



Alexander County and Town of Taylorsville

Multi-Jurisdiction Hazard Mitigation Plan

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Acronym List

DOD – Degree of Damage
EAL – Emergency Action Level
EAS – Emergency Alert System
EHS – Extremely Hazardous Substance
EMS – Emergency Medical Service
EOC – Emergency Operations Center
EOP – Emergency Operations Plan
EPZ – Emergency Planning Zone
FBI - Federal Bureau of Investigation
FEMA – Federal Emergency Management Agency
FIRM – Flood Insurance Rate Map
GIS – Global Information System
HAZMAT – Hazardous Materials
ICS – Incident Command System
LEPC – Local Emergency Planning Council
NBC – National Broadcasting Corporation
NCDOT – North Carolina Department of Transportation
NCDFR – North Carolina Department of Forest Resources
NCDNR – North Carolina Department of Natural Resources
NCEM – North Carolina Emergency Management
NCGS – North Carolina General Statutes
NFIP – National Flood Insurance Program
NIMS – National Incident Management System
NOAA – National Oceanic and Atmospheric Administration
NRC – Nuclear Regulatory Commission
NWS – National Weather Service
RRT – Regional Response Teams
SARA – Superfund Authorization and Reauthorization Act
SFHA – Special Flood Hazard Area
SHMO – State Hazard Mitigation Officer
USGS – United States Geological Survey

Section I: Plan Overview

Executive Summary and General Problem Statement

Webster defines mitigate as "to make mild, to make or become milder, less severe or less painful." Therefore there is a distinction between mitigation and prevention, although both will be discussed in this plan. Senate Bill 300 (NCGS 166A as modified) and the Disaster Mitigation Act of 2000 (44CFR 201) mandate each county and municipality to develop and implement a hazard mitigation plan. Failure to have a complete and approved plan will mean the loss of eligibility for post-disaster funding and mitigation grant funding. This plan update must also be submitted to the State Hazard Mitigation Officer (SHMO) for review and forwarded by the State of North Carolina to the Federal Emergency Management Agency (FEMA) for approval on or before June 28, 2009.

This plan will outline the hazards faced by Alexander County (hereafter, also referred to as the county) and the Town of Taylorsville (hereafter, also referred to as the municipality) in terms of both historical and potential events. A rating is given to each hazard for the purposes of prioritizing the mitigation planning process. Through planning and calculation efforts, the county realizes that not all mitigation is possible or cost effective. The county will work to identify the most effective and efficient mitigation measures possible.

This plan also considers the current political climate on global, national, state and local levels. Perceptions of the public and government officials of realistic mitigation, realistic hazards and realistic prevention may differ widely from this plan. Informational campaigns may be undertaken to ensure that all members of the community are aware of mitigation practices and procedures.

Meetings with top government officials, local planners, state and national mitigation planners, the public and others that make up Alexander County's Hazard Mitigation Task Force / Local Emergency Planning Committee (LEPC), were held and input was sought prior to completion and update of the plan. Minutes from these meetings can be found at Appendix Seven to this plan. The public was notified of the planning process via internet publication and newspaper publications.

Alexander County faces a number of hazards every day. During the past two decades the county has faced the effects of hurricanes, drought, damaging tornados, severe winter storms, high winds, freezing temperatures, chemical spills and many more. The county has learned from each incident and the county emergency services and response forces are better trained and better equipped to deal with these hazards than ever before.

In the past decade and a half, Alexander County and her citizens have experienced financial losses in the millions of dollars. Hurricane Hugo (1989) devastated Alexander County in structural and agricultural losses in excess of eight million dollars. The cost of the ice storms in 1996 and 2002 was over \$150 million. Flooding, tornados, and other

natural hazards have cost an additional \$6 million. Direct financial losses and economic losses in Alexander County, cumulatively, have reached well over \$175 million dollars in the past fifteen years. These staggering numbers emphasize the need for a mitigation program that can help minimize the losses from events such as the ones Alexander County has seen in the last 15 years.

Alexander County and Taylorsville face numerous problems in an all-hazard mitigation program. There are also many challenges to designing, developing and maintaining an effective mitigation program. Alexander County and Taylorsville are vulnerable to a variety of hazards which have been identified in Section III of this document entitled Hazard Identification. Because of the number of both natural and man-made hazards that have occurred and have effectively been controlled, Alexander County and Taylorsville have a better understanding of the level of vulnerability and have taken many steps, as outlined in this plan, to mitigate those vulnerabilities. This plan further outlines areas of concern and recommendations to address those concerns through mitigation actions and measures. It also lists those mitigation measures already in place.

Alexander County and Taylorsville, following the intent of the Disaster Mitigation Act of 2000, have assessed their vulnerability to hazards and they are incorporated herein.

Purpose

The purpose of this hazard mitigation plan is to identify those critical areas and facilities within Alexander County that may be affected by a natural or man-made disaster and recommend potential solutions that may effectively reduce or even prevent catastrophic damages, casualties, physical or financial losses.

Hazard Identification

Alexander County and Taylorsville identified the hazards that are addressed in this plan. These hazards were identified through an extensive process that utilized input from Hazard Mitigation Task Force / LEPC members, public input, researching past disasters in the County, a review of the county Emergency Operations Plan (EOP), a review of current Flood Insurance Rate Maps (FIRMs), and risk assessments completed by Alexander County Emergency Management, EnviroSafe Consulting and Investigations Inc., a private emergency management consulting firm, and the North Carolina Division of Emergency Management.

Town of Taylorsville and County Planning Departments provided considerable data regarding current and projected land use and this data was then analyzed to assess potential problem areas, including critical facilities. Initial data from this study was also used to determine those hazards that present the greatest risk to the County. Hazards were assigned a "risk value" by potential. This assignment was made upon the recommendations of the Hazard Mitigation Task Force / LEPC, Town of Taylorsville and county agencies, the State of North Carolina, the Federal Emergency Management

Agency and the public. Based upon the risk value, analysis was made for those hazards with the highest ratings first. Additional, in depth analysis was also performed on hazards with lower ratings orienting the plan toward all-hazard mitigation, as outlined in the Hazard Vulnerability Assessment section of this plan.

The hazards identified include those listed below. Other natural or man-made hazards that could occur in other parts of the country (i.e.: volcanoes, tsunamis, etc.) were not analyzed in depth, because (1) the location of our jurisdiction does not make us prone to them, (2) there was no history of any such occurrence and the likelihood of such an occurrence is less than one percent, (3) there is no indication in any researched document that such events are ever likely to occur. Therefore, the Hazard Mitigation Task Force felt it appropriate that time and very limited resources be used to identify and analyze those realistic hazards listed below.

