No	N/A	Sheet No.	Description	Remarks
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Development Name	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Owner	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Design Firm	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Sealed, Signed and Dated	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Submitting Two Sets of Calculations	_____

Piped Systems:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Designed for 10-yr Storm	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Analyzed for 25-yr Storm	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Minimum Velocity = 2.5 FPS	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Minimum Cover = 2 Feet	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Headwall or Flared End Sections	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Energy Dissipater Calculations	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Evaluation of Downstream System	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Catch Basin Designed for 2-yr Storm	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Public Easement Terminates at the end of the Stilling Basin or Outlet Protection	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Private Easement Begins at the end of the Stilling Basin or Outlet Protection	_____

Open Channel Systems:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Designed for 10-yr Storm	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Analyzed for 25-yr Storm	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Side Slopes 3 to 1 or flatter	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Minimum Bottom Width = 3 Feet	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Velocity Check (Liners provided, If Needed)	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Evaluation of Downstream System	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Public Easement Ends and Private Easement Begins at the Beginning of the Ditch Section	_____

Other Plan Submittals:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	Wake Forest Erosion Control	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	NCDOT	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	US Army Corps of Engineers	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	NCDWR	_____

SUBMITTAL WORKSHEET FOR DRY DETENTION AND WET RETENTION FACILITIES

The Town of Wake Forest will follow the Division of Water Quality – 401 Wet Detention Basin Design for all detention and retention basins within the Town’s jurisdiction. Please provide complete documentation and details where applicable. A complete stormwater management plan submittal includes a detention/retention basin worksheet for each basin, design calculations, plan and specifications showing all basin and outlet structure details, and a fully executed operation and maintenance agreement. An incomplete submittal package will result in a request for additional information and will substantially delay final review and approval of the project. Indicate “Not Applicable” where appropriate if design is a dry detention basin.

I. Project Information (please complete the following information):

Project Name: _____

For projects with multiple basins, specify which basin this worksheet applies to: _____

Basin Bottom Elevation	_____	ft.	(average elevation of the floor of the basin)
Permanent Pool Elevation	_____	ft.	(elevation of the orifice invert out)
Temporary Pool Elevation	_____	ft.	(elevation of the outlet structure invert in)
Permanent Pool Surface Area	_____	sq. ft.	(water surface area at permanent pool elevation)
Drainage Area	_____	ac.	(on-site and off-site drainage to the basin)
Impervious Area	_____	ac.	(on-site and off-site drainage to the basin)
Permanent Pool Volume	_____	cu. ft.	(combined volume of main basin and forebay)
Temporary Pool Volume	_____	cu. ft.	(volume detained on top of the permanent pool)
Forebay Volume	_____	cu. ft.	
SA/DA used	_____		(surface area to drainage area ratio)
Diameter of Orifice and Number	_____ / _____	in.	(draw down orifice diameter and number of)

II. Required Items Checklist

The following checklist outlines design requirements per the Stormwater Best Management Practices Manual (N.C. Department of Environment, Health and Natural Resources, November 1995) and Administrative Code Section: 15 A NCAC 2H .1008. Initial in the space provided to indicate the following design requirements have been met and supporting documentation is attached. *If a requirement has not been met, attach an explanation of why.*

_____	The temporary pool controls runoff from the 1 inch storm event
_____	The basin length to width ratio is greater than 3:1
_____	The basin side slopes are no steeper than 3:1
_____	A submerged and vegetated perimeter shelf at less than 6:1 is provided
_____	Vegetation to the permanent pool elevation is specified
_____	An emergency drain is provided to drain the basin
_____	The permanent pool depth is between 3 and 6 feet (required minimum of 3 feet)
_____	The temporary pool draws down in 2 to 5 days
_____	The forebay volume is approximately equal to 20% of the total basin volume
_____	Sediment storage is provided in the permanent pool
_____	Access is provided for maintenance
_____	A minimum 30-foot vegetated filter is provided at the outlet
_____	A site specific operation and maintenance (O&M) plan is provided
_____	A vegetation management/mowing schedule is provided in the O&M plan
_____	Semi-annual inspections are specified in the O&M plan
_____	A debris check is specified in the O&M plan to be performed after every storm event
_____	A specific sediment clean-out benchmark is listed (elevation or depth) in the O&M plan
_____	A responsible party is designated in the O&M plan

