GRADING, EROSION CONTROL AND STORMWATER PLAN SUBMITTAL REQUIREMENTS

Note: If project disturbs more than 1 acre or results in impervious area greater than 50% of the entire site acreage, and the project results in an increase in impervious area of 5,000 square feet or greater, the project shall meet the requirements of subsections 7-12-2(f) of the City of Asheville UDO.
Note: All erosion and sediment control shall be based upon the latest revision of the "Erosion and Sediment Control Planning and Design Manual" by NCDENR.

All Grading / Erosion Control and Stormwater plans shall include a "Development Data Block" containing the following information:

REQUIREMENT	Applicant to Check	N/A	Review Staff
Name of property owner(s)			
Name, address, and phone number of contact person			
PIN number(s) of property being developed			
Size of property in acres			
Amount of disturbed area in acres			
A table indicating the amounts of pre- and post-development pervious/impervious areas in acres, and the percentage of total parcel for pre- and post-development impervious areas			
Cut and fill volumes and indicate if waste or borrow areas are proposed			
Soil types			
Zoning district			
Approval block (3" x 5" white space) near the lower right corner of the front sheet			

All Grading / Erosion Control and Stormwater plans shall include the following:

REQUIREMENT	Applicant to Check	N/A	Review Staff
North arrow			
A 4"x 4" vicinity map at a maximum scale of 1"=1000'			
A graphic scale for the plan (engineering scale not greater than 50-scale)			
Show all existing property boundaries with dimensions			
PIN number(s) of adjacent properties			
Show existing and proposed topographical contours (2 ft. increments or less)			
Elevation labels shall be provided for contours at 20 ft intervals			
(Contour information shall be developed from actual field topographic survey, and must be tied to N.C. Grid and NAVD 1988. A copy of the sealed topographic survey will be required)			
Show and label all existing and proposed retaining walls with top/bottom of wall elevations and reference appropriate detail(s)			
Show and label all water courses and water bodies within aquatic buffers, along with their associated buffers			
If existing trees are to be removed from aquatic buffers, show and label location			
Show and label all existing and proposed structures and improved areas			
Show finished floor elevations for all buildings			
Show and label all flood fringe and floodway zones per 2010 FIRM panels			
Provide FEMA Elevation Certificates for any proposed structures, or any structures that have been substantially damaged or will be substantially improved, that are within the 100-year floodplain			
Show and label all existing and proposed utilities			
Show, label and dimension existing and proposed easements			
Show and label name and width of all adjacent streets			
Show and dimension all rights-of-way			

All Grading / Erosion Control plans shall include the following:

REQUIREMENT	Applicant to Check	N/A	Review Staff
Show and label all proposed silt fence(s) and reference appropriate detail(s)			
Show and label proposed temporary diversion ditches • All ditch sections shall be labeled with a ditch ID • Indicate the % slope of all ditch sections • Provide ditch cross-sections, indicating ditch depth, top and bottom widths and side slopes • Indicate type and installation requirements for in ditch erosion protection, such as riprap, geo-blankets, etc.			
Show and label proposed temporary sediment basins • Dimension basins • Indicate basin volume • Depict grading for basin by showing basin contours • Reference appropriate standard detail • Provide a maintenance schedule on the plans			
Show all inlet protection measures and reference appropriate detail(s)			
Show, label and dimension all proposed construction entrances and reference appropriate detail(s)			
Show any other sediment control devices not listed above and reference appropriate detail(s)			
For all slopes 4:1 or greater, show the method of stabilization, such as hydro-seeding, geo-blankets, etc.			
Provide a construction sequence for the erosion control measures			
Provide all pertinent grading and erosion control notes and details			
If sediment basins are proposed: volume, area, inflow and out flow calculations shall be submitted. *Calculations shall bear design professional seal and signature*			
Show and label all <u>existing</u> and <u>proposed</u> storm drainage structures • The type of structure shall be indicated • All structures shall be labeled with a structure ID • Invert elevations shall be indicated for all pipes in the structure • The elevation of the top of the structure shall be indicated • The appropriate standard detail shall be referenced			
Show and label all <u>existing</u> and <u>proposed</u> storm drainage pipes • The material type of pipe shall be indicated • All pipes shall be labeled with a pipe ID • The length, size and slope of all pipes shall be indicated • The appropriate standard installation detail shall be referenced			