- Drought
- Earthquake
- Floods
- Forest Fires
- Hazardous Materials
- Hurricanes
- Terrorist Activity Including Other (Biologics, Disease, etc)
- Thunderstorms
- Tornados
- Winter Storms

Other threats that were considered, but when examined rated less than one on the hazard rating include:

- Fixed Nuclear Facility
- Landslide
- Large Structural Fires
- Mass Fatality
- Nor'easter
- Power Failure

Hazard and Vulnerability Analysis

Alexander County and Taylorsville conducted research into existing documents, history, land use, demographics, ordinances, state and federal law and accepted codes and practices. Alexander County also reviewed existing FIRMs from FEMA and incorporated that review onto Geographic Information Systems (GIS) maps from the Mapping Department of Alexander County. New, digital FIRMs are available from the State and can be accessed at <http://www.ncsparta.net/fmis/MainMap.aspx>.

Analysis and assessment has been conducted with input from the public, local, state and federal agencies, planning agencies and others. The analyses and assessments were then presented to the Hazard Mitigation Task Force / LEPC for discussion and inclusion or

exclusion.

The results of this study, and subsequent reexamination of the data, have resulted in the following information and documentation which can be found throughout this plan.

- A. Critical facilities
- B. Potential risk by hazard or threat and rating associated with each hazard
- C. Data used and effectiveness for mitigation
- D. Data developed
- E. Vulnerability assessment
- F. Future land use (Comprehensive Plan)
- G. Historical storms and events table
- H. Special concern area - Town of Taylorsville
- I. Maps

Hazard and Vulnerability Mitigation

Alexander County and Taylorsville jointly developed, with guidance from the North Carolina Division of Emergency Management and the Federal Emergency Management Agency, the overall concept of the Hazard Mitigation Plan, the format of the plan and its planning process. Alexander County was one of the first counties in the state to develop a Hazard Mitigation Task Force / LEPC. Members of this Task Force have been appointed by elected officials or by Town of Taylorsville and county managers.

The following outline was developed to assess those areas of the plan of the greatest interest or concern.

- A. Concept
- B. Planning
- C. Planning process and responsibility assignment
- D. Participants in / public involvement
- E. Coordination maintenance and approval
- F. Current legal measures
- G. Current mitigation measures
- H. Need to modify current measures
- I. Current development trends

Implementation

Perhaps the most difficult portion of the Alexander County Hazard Mitigation Plan has been the implementation process. Debate has centered on funding for the initiatives outlined in the Mitigation Strategy. Most members of the Hazard Mitigation Task Force agree that, with sufficient funding, the primary goals and objectives that have been

outlined can be accomplished within specified time periods. The Hazard Mitigation Task Force / LEPC decided on the "action plan" approach, which outlines the actions that will be taken to achieve the objective, as well as time lines and the primary area or agency that will have the responsibility for carrying out the action.

Without guarantees of funding, specific actions or timelines for implementation for each objective identified remain supposition. Without promise of funding, the Hazard Mitigation Task Force / LEPC feels that the time required to develop an action plan for each objective would be cost and time prohibitive.

General action plans have been developed to implement the plan. The following outline was developed to assess those areas of the plan of interest or concern.

- A. Mitigation Strategy and Goals
 - 1. Action Plan - Real Time Monitoring
 - 2. Action Plan - Information Collection, Interpretation, and Dissemination
 - 3. Action Plan - Guidelines and training
 - 4. Action Plan - Public Awareness and Education
 - 5. Action Plan - Implementation of Loss Reduction Measures
 - 6. Action Plan - Emergency Preparedness, Response, and Recovery
- B. Adopting new or additional legal or voluntary measures
- C. Goals prioritized
- D. Goals detailed
- E. Potential program funding sources

The entire plan is presented as a living document and one that will be changed, reviewed, updated and revisited over the next five years, with a plan update required by the federal government within five years of the approval date

Section II: Purpose

Purpose

The purpose of this hazard mitigation plan is to identify those critical areas and facilities of Alexander County that may be affected by a natural or man-made disaster and recommend potential solutions that may effectively reduce or even prevent catastrophic damages, casualties, physical or financial losses.

Section III: Hazard Identification and Analysis

Hazard Identification and Analysis

Alexander County and Taylorsville identified the hazards that are addressed in this plan. These hazards were identified through a process that utilized input from Hazard Mitigation Task Force / LEPC members, public input, researching past disaster declarations in the County, a review of the County Emergency Operations Plan (EOP), a review of current FIRMs, and risk assessments completed by Alexander County Emergency Management, EnviroSafe Consulting and Investigations Inc. a private emergency management consulting firm, and the North Carolina Division of Emergency Management.

Town of Taylorsville and County Planning Departments have provided considerable data regarding current and projected land use and this data has been analyzed to assess potential problem areas. Initial data from this study was also used to determine those hazards that present the greatest risk to the County. Hazards have been assigned a risk value by potential. This assignment was made upon the recommendations of the Hazard Mitigation Task Force / LEPC, Town of Taylorsville and county agencies, the State of North Carolina, the Federal Emergency Management Agency and the public. Based upon the risk value, analysis was made for those hazards with the highest ratings first. Additional, in depth analysis, was also performed on hazards with lower ratings making the plan oriented toward all hazard mitigation, as outlined in the Hazard Vulnerability Assessment section of this plan.

The hazards identified include those listed below. Other natural or man-made hazards that could occur in other parts of the country (i.e.: volcanoes, tsunamis, etc.) were not analyzed in depth, because of (1) the location of our jurisdiction, (2) there was no history of any such occurrence and the likelihood of such an occurrence was less than 1% , (3) there was no indication in any researched document that such events were ever likely to occur. Therefore, the Hazard Mitigation Task Force felt it appropriate that time and very limited resources be used to identify and analyze those realistic hazards listed below.

- Drought
- Earthquake
- Floods
- Forest Fires
- Hazardous Materials
- Hurricanes
- Terrorist Activity Including Other (Biologics, Disease, etc)
- Thunderstorms
- Tornados
- Winter Storms

Other threats that were considered, but when examined rated less than one on the hazard rating include:

- Fixed Nuclear Facility
- Landslide
- Large Structural Fires
- Mass Fatality
- Nor'easter
- Power Failure

Also see Current Mitigation Measures and Hazard Vulnerability Assessments.

Alexander County, and Taylorsville, following the intent of Senate Bill 300, and the Hazard Mitigation Act of 2000, assessed their vulnerability to hazards. All hazards are considered "common hazards."