6.7 SITE PLAN APPLICATIONS

6.7.1 SITE MASTER PLAN

The Site Master Plan is intended to provide a detailed two-dimensional drawing that illustrates all of the required site features including the following information:

A. Existing Conditions Information

1. Existing developed conditions of the property including:
 - a. Existing structures with built year & historical significance;
 - b. Cemeteries;
 - c. Bridges or culverts;
 - d. Utilities (water & sewer, drainage, storm water, electrical, cable, fiber optics, etc.);
 - e. Driveways & curb cuts;
 - f. Sidewalks, surface parking & loading areas;
 - g. Public and private streets with pavement width;
 - h. Any known contaminated soils or hazardous materials;
 - i. Existing & proposed easements including but not limited to, electric, water, sewer, storm, drainage, private streets, gas, or other service related easements including location, width & purpose.
2. Existing natural features of the property including:
 - a. Forest stands or trees of a uniform size and species;
 - b. Specimen trees of varying sizes and species, particularly free standing or open-grown or field grown trees;
 - c. Previously documented rare or protected species' habitats.
 - d. Riparian & watershed boundaries/buffers, wetlands, watercourses with name and direction of flow;
 - e. State & federal reports regarding wetlands and stream buffer delineations;
 - f. Special flood hazard areas;
 - g. Wood line & vegetation type with location of all specimen trees;
 - h. Soils map;
 - i. Existing contour lines at a minimum of two (2) foot contour intervals.

B. General Information

1. Vicinity Map of area showing location of property & existing surrounding site conditions at a scale of not less than 1 inch = 1,000 feet;
2. North arrow on all sheets;
3. Boundaries of the proposed property to be developed;
4. Owner & developers contact information;
5. Layout standards, certificates & details from Section 6.11 of the MSSD.
6. Five paper copies of plans at a scale not less than 1 inch = 50 feet.

7. Administrative fees.

C. Site & Structure Information

1. Site data information (e.g., zoning, land use, wake county tax pin number, setbacks, acreage).
2. Development calculations (e.g., density, lot dimensions, proposed building areas, number & size of structure(s), number of parking spaces, estimated impervious surface area calculations) in sufficient detail to show compliance with the Wake Forest UDO.
3. Buildings, parking areas & driveways on site & adjacent properties;
4. Street and/or right-of-way locations with street sections;
5. Location of sidewalks, pedestrian ways & open space areas;
6. Property lines & setback lines.
7. Watercourse, land use & screening buffer areas.
8. Site landscaping plan (in conceptual form only).
9. Lighting plan (in conceptual form only);
10. Location of all Special Flood Hazard Areas (if applicable).
11. Conceptual location of subsurface utilities. Detailed engineering drawings such as (e.g. water & sewer) & on-site stormwater facilities are not required for Master Plans, except that horizontal water & sewer locations shall be required by the City of Raleigh Public Utilities Department.

6.7.2 SITE CONSTRUCTION PLAN

A Construction Plan is intended to provide a full & complete set of engineered drawings necessary for final permitting & construction that illustrates all of the required site features including the following information:

A. Existing Conditions Information: See 6.7.1.A above for required information.

B. General Information

1. Vicinity Map of area showing location of property & existing surrounding site conditions at a scale of not less than 1 inch = 1,000 feet;
2. North arrow on all sheets;
3. Boundaries of the proposed property to be developed;
4. Owner & developers contact information;
5. Layout standards, certificates & details from Section 6.12 of the MSSD.
6. Five paper copies of plans at a scale not less than 1 inch = 50 feet.
7. Administrative fees.

