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## Overview

Pursuant to Chapter 160D, North Carolina local governments may incorporate certain maps by reference in a development ordinance. This guidance provides detail on how such a provision can be legally established and administered, sample ordinance language, and examples of ordinance provisions used by communities in North Carolina.

## Basic Procedures

The N.C. General Statutes establish several basic procedures regarding development regulation maps. These include the following:

- **Duly adopted zoning maps.** In general, zoning district boundaries must be established pursuant to the standard procedures for legislative action outlined in Article 6 of Chapter 160D, including planning board review and comment, public notice, legislative hearing, and adoption by the governing board with statements of plan consistency and reasonableness.
- **Inclusion of maps by reference.** Development regulations may also incorporate certain maps by reference, including flood insurance rate maps (FIRMs), watershed boundary maps, and other maps officially adopted by state or federal agencies. This can include approved updates to these maps.
- **Maintenance for public inspection.** Chapter 160D provides that duly adopted zoning maps must be maintained for public inspection by the local government clerk or another office specified by the development regulation. Caselaw confirms that local governments must maintain historic zoning maps for reference. The local government must also maintain for public inspection the currently effective version of any map incorporated by reference. Maps may be maintained in paper or digital format.

This Chapter 160D Guidance is one in a series of guidance documents intended to provide supplemental information on specific topics. Additional guidance documents, training videos, an explanatory book, and other Chapter 160D resources are available at [nc160D.sog.unc.edu](https://nc160D.sog.unc.edu).

## Key Considerations

When drafting language to establish the procedures for incorporating maps by reference, it is important to make sure the resulting language 1) complies with applicable law, including the provisions of Chapter 160D, and 2) meets the policy interests of the governing board. Here are some other important considerations.

- **Federal floodplain map requirements.** Local government flood regulations must use state and federally approved flood hazard delineations, and local governments must amend their local flood hazard ordinances within six months of the date of the federal final determination for revised FIRMs. FIRMs go through significant review and public comment, and once they are approved, they must be adopted by local governments without amendment.

The provision in Chapter 160D allows (but does not require) updated flood hazard delineations to be automatically incorporated into local ordinances. Incorporating FIRMs by reference can save time and money, and can help prevent inadvertent use of outdated and inaccurate maps or zoning district delineations.

- **Options for referencing maps.** A local development ordinance may incorporate a specific map (the 2017 version, for example) or the most recent officially adopted version of the map.
- **Maintaining current and past zoning maps.** As has been established in case law, local governments have an obligation to maintain current and past zoning maps. *Shearl v. Town of Highlands*, 236 N.C. App. 113, 762 S.E.2d 877 (2014).
- **Map format.** Current and prior maps may be maintained in a paper or digital format approved by the local government.
- **Automatic updating of zoning district boundaries.** Chapter 160D confirms that when zoning district boundaries are based upon incorporated maps, the local ordinance may provide that the zoning district boundaries are automatically amended to remain consistent with the incorporated map, provided the clerk maintains the incorporated map for public inspection.
- **Certification by local government clerk.** A copy of a map is admissible as evidence in a legal proceeding when the copy is certified by the local government clerk in accordance with G.S. 153A-50 or 160A-79.

- ***Including technical standards by reference.*** In addition to maps, state statutes also allow “any published technical code or any standards or regulation promulgated by any public agency” to be incorporated into an ordinance by reference.

## Statutory Authorization

The statutory language for incorporating maps by reference included in Chapter 160D, Section 160D-105 is provided below for quick reference.