Table 1: Hazard Ratings

Alexander County Threat / Hazard	Frequency (10 year)	Potential for occurrence	Rating for planning priority 1-5
Drought	3	Low	2
Earthquake	1	Moderate	3
Floods	2	Moderate	3
Forest Fires	3	Low	2
Hazardous Materials (transport & fixed)	63	High	5
Hurricanes	1	Low	2
Severe Thunderstorms	50	Moderate	4
Terrorist Activity (includes biological)	0	Low	1
Tornados	3	Moderate	4
Winter Storms	48	Moderate	4
<ul style="list-style-type: none"> • Rating is based on countywide potential rather than geographically isolated incidents. • Information obtained from CAD records, weather history, EM Response reports and NCDEM data over a ten-year period from 1998 to 2008. Historical data (see Table 2) was derived from NCDEM and ranges from 06/10/1963 until 07/01/2009. These figures were updated using sources from FEMA, NOAA, Department of Transportation (DOT) and others. Additional sources of information were also used. • Ratings are for planning priority purposes only and were derived from discussion with the Alexander County Hazard Mitigation Task Force/LEPC and from NCDEM "Local Hazards by County". 			

Research was conducted that provided initial planning priorities. Entities also researched the potential for occurrence from a number of sources, but the primary source was the "History of Hazards by County" from the NC Division of Emergency Management. Discussion was then held by the Hazard Mitigation Task Force / LEPC on May 1, 2003 during the initial kickoff meeting. This rating system was revisited for comment in the Mitigation Task Force/LEPC meetings on December 18, 2008 and February 6, 2009.

Each hazard was discussed individually and included the hazard specific threat, the frequency of occurrence in history and the probability of future occurrences. The Mitigation Task Force/LEPC affirmed the choice to add Hazardous Materials to the threat due to the large numbers of incidents in the county and the Town of Taylorsville, mostly from transportation accidents and the potential for future occurrence as illustrated in the 2008 Commodity Flow Study. Recent historical weather events data was provided as supporting information to gauge the potential for future incidents, based upon the number and types on incidents that had happened in the past. After considerable discussion the Hazard Mitigation Task Force/LEPC agreed and adopted the findings in Table 1. This table differs slightly from Table 3 - Local Natural Hazards potential for occurrence that was provided by the NCDEM Hazard Mitigation branch.

Table 2: Historic Weather Events

Location or County	Date	Type
1 ALEXANDER	06/10/1963	Tstm Wind
2 ALEXANDER	07/19/1968	Tstm Wind
3 ALEXANDER	06/14/1974	Hail
4 ALEXANDER	05/16/1975	Tstm Wind
5 ALEXANDER	06/10/1982	Tstm Wind
6 ALEXANDER	06/10/1985	Tstm Wind
7 ALEXANDER	07/10/1985	Hail
8 ALEXANDER	07/12/1985	Tstm Wind
9 ALEXANDER	07/12/1985	Tstm Wind
10 ALEXANDER	07/22/1985	Tstm Wind
11 ALEXANDER	07/26/1986	Tstm Wind
12 ALEXANDER	07/09/1988	Tstm Wind
13 ALEXANDER	07/10/1988	Tstm Wind
14 ALEXANDER	08/16/1988	Tstm Wind
15 ALEXANDER	05/05/1989	Tstm Wind
16 ALEXANDER	04/01/1990	Hail
17 ALEXANDER	05/01/1990	Hail
18 ALEXANDER	05/02/1990	Hail
19 ALEXANDER	05/02/1990	Hail
20 ALEXANDER	09/10/1990	Tstm Wind

21 ALEXANDER	04/09/1991	Tstm Wind
22 ALEXANDER	03/10/1992	Tornado
23 ALEXANDER	07/31/1992	Tstm Wind
24 Statewide	03/12/1993	Winter Storm
25 NCZ001>510	03/23/1993	Flash Floods
26 Southern	08/26/1993	Thunderstorm Winds
27 Northern And Central	01/03/1994	Heavy Snow
28 Statewide	01/15/1994	Extreme Cold
29 Statewide	01/19/1994	Extreme Cold
30 Northern Interior And	02/10/1994	Ice Storm
31 Taylorsville	08/19/1994	Hail
32 Sw Portion	08/27/1994	Thunderstorm Winds
33 Mountains And Foothil	12/09/1995	Freezing Rain
34 NCZ034>037 - 054>057 - 066 - 069	01/06/1996	Heavy Snow
35 NCZ033>037 - 048>058 - 065>072 - 082	01/11/1996	Winter Storm
36 NCZ033>037 - 048>058 - 065>072	01/18/1996	High Wind
37 NCZ033>037 - 048>058 - 065>066 - 069	01/26/1996	Ice Storm
38 NCZ033>037 - 048>057	02/02/1996	Ice Storm
39 NCZ034>037 - 054>057 - 067>072	02/03/1996	Snow
40 Taylorsville	05/24/1996	Hail
41 Hiddenite	08/16/1996	Tstm Wind
42 NCZ034>037 - 054>057 - 066 - 070	12/06/1996	Icy Roads
43 NCZ033>037 - 048 - 059 - 062>067	12/18/1996	Heavy Snow
44 NCZ033>035 - 048>055 - 058>059 - 062>067	01/08/1997	Snow And Sleet

45 NCZ033>037 - 048>055 - 058>059 - 062>067 - 069	01/09/1997	Ice Storm
46 NCZ034>037 - 055>057 - 068>072	01/15/1997	Snow
47 NCZ034>035 - 054>056 - 066>070	01/31/1997	Fog
48 NCZ034>037 - 056>057 - 068>071 - 082	02/13/1997	Ice Storm
49 NCZ034>036 - 054>057 - 066>072 - 082	03/31/1997	Gusty Winds
50 NCZ033>037 - 048>059 - 062>072 - 082	04/01/1997	Cold
51 Stony Pt	06/20/1997	Tstm Wind
52 Stony Pt	06/21/1997	Tstm Wind
53 Taylorsville	06/26/1997	Hail
54 Taylorsville	07/16/1997	Tstm Wind
55 Taylorsville	09/09/1997	Tstm Wind
56 NCZ034>037 - 054>057 - 062 - 069	12/29/1997	Heavy Snow
57 Taylorsville	01/08/1998	Hail
58 NCZ034>037 - 054>057 - 066>072 - 082	02/24/1998	High Wind
59 Hiddenite	05/07/1998	Tstm Wind
60 Hiddenite	05/07/1998	Tornado
61 Bethlehem	05/07/1998	Tornado
62 Bethlehem	05/07/1998	Hail
63 Taylorsville	05/07/1998	Hail
64 Taylorsville	06/03/1998	Hail
65 Millersville	06/10/1998	Lightning
66 Taylorsville	06/10/1998	Tstm Wind
67 Taylorsville	06/10/1998	Hail
68 Taylorsville	06/10/1998	Lightning