C. Site & Structure Information

1. Site data table & illustration of:
 - a. Zoning & zoning case number;
 - b. Proposed land use
 - c. Wake county tax pin number

- d. Setbacks,
 - e. Acreage.
 - f. Watershed & watercourse areas.
2. Development Calculations & Illustration of:
 - a. Density
 - b. Lot dimensions
 - c. Proposed number of buildings their height & size of structure(s),
 - d. Number of parking spaces required & proposed,
 - e. Impervious surface area calculations (if applicable)
 3. Buildings, parking areas & driveways on site & adjacent properties;
 4. Location of sidewalks, pedestrian ways & open space areas;
 5. Location & method of garbage containment & disposal;
 6. Property lines & setback lines.
 7. Location and height of all retaining walls;
 8. Watercourse, land use & screening buffer areas.
 9. Site landscaping plan (see 6.8 & Chapter 8 of UDO for details).
 10. Lighting plan (see Chapter 10 for details).
 11. Location & dimensions of all easements on & abutting the property.
 12. Location of all Special Flood Hazard Areas (if applicable).
- D. Streets & Traffic Control**
1. Linear footage of all public streets.
 2. Street and/or right-of-way locations with street sections;
 3. Provisions & design of all on & off site roadway improvements.
 4. All traffic control signage & it's conformance to the MSSD.
 5. Plan-profile drawings at a scale of 1 inch = 50 feet showing street grades & cross sections.
- E. Utilities**
1. Detailed stormwater, grading & erosion control information per the MSSD.
 2. Detailed water & sewer information per City of Raleigh Public Utilities.
 3. Linear footage of all storm drainage facilities;
 4. Tree Save Areas & protection measures.
- F. Landscape Plan:** When a Site Construction Plan review is required by the UDO, the Construction Plan shall include a detailed Landscape Plan with the following elements:
1. Existing vegetation and landscaping including the location, condition, and diameter at breast height (DBH) of all specimen trees that are 20" DBH and greater and all native flowering trees 8" DBH and greater including their critical root zones; and, any designated Historic or landmark trees;

2. Locations of new planting material with a plant list that includes common and botanical plant names, baseline requirement (canopy or understory), quantity, caliper, height and spacing;
3. Locations and dimensions of planting areas, parking lot islands, streetyards and bufferyards, areas of reforestation, and the location and dimensions of walls, berms, and fencing;
4. The delineation of existing vegetation which is to be maintained or preserved as a Tree Save Area (“TSA”) to meet or supplement the requirements of this section including their critical root zones;
5. Locations of waterbodies and required watercourse buffers, overhead and underground utilities, easements, sight triangles, and the limits of land disturbance, clearing, grading, and trenching;
6. All applicable details, specifications, procedures and schedules for new tree and shrub installation, transplanting, tree wells, tree staking, etc.;
7. The location and description of all tree protection measures which are to be utilized;
8. The planting schedule which is to be followed for the installation of all new plant material;
9. All notes and certificates required for any Tree Clearing activity.

G. Landscape Maintenance Plan: The following statement shall be placed on the landscape sheet prior to plan approval. This statement must be individualized based on each site and/or subdivision plan. This should be done by a certified landscape architect.

“The owners of the property and their agents, heirs, or assigns shall be responsible for the installation, preservation, and maintenance of all planting and physical features shown on this plan. Failure to maintain all plantings in accordance with this plan may constitute a violation of this Ordinance and may result in fines. The owners shall be responsible for maintenance of the vegetation, including but not limited to:

1. *Fertilization (optional).*
2. *Pruning within limits (applicant must define limits).*
3. *Pest control.*
4. *Mulching.*
5. *Mowing (if any).*
6. *Protection of the root zones from equipment, construction and related materials, etc.*
7. *Method of irrigation.*
8. *Other continuing maintenance operations.”*