REQUIREMENT	Applicant to Check	N/A	Review Staff
Show and label all existing and proposed permanent storm conveyance ditches • All ditch sections shall be labeled with a ditch ID • Indicate the % slope of all ditch sections • Provide ditch cross-sections, indicating ditch depth, top and bottom widths and side slopes • Indicate type and installation requirements for in ditch erosion protection, such as riprap, geo-blankets, etc.			
Provide profiles for storm drainage system which shall include the following: • Storm drainage structures and pipes with all information as indicated above • All crossings with other existing and proposed underground utilities with separation distances indicated • Existing and proposed grades			
Show and label all storm drainage dispersion devices			
Provide headwalls or end sections at all pipe outlets and reference appropriate detail(s)			
Provide all referenced details on the plans			

Additional items required for Grading / Erosion Control plan submittals:

REQUIREMENT	Applicant to Check	N/A	Review Staff
The Financially Responsible Person section of the grading application shall be completed and signed before the application will be accepted and processed			
For all projects that disturb over 5 acres, a security for re-vegetation in the amount of $3,500.00 per disturbed acre or part thereof is required prior to approval of the grading permit			
For projects with twenty-five thousand square feet of disturbance or greater, a contract is required between the financially responsible person and a licensed professional for erosion and sediment control compliance inspections. The executed and notarized Certificate of Inspection Agreement shall be submitted prior to approval of the grading permit.			
For pipes and ditches: provide capacity and velocity calculations *Calculations shall bear design professional seal and signature*			
For outlets: provide calculations for dispersion devices and reference the appropriate detail(s) *Calculations shall bear design professional seal and signature*			
For inlets on public streets: provide stormwater spread calculations *Calculations shall bear design professional seal and signature*			
Copy of the property deed(s)			
If the property owner resides outside the state of North Carolina, an in state agent must sign the application and provide a notarized letter of authorization from the owner			

All Stormwater plans shall include the following:

REQUIREMENT	Applicant to Check	N/A	Review Staff
Show and label all existing and proposed detention/retention basins, underground storage systems and all other BMPs • All basins shall be labeled with a basin ID • Dimension basins • Indicate basin volume • For above ground basins, show grading for basin by showing basin contours • Provide specific basin cross-sections and information, which indicates all pertinent design information			
Show and label all existing and proposed stormwater control structures • All structures shall be labeled with a structure ID • Provide a specific control structure detail with dimensions, which indicates all pertinent design information • Provide a 6-foot chain link fence and access gate for all above ground basins that do not meet safety requirements • Provide all pertinent stormwater notes and details			

Additional items required for Stormwater plan submittals:

REQUIREMENT	Applicant to Check	N/A	Review Staff
Stormwater quantity control systems shall limit the 2-year and 10-year developed peak discharge rates to pre-developed peak discharge rates using the 24-hour SCS Type II design storm and pass the 50-year, 24-hr event storm			
Stormwater quality control systems shall control and treat the runoff leaving the site from the first inch of rain (determined using Simple Method). The volume of runoff shall be detained between 48 and 120 hours. Also, all structural stormwater treatment systems shall be designed to have a minimum of 85% average annual removal for Total Suspended Solids			
For basins and control structures: pre and post development runoff, storage volume, inflow and out flow calculations shall be submitted. Also, provide a maintenance schedule with the calculations. *Calculations shall bear design professional seal and signature.*			
Development or redevelopment required to comply with the provisions for post-construction stormwater control, a contract is required between the person financially responsible and a licensed professional for post-construction stormwater control compliance checks			
Note: A pre-construction meeting will be required for all projects with storm drainage systems or stormwater management systems. Cut sheets for all structures must be submitted prior to the pre-construction meeting.			