69 Ellendale	06/16/1998	Hail
70 Hiddenite	06/16/1998	Hail
71 NCZ033>037 - 048>059 - 062>072 - 082	07/01/1998	Dry Weather
72 NCZ033>037 - 048>059 - 062>072 - 082	10/01/1998	Drought
73 NCZ033>037 - 048>059 - 062>072 - 082	11/01/1998	Drought
74 NCZ034>037 - 054>057	11/10/1998	Dense Fog
75 NCZ033 - 035>036 - 048>053 - 055 - 058>059 - 062>064 - 066>068 - 070>071 - 082	12/23/1998	Freezing Rain/sleet
76 NCZ034>035 - 037 - 050 - 053>056 - 065>067	01/02/1999	Ice Storm
77 NCZ034>037 - 054>057 - 066>070	02/01/1999	Freezing Rain
78 NCZ034>037 - 049>050 - 054>057 - 067>072	02/19/1999	Snow
79 NCZ034>037 - 048>053 - 056>059 - 063 - 069	02/24/1999	Snow
80 NCZ035 - 048 - 052 - 056 - 059 - 064>070 - 072	03/09/1999	Snow And Sleet
81 NCZ034>037 - 054>057 - 066>072 - 082	07/01/1999	Drought
82 NCZ033>037 - 048>059 - 062>072 - 082	08/01/1999	Drought
83 NCZ033>037 - 048>059 - 062>072 - 082	09/01/1999	Drought
84 NCZ035 - 053>054 - 062 - 064>065 - 067 - 069>071 - 082	09/15/1999	High Wind
85 NCZ033>037 - 048>059 - 062>072 - 082	10/01/1999	Drought
86 NCZ034>037 - 054>057 - 066>072 - 082	12/13/1999	Fog

87 NCZ034>037 - 048>049 - 051>056 - 058>059 - 062>067	12/24/1999	Snow
88 NCZ033>037 - 055>057 - 069	01/18/2000	Heavy Snow
89 NCZ034>037 - 051>059 - 064	01/20/2000	Snow
90 NCZ033>037 - 048>056 - 058>059 - 062>072 - 082	01/22/2000	Heavy Snow
91 NCZ034>037 - 054>057 - 059 - 062>063 - 066>069	01/29/2000	Freezing Rain
92 Bethlehem	05/20/2000	Tstm Wind
93 Stony Pt	05/20/2000	Tstm Wind
94 Taylorsville	05/25/2000	Lightning
95 NCZ033>037 - 048>059 - 062>072 - 082	08/01/2000	Drought
96 Taylorsville	08/07/2000	Tstm Wind
97 NCZ033>037 - 048>059 - 062>072 - 082	09/01/2000	Drought
98 NCZ033>037 - 048>059 - 062>072 - 082	10/01/2000	Drought
99 NCZ033>037 - 048>059 - 062>072 - 082	11/01/2000	Drought
100 NCZ033>037 - 048>059 - 062>072 - 082	11/09/2000	Gusty Winds
101 NCZ033>037 - 048>059 - 062>072 - 082	11/19/2000	Snow
102 NCZ033>037 - 048>059 - 062>072 - 082	12/01/2000	Extreme Cold
103 NCZ033>036 - 049>050 - 054>056 - 068>069	12/13/2000	Freezing Rain
104 NCZ034>037 - 051>056 - 058>059 - 064>067	12/19/2000	Snow
105 NCZ033>037 - 048>059 - 062>072 - 082	02/01/2001	Drought

106 NCZ034>037 - 048>049 - 053 - 055>057 - 065 - 067>069	02/22/2001	Snow/sleet
107 NCZ033>037 - 048>059 - 062>072 - 082	03/01/2001	Drought
108 NCZ034>036 - 049>050 - 052>057 - 059 - 062>071	03/20/2001	High Wind
109 NCZ033>037 - 048>059 - 062>072 - 082	04/01/2001	Drought
110 NCZ034>037 - 053>057 - 065>070	04/17/2001	Snow Showers
111 NCZ033>037 - 048>059 - 062>072 - 082	05/01/2001	Drought
112 Taylorsville	05/19/2001	Tstm Wind
113 NCZ033>037 - 049>059 - 062>072 - 082	08/01/2001	Drought
114 NCZ033>037 - 048>059 - 062>072 - 082	11/01/2001	Drought
115 NCZ033>037 - 048>059 - 062>072 - 082	12/01/2001	Drought
116 NCZ034>037 - 055>057 - 062 - 067>070 - 072	01/03/2002	Heavy Snow
117 NCZ035 - 056 - 068	01/06/2002	Icy Roads
118 NCZ034>037 - 054>057 - 066>072 - 082	02/04/2002	High Wind
119 Taylorsville	03/15/2002	Dust Devil
120 Taylorsville	04/05/2002	Dust Devil
121 Bethlehem	05/10/2002	Hail
122 Bethlehem	06/13/2002	Hail
123 Bethlehem	06/13/2002	Tstm Wind
124 NCZ033>037 - 048>059 - 062>072 - 082	08/01/2002	Drought
125 Millersville	08/02/2002	Tstm Wind
126 NCZ034>037 - 054>057	12/04/2002	Heavy Snow

127 NCZ034>037 - 054>057 - 066>067 - 069	12/04/2002	Ice Storm
128 NCZ034>035 - 054>055	01/16/2003	Heavy Snow
129 NCZ033>037 - 048>057 - 066>069	01/23/2003	Heavy Snow
130 NCZ034>035 - 037 - 054>055	02/06/2003	Winter Storm
131 NCZ035>037 - 056>057 - 068>072 - 082	02/16/2003	Sleet Storm
132 NCZ035 - 057	02/27/2003	Ice Storm
133 NCZ033>037 - 049>050 - 053 - 056>057 - 065>072	02/27/2003	Winter Weather/mix
134 Countywide	03/20/2003	Flash Flood
135 NCZ034>037 - 056>057 - 066>067	03/30/2003	Winter Weather/mix
136 Taylorsville	04/30/2003	Hail
137 Hiddenite	05/03/2003	Hail
138 Millersville	05/03/2003	Hail
139 Ellendale	05/03/2003	Hail
140 Taylorsville	05/15/2003	Hail
141 Taylorsville	05/15/2003	Hail
142 Taylorsville	06/08/2003	Tstm Wind
143 Hiddenite	06/11/2003	Tstm Wind
144 Bethlehem	06/16/2003	Tstm Wind
145 Bethlehem	06/16/2003	Flash Flood
146 Bethlehem	06/16/2003	Tstm Wind
147 Stony Pt	07/09/2003	Tstm Wind
148 Taylorsville	07/21/2003	Hail
149 Taylorsville	07/21/2003	Tstm Wind
150 Bethlehem	07/29/2003	Tstm Wind
151 Taylorsville	08/22/2003	Hail