6.7.3 FINAL PLAT

See Section 6.9.1 below

6.8 ARCHITECTURAL DESIGN REVIEW

6.8.1 SUBMITTAL REQUIREMENTS

All applications for Architectural Design Review must submit a Sketch Plan and Building Elevations for Design Review to the Administrator and the Design Review Board (if applicable) in accordance with Chapter 15 of the UDO. Building Design Standards for specific Urban Districts and requirements for specific Building Types (Civic/Institutional, Residential, Commercial, & Industrial) can be found in Chapter 5 of the UDO. In addition to these requirements, the submitted application should include the following:

A. General

1. A location map with north arrow, dimensions of site boundaries, acreage, information about ownership and uses, and existing or potential uses of adjacent property;
2. Scaled drawings of the floor plans. Include square footage figures for each floor. Show all proposed door and window locations;
3. One 24" x 36" rendered elevations of each façade indicating heights, floor levels, and materials;
4. Illustrative perspective renderings of the proposed building(s), including at least one eye-level view from a public right-of-way and one view illustrating the character of any adjacent buildings in context;
5. One 18" x 24" color rendering of each façade is required. Rendered elevations should describe location and use of each color and material. Building materials/colors for roof roofing, siding, doors, windows, etc.
6. Administrative fee.

B. Overall Requirements: The application should provide evidence that clearly illustrates the following requirements have been met in the design of the building(s).

1. Varied roof line;
2. Unify individual storefronts in one building while varying the look and providing distinctiveness from storefront to storefront;
3. Facades greater than 100 feet interrupted by recesses, projections, windows, awning, arcades, color, texture, and/or material. All facades visible from the street or adjoining properties feature characteristics similar to the front;
4. Customer entrances featuring one or more – canopies, porticos, arcades, arches, wing walls, and planters;
5. High quality exterior building materials, e.g. brick, stucco, wood, stone tinted/textured decorative concrete masonry units, or similar materials;
6. Colors harmonious with surrounding development and that reflect the traditional concept of the town. Colors should be earth tone, muted, subtle, or neutral colors;
7. Trash containment devices located and/or screened so as not to be visible from streets or other properties. Screening of trash containment areas should match colors and materials used on building;
8. Mechanical and utility equipment located and/or screened so as not to be visible from streets or other properties, including equipment located on the roof.

6.9 SUBDIVISION APPLICATIONS

The purpose of this section is to provide a guide for the preparation of applications for Minor and Major Subdivisions in accordance with Chapter 15 of the UDO.

6.9.1 MINOR SUBDIVISIONS & FINAL PLAT

The following information shall be required in all applications for Minor Subdivisions and Final Plats.

- A. Zoning of Tract:** Zoning classification on the land to be subdivided and on adjoining land.
- B. Boundary:** The exact boundary lines of the tract(s) to be subdivided (fully dimensioned by lengths and bearings) and the location of intersecting boundary lines of adjoining lands, with adjacent subdivisions identified by official maps. The square footage and acreage of the resultant lots shall also be included.
- C. Monument and Control Corners:** The accurate locations and descriptions of all monuments, markers, and control points.
- D. Survey Data:** Sufficient data to determine readily and reproduce on the ground every straight or curved boundary line, street line, lot line, right-of-way, easement line, and setback line, including dimensions, bearings, or deflection angles, radii, arcs, chords, central angles, and tangent distances for the center line of curved streets and curved property lines that are not the boundary of curved streets. All dimensions shall be measured to the nearest one-hundredth (1/100th) of a foot and all angles to the nearest one-half (1/2) minute.
- E. Elevation Flood Data:** Base flood elevation data shall be provided for subdivision proposals greater than fifty (50) lots or five (5) acres, whichever is less.
- F. Streets:** The widths, and names where appropriate, of all proposed streets and alleys, and of all adjacent streets and alleys, and easements which shall be properly located.
- G. Easements:** The location of all rights-of-way, easements, and areas to be dedicated to public use with the purpose of each stated.
- H. Names and Vicinity Map:** The name of the owner, and the surveyor, landscape architect, engineer, and their respective addresses and telephone numbers. Also, the name of the subdivision and a sketch vicinity map showing relationship between subdivision and surrounding areas at a legible scale. The vicinity map should be drawn to a scale of 1" = 800' and a north arrow shown.
- I. Building Setback Lines:** Minimum building setback lines.
- J. Block and Lot Numbers.** The blocks numbered consecutively throughout the entire subdivision and the lots numbered consecutively throughout each block.
- K. Deed Restrictions on the Property:** A statement indicating whether deed restrictions exist, the subject, and location.
- L. Date:** Date of the survey and plat preparation, a north arrow indicating whether true or magnetic, and graphic scale.
- M. Administrative Fees:** The appropriate filing fees, as determined by the Board of Commissioners, shall be paid to the Town of Wake Forest, North Carolina for each submittal of an administrative final plat.
- N. Required Certificates/Approvals:** The certificates and approvals listed below signed, stamped and dated appropriately.