### § 160D-105. Maps.

- (a) ***Zoning Map.*** – Zoning district boundaries adopted pursuant to this Chapter shall be drawn on a map that is adopted or incorporated within a duly adopted development regulation. Zoning district maps that are so adopted shall be maintained for public inspection in the office of the local government clerk or such other office as specified in the development regulation. The maps may be in paper or a digital format approved by the local government.
- (b) ***Incorporation by Reference.*** – Development regulations adopted pursuant to this Chapter may reference or incorporate by reference flood insurance rate maps, watershed boundary maps, or other maps officially adopted or promulgated by State and federal agencies. For these maps a regulation text or zoning map may reference a specific officially adopted map or may incorporate by reference the most recent officially adopted version of such maps. When zoning district boundaries are based on these maps, the regulation may provide that the zoning district boundaries are automatically amended to remain consistent with changes in the officially promulgated State or federal maps, provided a copy of the currently effective version of any incorporated map shall be maintained for public inspection as provided in subsection (a) of this section.
- (c) ***Copies.*** – Copies of the zoning district map may be reproduced by any method of reproduction that gives legible and permanent copies and, when certified by the local government clerk in accordance with G.S. 160A-79 or G.S. 153A-50, shall be admissible into evidence and shall have the same force and effect as would the original map.

## Sample Ordinance Language

The following text is sample of ordinance language that a local government could use to include FIRMs by reference in its local codes. A similar construction can be used for other maps that a local government would like to include by reference.

### **Incorporation of Flood Insurance Rate Maps (FIRM) by Reference**

The standards in this section shall apply to all property within the special flood hazard area, as shown on the most recently adopted Flood Insurance Rate Maps (FIRMs) for [INSERT JURISDICTION NAME HERE]. The applicable FIRMs are incorporated by reference automatically into the [INSERT JURISDICTION NAME HERE] zoning map. The clerk shall maintain a digital or paper copy of the applicable FIRMs for public inspection.

## Example Ordinance Provisions

This section includes sample ordinance language adopting maps by reference from the following local governments: Currituck County, Moore County, City of Charlotte, and Durham City/County. Please note that these statements likely were developed prior to the 2019 passage of Chapter 160D.

### **Currituck County Unified Development Ordinance (2020)**

#### 7.4 Flood Damage Prevention

##### 7.4.2. Applicability

The standards in this section shall apply to all lands within the special flood hazard area, as depicted in the Digital Flood Insurance Rate Maps (DFIRM) for Currituck County and incorporated by reference into this Ordinance.

### **Moore County Unified Development Ordinance (2020)**

#### 16.2 Basis for Establishing the Areas of Special Flood Hazard

The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) and its accompanying Flood Insurance Rate Maps (FIRM), for Moore County dated October 17, 2006, which are adopted by reference and declared to be a part of this ordinance.

### **City of Charlotte Development Code (2020)**

#### Chapter 9 - FLOODPLAIN REGULATIONS

Sec. 9-5(c) This chapter is intended to permit only that development within the floodplain which is appropriate in light of the probability of flood damage and presents a reasonable social and economic use of land in relation to the hazards involved. The regulations hereinafter set forth shall apply to all property located within the special flood hazard area as shown on the flood insurance rate maps (FIRM) including FEMA and/or locally approved revisions to data shown on the FIRMs. It is the intent that these regulations combine with and coordinate with the zoning ordinance regulations for the zoning district in which such property is located. Any use not permitted by the zoning regulations shall not be permitted in the special flood hazard area, and any use permitted by the zoning regulations shall be permitted in these districts only upon meeting conditions and requirements as prescribed in this chapter.

### **Durham Unified Development Ordinance (2020)**

#### 8.5.6 Maps and On-Site Determinations

##### A. Maps

All of the following maps shall be used to identify surface water subject to the requirements of this section:

1. The most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture, which means the most recent hard copy paper bound map or CD-ROM or PDF of such map; and
2. The most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic map prepared by the United States Geologic Survey (USGS); and
3. Outside of the Neuse River Basin, any map approved by the Geographic Information Coordinating Council, the North Carolina Environmental Management Commission and both governing bodies as more accurate than the maps listed in paragraphs 1 and 2 above. However, such map shall not be used for buffer delineation on projects that are existing and ongoing under paragraph 8.5.7, Existing Use Exemption.

Surface water shall be deemed present if it is at least approximately shown on any map. If any surface water is depicted differently on different maps, the most restrictive depiction shall apply.