152 NCZ034>037 - 054>057 - 066>068 - 071	12/04/2003	Winter Weather/mix
153 NCZ035 - 050	12/13/2003	Sleet Storm
154 NCZ033>037 - 048>055 - 057>058 - 072	01/09/2004	Winter Weather/mix
155 NCZ034>037 - 055>057 - 066>072 - 082	01/25/2004	Sleet Storm
156 NCZ033>037 - 048>050 - 053>057 - 062>067	01/25/2004	Heavy Snow
157 NCZ034>035 - 048 - 054 - 065>067	02/02/2004	Winter Weather/mix
158 NCZ035>037 - 056>057	02/05/2004	Winter Weather/mix
159 NCZ034>037 - 054>056	02/12/2004	Winter Weather/mix
160 NCZ033 - 035	02/15/2004	Heavy Snow
161 NCZ033 - 035	02/15/2004	Winter Weather/mix
162 NCZ034>035 - 037	02/26/2004	Heavy Snow
163 NCZ034>035 - 054>055	03/07/2004	High Wind
164 Taylorsville	03/07/2004	Tstm Wind
165 NCZ034>037 - 054>057 - 066>072 - 082	03/27/2004	Frost/freeze
166 NCZ034>037 - 054>057 - 066>072 - 082	05/01/2004	Drought
167 Stony Pt	05/09/2004	Hail
168 Ellendale	05/26/2004	Tstm Wind
169 Taylorsville	07/04/2004	Tstm Wind
170 Hiddenite	07/27/2004	Heavy Rain
171 NCZ035	09/07/2004	Flood
172 NCZ033>035 - 048>055 - 059 - 063>067	09/17/2004	High Wind
173 Stony Pt	11/25/2004	Tstm Wind
174 NCZ035>037 - 056>057 - 066>067	01/22/2005	Winter Weather/mix

175 NCZ035>037 - 056	01/29/2005	Winter Storm
176 NCZ035>037 - 056	01/29/2005	Winter Weather/mix
177 NCZ035>037 - 048 - 051>052 - 056 - 059 - 063 - 066>067	02/27/2005	Winter Weather/mix
178 NCZ033>037 - 048>050 - 052>057 - 059 - 063>068	03/17/2005	Winter Weather/mix
179 Bethlehem	05/10/2005	Hail
180 Hiddenite	05/10/2005	Tstm Wind
181 Taylorsville	07/07/2005	Tornado
182 Ellendale	07/17/2005	Tstm Wind
183 Taylorsville	07/17/2005	Lightning
184 Taylorsville	07/17/2005	Tstm Wind
185 Taylorsville	07/27/2005	Tstm Wind
186 Millersville	07/28/2005	Tstm Wind
187 Bethlehem	08/16/2005	Tstm Wind
188 NCZ035 - 054	12/08/2005	Winter Weather
189 NCZ035 - 054	12/09/2005	Ice Storm
190 NCZ035>037 - 056 - 069	12/15/2005	Winter Weather
191 NCZ035>037 - 056>057 - 069 - 071	12/15/2005	Ice Storm
192 NCZ033>037 - 053>057 - 063>070	12/16/2005	Freezing Fog
193 NCZ034>035	01/14/2006	High Wind
194 NCZ034>036 - 052>056 - 067>069	03/20/2006	Winter Weather
195 Hiddenite	04/03/2006	Hail
196 Taylorsville	04/25/2006	Hail
197 Taylorsville	05/14/2006	Hail
198 Millersville	07/04/2006	Tstm Wind
199 Taylorsville	07/15/2006	Tstm Wind

200 Taylorsville	07/20/2006	Hail
201 Taylorsville	07/20/2006	Tstm Wind
202 Hiddenite	07/20/2006	Tstm Wind
203 NCZ033 - 035>037 - 049>050 - 053 - 056>057 - 063>065 - 068>072 - 082 - 501	01/18/2007	Winter Weather
204 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	04/08/2007	Frost/freeze
205 Millersville	04/15/2007	Thunderstorm Wind
206 NCZ035 - 056	04/15/2007	High Wind
207 NCZ033 - 035>037 - 048>052 - 056>059 - 062>064 - 068>072 - 501>502 - 508	04/16/2007	High Wind
208 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	05/01/2007	Drought
209 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	06/01/2007	Drought
210 Bethlehem	06/11/2007	Hail
211 Stony Pt	06/27/2007	Thunderstorm Wind
212 NCZ033 - 035>037 - 048>052 - 056>059 - 062>065 - 068>072 - 082 - 501	07/01/2007	Drought
213 Bethlehem	07/10/2007	Thunderstorm Wind
214 Taylorsville	07/25/2007	Thunderstorm Wind
215 Taylorsville	07/25/2007	Hail
216 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	08/01/2007	Drought
217 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	09/01/2007	Drought
218 NCZ033 - 035>037 -	10/01/2007	Drought

048>053 - 056>059 - 062>065 - 068>072 - 082 - 501		
219 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	11/01/2007	Drought
220 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	12/01/2007	Drought
221 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	01/01/2008	Drought
222 NCZ033 - 035 - 049 - 052>053 - 056 - 059 - 501	01/16/2008	Heavy Snow
223 NCZ033 - 035 - 048>050 - 052>053 - 056 - 059 - 062>065 - 068 - 501	01/19/2008	Winter Weather
224 NCZ035>037 - 056>057 - 069>070 - 072	02/10/2008	High Wind
225 NCZ035>037 - 056>057 - 502 - 504	02/13/2008	Winter Weather
226 Taylorsville	03/04/2008	Thunderstorm Wind
227 Taylorsville	05/08/2008	Thunderstorm Wind
228 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	06/01/2008	Drought
229 Taylorsville	06/21/2008	Hail
230 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	07/01/2008	Drought
231 Bethlehem	07/08/2008	Thunderstorm Wind
232 Bethlehem	07/31/2008	Thunderstorm Wind
233 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	08/01/2008	Drought
234 Taylorsville	08/02/2008	Hail
235 Hiddenite	08/02/2008	Thunderstorm Wind

236 Bethlehem	08/14/2008	Hail
237 Bethlehem	08/14/2008	Thunderstorm Wind
238 NCZ033 - 035>037 - 048>053 - 056>059 - 062>065 - 068>072 - 082 - 501	09/01/2008	Drought
239 Taylorsville	09/30/2008	Hail

Source: NOAA

Table 3: Local Natural Hazard Probability

County	Climate Division (NOAA)	Earth quake	Land slide	Hurricane	Nor'easter	Tornado	Severe Winter Weather	Wildfire	Flood
Alexander	4	Mod.	Mod.	Low	Low	Mod.	Mod.	Low	Mod.