Certificate of Ownership and Dedication

I hereby certify that I am the owner of the property shown and described hereon, which is located in the subdivision jurisdiction of Wake Forest, and that I hereby adopt this plan with my free consent, establish minimum building setback lines, and dedicate all streets, alleys, walks, parks, and other sites and easements to public or private use as noted.

_____ Date _____ Owner(s)

Certificate of Survey and Accuracy

I _____, certify that this plat was drawn under my supervision from (an actual survey made under my supervision) (Deed description recorded in Book _____, Page _____, etc.); (other); that the boundaries not surveyed are shown as broken lines plotted from information found in Book _____, Page _____; that this plat was prepared in accordance with G.S. 47_30 as amended. Witness my original signature, registration number and seal this the _____ day of _____ A.D., 20 ____.

_____(Surveyor)

Registration Number (SEAL OR STAMP)

Approval from Wake County Health Department

If septic tanks are to be installed, a letter from the Wake County Health Department will be required indicating their approval of the subdivision.

_____ Date _____ Approving Authority

Approved for Recording by the Town of Wake Forest

State of North Carolina – County of Wake

I, _____, Review Officer of the Town of Wake Forest, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording.

_____ Date _____ Town Clerk

6.9.2 MAJOR SUBDIVISION – MASTER PLAN

The Subdivision Master Plan is intended to provide a detailed two-dimensional drawing that illustrates all of the required site features including the following information:

A. Existing Conditions Information: See 6.7.1.A above for required information.

B. General Information

1. Vicinity Map of area showing location of property & existing surrounding site conditions at a scale of not less than 1 inch = 1,000 feet;
2. North arrow on all sheets;
3. Boundaries of the proposed property to be developed;
4. Proposed name of subdivision which shall not have the same spelling as or be pronounced similar to the name of any other subdivision located within the Town's jurisdiction.
5. Owner & developers contact information;
6. Layout standards, certificates & details from Section 6.11 of the MSSD.
7. Five paper copies of plans at a scale not less than 1 inch = 50 feet.
8. Administrative fees.

C. Site Information

1. Site data information (e.g., zoning, land use, wake county tax pin number, setbacks, acreage).
2. Development calculations (e.g., density, lot dimensions, estimated impervious surface area calculations) in sufficient detail to show compliance with the Wake Forest UDO.
3. Street and right-of-way locations with street sections;
4. Location of sidewalks & pedestrian ways.
5. Proposed plans & illustration of parks & open space areas per Chapter 7 & means of ownership & maintenance.
6. Property lines & setback lines.
7. Watercourse, land use & screening buffer areas.
8. Site landscaping plan (in conceptual form only).
9. Lighting plan (in conceptual form only);
10. Location of all Special Flood Hazard Areas (if applicable).
11. Conceptual location of subsurface utilities. Detailed engineering drawings such as (e.g. water & sewer) & on-site stormwater facilities are not required for Master Plans, except that horizontal water & sewer locations shall be required by the City of Raleigh Public Utilities Department.