Sources:

NCDEM, Hazard Mitigation Branch

FEMA - HAZUS

NOAA

Alexander County Hazard Mitigation Task Force / L.E.P.C.

Hazard Identification

(See sources of information below)

All hazards identified are considered "common hazards" faced by both the county and the Town of Taylorsville. When analyzed, several hazards were determined to have an insignificant impact and or probability of occurrence. These were identified as commercial aircraft accidents, power failures, biologics, nor'easter, landslides, fixed nuclear facility incidents, landfill fires, mass fatality incidents, volcanoes, tsunamis and tidal flooding.

One common hazard that did present a specific concern to the Town of Taylorsville was flooding. This is addressed in the flood hazard assessment.

Wildfire (Forest Fires)

Also see current mitigation measures or the hazard rating. Also see wildfire hazard assessment.

There are three types of wildfires.

Surface Fire This type burns slowly along the floor of a forest. This is the most common type of wildfire. This type of fire can damage or even kill trees.

Ground Fire Usually occurs from a lightning strike. This type of fire burns on or below the forest floor.

Crown Fire This fire is quickly spread by the wind. It tends to jump among the crowns of trees.

All are generally characterized by very thick smoke.

Earthquake

Also see current mitigation measures or the hazard rating and earthquake hazard assessment.

An earthquake is a series of vibrations induced in the earth's crust by the abrupt rupture and rebound of rocks in which elastic strain has been slowly accumulating. It is caused by a slip on a fault, which is a thin zone of crushed rock between two blocks of rock. The fault can be any length, from a few millimeters to thousands of kilometers. It is a fracture in the crust of the earth along which rocks on one side have moved relative to those on the other side. An earthquake occurs when stresses in the earth's outer layer push the sides of the fault together. Stress builds up and the rocks slip suddenly, releasing energy in waves that cause the shaking.

Earthquakes can cause severe damage to property and extensive loss of life. An earthquake will not kill by itself but may cause extensive structural damage and collapse that could cause fatalities and injury.

Earthquakes can occur at any time of the day and are not related to weather patterns. An earthquake cannot be prevented, although mitigation measures can be taken, particularly structural measures, to reduce the impact that an earthquake has on the surface.

The National Earthquake Information Center has recorded approximately 30,000 earthquakes a year between 2000 and 2008. Most of these earthquakes include very low vibrations and cannot be felt by people on the surface.

Flooding

Also see current mitigation measures or the hazard rating. Also see the flood hazard assessment.

Flooding occurs from a number of weather and non-weather related reasons. Floods typically occur from prolonged rainfall, but they can also occur from snowmelt, ice jams

and dam failures. Floods occur in all 50 states, particularly in low-lying communities, near a water source, or downstream from a dam.

Flooding can cause destruction to property and injuries and deaths. On average 100 people lose their lives to floods every year and the average annual U.S. flood losses between 1994 and 2004 were more than \$2.4 billion.

There are seven types of flooding in the United States Riverine Flooding, Flash Floods, Alluvial Fan Floods, Ice Jam Floods, Dam Break Floods, Local Drainage or High Groundwater Levels, and Fluctuating Lake Levels.

Riverine Flooding: This is the most common type of flooding. This occurs when a river or stream overflows its banks. In large rivers, it usually occurs after a serious, large-scale weather event. In streams, this can occur from more localized weather systems.

Flash Floods: Flash floods typically encompass a quick rise of high velocity water and large amounts of debris. Factors that contribute to flash flooding include the length and intensity of rain and the steepness of watershed and stream gradients. Other factors influencing flash floods include the amount of watershed vegetation, natural and artificial water storage, and the configuration of the streambed and floodplain. Flash floods not only occur from weather systems, but also from a dam failure, or breakup of ice. This type of flood poses the most risk to property and lives. Because of the rapid rise of the water levels, a large percentage of flood deaths occur from motorists who underestimate the depth and velocity of the floodwaters and attempt to cross flooded areas. This typically occurs when a weather event quickly drops an extensive amount of water. Walls of water from this type of event can reach 15 to 20 feet.

Dam Break Floods: Results from structural failures of dams.

Local Drainage or High Groundwater Levels: Heavy precipitation from local weather events may produce flooding outside of delineated flood plains. If the local soil cannot handle precipitation through infiltration and runoff, the water may accumulate. During winter, frozen ground and accumulated snow will contribute to this problem. This type of flooding generally occurs in flat and urban areas. High groundwater levels may cause leakage in susceptible basements.

Fluctuating Lake Levels: Lake levels can change over a short period of time, over a season, or on a long-term basis. Heavy rain or snow can influence levels. All lakes are susceptible to changes in water level, but the problem seems to occur most often in lakes that are landlocked or have inadequate outlets for maintaining a balance between in and outflow. These types of lakes can fluctuate from 5 to 15 feet over an extended period of time.

Due to the severe consequences from flooding, local governments should pay close attention to flood warnings and forecasts. These mitigation measures decrease property

damage by an estimated \$1 billion annually. The National Weather Service (NWS) is legally responsible for weather forecasting and warning. NWS uses the stream gauging stations that the United States Geological Survey (USGS) operates and maintains nationwide, including 98 percent of gages used for real-time forecasting.

In the early 1960s it was recognized that there needed to be a standard of evaluating flood risk throughout the United States. This resulted in the 100-year or 1-percent-annual chance flood. This assessment delineates a degree of risk and damage worth protecting against, but not deemed to be worthy of imposing stringent requirements or burdens of excessive costs on property owners. The 100-year flood represents a middle ground between minor floods and major floods.

Computed water surface elevations are combined with topographic mapping data to develop the FIRMs. These maps are important planning tools to determine where development should reside within flood prone areas. Insurance companies use the FIRMs to determine flood insurance rates.

Alexander County (370398) is a participant in the National Flood Insurance Program (NFIP), making citizens eligible for flood insurance. Alexander County continues to participate in the NFIP regulating all floodplain development and substantial improvements through adoption and enforcement of floodplain management requirements in all special flood hazard areas, participates with NCEM in floodmap updates and revisions, and provides monitoring and community assistance through the Alexander County Planning Department. The Town of Taylorsville does not participate in the NFIP but may consider participation at a later time. Currently, the Town is in the process of gathering the necessary documentation to participate in the NFIP. The Town meets many of the requirements set forth by the program and is in the process of gaining the administrative and leadership support necessary to carry the application and adoption process through to completion. The Town anticipates being enrolled in the program by the next mitigation plan update. All information and actions in this plan assist in identifying, analyzing and prioritizing actions related to continued compliance with the NFIP.

Drought

Also see current mitigation measures or the hazard rating and the drought hazard assessment.

A drought is roughly defined as a condition of abnormally dry weather within a geographic region where some rain is usually expected. This is caused by a lack of precipitation in conjunction with wind, high temperatures, and low humidity. This lack of rain in a region results in a number of problems. There are varying degrees of severity in a drought. This severity depends on the demand on water in a region, duration, and intensity.

Direct impacts of a drought can include:

- Diminished water supplies or reduction of water quality.
- Undernourished livestock and wildlife.
- Crop damage
- Increased fire hazards
- Reduced forest productivity
- Damage to fish and wildlife habitat

Indirect impacts of a drought can include:

- Reduced income for farmers and agribusiness
- Increased prices for food and lumber
- Unemployment
- Reduced tax revenues because of reduced expenditures
- Increased crime
- Foreclosures on bank loans to farmers and agribusiness

There are four types of droughts:

1. Meteorological Drought – This is a reduction of precipitation over time. This definition is regionally based.
2. Agricultural Drought – This occurs when soil moisture cannot meet the demands of a crop. This type of drought happens after a meteorological drought but before a hydrological drought.
3. Hydrological Drought – This type refers to reduction in surface and subsurface water supplies. It is measured through stream flow and water levels in lakes, reservoirs, and groundwater.
4. Socioeconomic drought – This occurs when water shortages affect people, either in terms of water supply or economic impacts (i.e. loss of crops so price increases).

Severe Winter Storms

Also see current mitigation measures or the hazard rating and winter storm vulnerability assessment.

The occurrence of large snowstorms, ice storms, and severe blizzards has a substantial impact on communities, utilities, and transportation systems, and often results in loss of life due to accidents or hypothermia. In addition to the impacts on transportation, power transmission, communications, agriculture, and people, severe winter storms can cause extensive coastal flood-erosion and property loss.

Severe winter storms manifest themselves in a wide variety of ways including heavy snow, blizzards, freezing rain, ice pellets, and extreme cold. Severe winter storms are extra-tropical cyclones fueled by strong temperature gradients and an active upper-level jet stream. The storms that hit North Carolina usually form in the Gulf of Mexico or off the southeast Atlantic Coast. In North Carolina, very few of these result in a blizzard.

Hurricanes

Also see current mitigation measures and the hazard rating and hurricane vulnerability assessment.

Hurricanes are devastating natural events on the Atlantic Coast of the United States. Coastal populations in the Southeastern United States experience substantial growth each year, leading to increased numbers of residents and property at risk of impact by a hurricane or tropical event.

A hurricane is a type of tropical cyclone, which is a low pressure system that generally forms in the tropics. For a hurricane to occur, a number of conditions must be met. These include a pre-existing weather disturbance, warm tropical oceans, moisture, and relatively light winds aloft. If these all come together, they can produce a hurricane which will likely lead to violent winds, high waves, torrential rains, storm surge, tornados, and flooding.

Hurricane eyes move around 10 - 15 mph. Hurricanes typically move westward at first and become stronger with time. Hurricanes then typically turn from the equator and pick up speed. Most hurricanes turn east after they reach temperate latitudes. Many end up as weak storm centers over cool oceans.

If a hurricane continues to move west and encounters land, strong winds and heavy rain can impact an area for many hours. As the eye of the hurricane hits an area, the high winds and rain stop. Less than an hour later, the eye passes and the damaging winds and rains continue. Hurricanes tend to weaken after reaching land because they are not receiving energy from the evaporation of warm seas. The wind also encounters friction from the rougher land surface. Winds die down first, while heavy rains continue.

When a hurricane is initially formed, a number of agencies and departments keep track of its progress. A multitude of information is collected, including pressure, temperature, and wind speeds. This information is very important to formulation of predictions on landfall and severity, so communities in its path can be warned.

Housing is very susceptible to damage from hurricanes. The greatest wind impacts occur on houses' sides. Since hurricane force winds push for extended periods of time, it can push a frame out of alignment or lift it off its foundation. The storm makes weak points such as windows and doors particularly vulnerable. Even if the wind doesn't destroy a

house, residents should be aware of heavy rains producing enough floodwaters to damage the house. A typical hurricane drops six to twelve inches of water on the area it crosses. Tornadoes often form on the fringes of the storm.

Each year, about 10 tropical storms develop. Many of these remain over the ocean, but a number of them become hurricanes each year. Hurricane strength is defined by the Saffir/Simpson Hurricane scale.

The Saffir/Simpson Hurricane Scale

Category	Definition-Effects
1	Winds : 74-95 mph (64-82 kt) No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Also, some coastal flooding and minor pier damage.
2	Winds : 96-110 mph (83-95 kt) Some roofing material, door, and window damage. Considerable damage to vegetation, mobile homes, etc. Flooding damages piers and small craft in unprotected moorings may break their moorings.
3	Winds : 111-130 mph (96-113 kt) Some structural damage to small residences and utility buildings, with a minor amount of curtain wall failures. Mobile homes are destroyed. Flooding near the coast destroys smaller structures with larger structures damaged by floating debris. Terrain may be flooded well inland.
4	Winds : 131-155 mph (114-135 kt) More extensive curtain wall failures with some complete roof structure failure on small residences. Major erosion of beach areas. Terrain may be flooded well inland.
5	Winds : 155+ mph (135+ kt) Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Flooding causes major damage to lower floors of all structures near the shoreline. Massive evacuation of residential areas may be required.

Hurricanes are given names by an international committee. This reduces confusion when two or more tropical cyclones occur at the same time. The list repeats itself every six years, but if a hurricane reaches a high damage threshold, the name is retired.

Atlantic Hurricane Names –

2008	2009	2010	2011	2012	2013
Arthur	Ana	Alex	Arlene	Alberto	Andrea
Bertha	Bill	Bonnie	Bret	Beryl	Barry
Cristobal	Claudette	Colin	Cindy	Chris	Chantal
Dolly	Danny	Danielle	Don	Debby	Dorian
Edouard	Erika	Earl	Emily	Ernesto	Erin
Fay	Fred	Fiona	Franklin	Florence	Fernand
Gustav	Grace	Gaston	Gert	Gordon	Gabrielle
Hanna	Henri	Hermine	Harvey	Helene	Humberto
Ike	Ida	Igor	Irene	Isaac	Ingrid
Josephine	Joaquin	Julia	Jose	Joyce	Jerry
Kyle	Kate	Karl	Katia	Kirk	Karen
Laura	Larry	Lisa	Lee	Leslie	Lorenzo
Marco	Mindy	Matthew	Maria	Michael	Melissa
Nana	Nicholas	Nicole	Nate	Nadine	Nestor
Omar	Odette	Otto	Ophelia	Oscar	Olga
Paloma	Peter	Paula	Philippe	Patty	Pablo
Rene	Rose	Richard	Rina	Rafael	Rebekah
Sally	Sam	Shary	Sean	Sandy	Sebastien
Teddy	Teresa	Tomas	Tammy	Tony	Tanya
Vicky	Victor	Virginie	Vince	Valerie	Van
Wilfred	Wanda	Walter	Whitney	William	Wendy

Source: National Hurricane Center

Severe Thunderstorms

Also see current mitigation measures or the hazard rating and thunderstorm hazard assessment.