D. Standard Master Plan Layout

	Vicinity Map			
		See Detail C	See Detail B	See Detail A

REVISIONS		
NO.	DATE	DESCRIPTION

E. Detail A: Standard Title Block

<p>(NAME) PHASE (NO.)</p>	<p>SUBDIVISION (REVISION NO.)</p>	
Wake Forest, N.C.		
Owner(s)		
Address		
Phone		
E-mail Address		
NAME OF CONSULTING ENGINEERS	SURVEYED:	APPROVED:
	DRAWN:	DATE:
	CHECKED:	SCALE:

F. Detail B: Planning Board Approval Date

**RECOMMENDATION FOR APPROVAL
BY THE WAKE FOREST
PLANNING BOARD**

DATE _____

G. Detail B: Board of Commissioners Approval Date

**APPROVAL BY THE
WAKE FOREST BOARD
OF COMMISSIONERS**

DATE _____

6.9.3 MAJOR SUBDIVISIONS – CONSTRUCTION PLAN

The Subdivision Construction Plan is intended to provide a full & complete set of engineered drawings necessary for final permitting & construction that illustrates all of the required site features including the following information:

A. Existing Conditions Information: See 6.7.1.A above for required information.

B. General Information:

1. Vicinity Map of area showing location of property & existing surrounding site conditions at a scale of not less than 1 inch = 1,000 feet;
2. North arrow on all sheets;
3. Boundaries of the proposed property to be developed;
4. Proposed name of subdivision which shall not have the same spelling as or be pronounced similar to the name of any other subdivision located within the Town’s jurisdiction.
5. Owner & developers contact information;
6. Five paper copies of plans at a scale not less than 1 inch = 50 feet.
7. Layout standards, certificates & details from Section 6.12 of the MSSD.

8. Administrative fees.

C. Site Information:

1. Site data table & illustration of:
 - a. Zoning & zoning case number;
 - b. Proposed land use
 - c. Wake county tax pin number
 - d. Setbacks,
 - e. Acreage.
 - f. Watershed & watercourse areas.
2. Development calculations & illustration of:
 - a. Density
 - b. Proposed lot lines, size & dimensions
 - c. Impervious surface area calculations (if applicable)
3. Location of sidewalks & pedestrian ways.
4. Proposed plans & illustration of parks & open space areas per Chapter 7 & means of ownership & maintenance.
5. Property lines & setback lines.
6. Location and height of all retaining walls;
7. Watercourse, land use & screening buffer areas.
8. Landscaping & Street Tree plan (see 6.8 & Chapter 8 of UDO for details).
9. Lighting plan (see Chapter 10 for details).
10. Location & dimensions of all easements on & abutting the property.
11. Location of all Special Flood Hazard Areas (if applicable).

D. Streets & Traffic Control

1. Linear footage of all public streets.
2. Street and/or right-of-way locations with street sections;
3. Provisions & design of all on & off site roadway improvements.
4. All traffic control signage & it's conformance to the MSSD.
5. Plan-profile drawings at a scale of 1 inch = 50 feet showing street grades & cross sections.

E. Utilities

1. Detailed stormwater, grading & erosion control information per the MSSD.
2. Detailed water & sewer information per City of Raleigh Public Utilities.
3. Linear footage of all storm drainage facilities;
4. Tree Save Areas & protection measures.

F. Landscape Plan: When a Major Subdivision Construction Plan review is required by the UDO, the Construction Plan shall include a detailed Landscape Plan with the following elements:

1. Existing vegetation and landscaping including the location, condition, and diameter at breast height (DBH) of all specimen trees that are 20" DBH and greater and all native flowering trees 8" DBH and greater including their critical root zones; and, any designated Historic or landmark trees;
2. Locations of new planting material with a plant list that includes common and botanical plant names, baseline requirement (canopy or understory), quantity, caliper, height and spacing;
3. Locations and dimensions of planting areas, parking lot islands, streetyards and bufferyards, areas of reforestation, and the location and dimensions of walls, berms, and fencing;
4. The delineation of existing vegetation which is to be maintained or preserved as a Tree Save Area ("TSA") to meet or supplement the requirements of this section including their critical root zones;
5. Locations of waterbodies and required watercourse buffers, overhead and underground utilities, easements, sight triangles, and the limits of land disturbance, clearing, grading, and trenching;
6. All applicable details, specifications, procedures and schedules for new tree and shrub installation, transplanting, tree wells, tree staking, etc.;
7. The location and description of all tree protection measures which are to be utilized;
8. The planting schedule which is to be followed for the installation of all new plant material;
9. All notes and certificates required for any Tree Clearing activity.

G. Landscape Maintenance Plan: The following statement shall be placed on the landscape sheet prior to plan approval. This statement must be individualized based on each site and/or subdivision plan. This should be done by a certified landscape architect.

"The owners of the property and their agents, heirs, or assigns shall be responsible for the installation, preservation, and maintenance of all planting and physical features shown on this plan. Failure to maintain all plantings in accordance with this plan may constitute a violation of this Ordinance and may result in fines. The owners shall be responsible for maintenance of the vegetation, including but not limited to:

1. *Fertilization (optional).*
2. *Pruning within limits (applicant must define limits).*
3. *Pest control.*
4. *Mulching.*
5. *Mowing (if any).*
6. *Protection of the root zones from equipment, construction and related materials, etc.*
7. *Method of irrigation.*
8. *Other continuing maintenance operations."*

H. Standard Construction Plan Layout

	Vicinity Map			
		Detail D		
		Detail E	See Detail C	See Detail B
			See Detail A	

REVISIONS		
NO.	DATE	DESCRIPTION

I. Detail A: Standard Title Block

<p>(NAME) PHASE (NO.)</p>	<p>SUBDIVISION (REVISION NO.)</p>	
Wake Forest, N.C.		
Owner(s)		
Address		
Phone		
E-mail Address		
NAME OF CONSULTING ENGINEERS	SURVEYED:	APPROVED:
	DRAWN:	DATE:
	CHECKED:	SCALE:

J. Detail B: Approval Dates*

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST.	
Engineering Department	Date
Public Works Department	Date
Erosion & Sediment Control	Date
Fire Prevention	Date
Accessibility	Date
Planning Department	Date
City of Raleigh Public Utilities Department	Date

*Provide Detail B on all construction plan sheets.

K. Detail C: Installation Instructions

ALL PUBLIC FACILITIES, INCLUDING UTILITIES, SIDEWALKS, AND HANDICAP RAMPS ARE TO BE CONSTRUCTED ON ALL STREETS AS SPECIFIED BY TOWN STANDARDS. THESE FACILITIES HAVE BEEN APPROVED BY THE TOWN OF WAKE FOREST AND SHALL BE SO INSTALLED UNLESS A CHANGE IS APPROVED BY THE TOWN OF WAKE FOREST.

L. Detail D: Review Engineer Disclaimer

EXECUTION OF THIS CONSTRUCTION PLAT BY THE REVIEW ENGINEER FOR THE TOWN OF WAKE FOREST IN NO WAY LIMITS THE RESPONSIBILITY OF THE OWNER AND ENGINEER OF RECORD WITH REGARD TO COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL STANDARDS AND/OR CONDITIONS.

M. Detail E: Owner Certificate

OWNER HEREBY CERTIFIES AND AGREES TO TAKE SUCH ACTION AS MAY BE REQUIRED BY THE TOWN OF WAKE FOREST TO CORRECT ANY ERRORS, OMISSIONS OR NON-COMPLIANCE WITH TOWN STANDARDS AND/OR CONDITIONS DESCRIBED IN THIS CONSTRUCTION PLAT, INCLUDING RE-SUBMISSION OR RE-EXECUTION OF THIS CONSTRUCTION PLAT WITH THE APPROPRIATE CORRECTIONS AND/OR REVISIONS.

Owner

Date

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