The damages caused by thunderstorms are often underestimated. As lightning moves through the atmosphere, it can generate temperatures up to 54,000 degrees Fahrenheit. This intense heating generates shockwaves which turn into sound waves, generating thunder. Warm, humid conditions encourage thunderstorms as the warm, wet air updrafts into the storm. As warm, moisture rich air rises; it forms thunderstorm clouds, usually with a flattened top or an anvil shape, reaching to 40,000 feet or more. If this air is unstable, the conditions may cause hail, damaging winds and tornados.

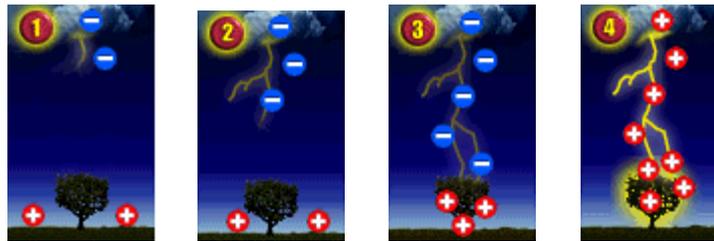


Figure Source: USA TODAY

Over the last 30 years, lightning strikes in the United States have killed an average of 62 people annually, mostly during the spring and summer months. Typical thunderstorms last anywhere from one-half hour to one hour. Most lightning strikes occur in the afternoon. 70 percent occur between noon and 6:00pm. This is because as air temperatures warm, evaporation increases. Sundays have 24 percent more deaths from lightning than any other day, followed by Wednesday. Lightning reports reach their peak in July.

Men are hit by lightning four times more often than women. Men account for an average of 84 percent of lightning fatalities and 82 percent of injuries. However, the actual number of deaths and injuries due to lightning have decreased over the last 35 years. This is attributed to improved forecasts and warnings, better lightning awareness, more substantial buildings, socioeconomic changes, and improved medical care.

Thunderstorm winds also cause widespread damage and death. Thunderstorm ‘straight-line’ wind occurs when rain-cooled air descends with accompanying precipitation. A thunderstorm is considered severe when winds exceed 57.5 mph. At the very extreme, winds of 160 mph have been recorded. These winds can smash buildings and uproot and snap trees, and are often mistaken for tornados.

‘Downbursts’ can occur during a thunderstorm. This is an excessive burst of wind that is sometimes confused with a tornado. Downbursts are defined as a surface wind in excess of 125 mph caused by a small scale downdraft from the base of a convective cloud. A downburst occurs when rain-cooled air within a convective cloud becomes heavier than its surroundings. Since cool air is heavier than warm air, it rushes toward the ground with a destructive force, exactly what triggers the sudden down rush is still unknown. A downburst appears to strike at a central point and blow outwards. Downbursts can be further classified into two categories: microburst and macroburst. A microburst is less than two-and-a-half miles wide at the surface, has duration of less than 5 minutes and winds up to 146 miles per hour. A macroburst: Greater than two-and-a-half miles wide at the surface, duration of 5-30 minutes with winds up to 117 miles per hour.

Tornados

Also see current mitigation measures or the hazard rating and tornado hazard assessment.

Tornados are produced during severe thunderstorms, which are created near the junction between warm, moist air and cold, dry air. Tornados derive their energy from the heat contained in warm, moist air masses. Tornados do not form during every thunderstorm. They occur when the moist, warm air is trapped beneath a stable layer of cold dry air by an intervening layer of warm dry air. This is called an inversion. If this is disturbed, the moist air will push through the stable air that is holding it down. This warm air will then condense as the latent heat it holds is released. This air will then spiral upwards. With the help of different types of winds, this spiral gains speed, producing a tornado.

A tornado path is generally less than .6 miles wide. The length of the path ranges from a few hundred meters to dozens of kilometers. A tornado will rarely last longer than 30 minutes. The combinations of conditions that cause tornados are common across the southern U.S. in early spring, especially in April and May. Tornados have been recorded as lifting and moving objects weighing more than 300 tons up to 30 feet. They can also lift homes off of their foundations and move them. Tornados can collect an incredible amount of debris, which they can whirl out of their winds at high velocities, and they are usually accompanied by heavy rain. The United States averages about 1,200 tornados a year.

Tornados can cause substantial property damage, injury, and death. Although more tornados hit the states that run from Texas up through Oklahoma, Kansas and into Nebraska, more people are killed by the tornados in the Southeast. The reasons given for the disparity include the different housing, geography and population density and the greater tendency of tornados in the Southeast to strike at night. Between January 1994 and November 2008, the Tornado Alley states of Texas, Oklahoma, Kansas, Nebraska and Missouri had 5,804 tornados, according to data compiled by the National Oceanic and Atmospheric Administration (NOAA). In those storms, 165 people died. In Southeastern states, tornados are less frequent by state but more deadly. In the same timeframe in the states of Alabama, Arkansas, Louisiana, Mississippi, Georgia, Florida, Tennessee, North Carolina and South Carolina, there were 5,880 tornados and 547 deaths.

The National Weather Service issues a tornado watch for a specific location when the conditions are favorable for tornados, and they are expected within a few hours. A tornado warning is issued when a tornado has actually been sighted or indicated by weather radar.

From its inception in 1971 until 2006, the Fujita Tornado Scale (shown below) was used to calculate the severity of a tornado.

Fujita Tornado Scale:

Category	Maximum Wind Speeds	Equivalent Saffir-Simpson Scale	Typical Effects
F0	40 – 72mph	NA	Gale Tornado. Light

			Damage: Some damage to chimneys; breaks twigs and branches off trees; pushes over shallow-rooted trees; damages signboards; some windows broken; hurricane wind speed begins at 73mph.
F1	73 – 112 mph	Cat 1/2/3	Moderate Tornado. Moderate damage; Peels surfaces off roofs; mobile homes pushed off foundations or overturned; outbuildings demolished; moving autos pushed off the roads; trees snapped or broken.
F2	113 – 157 mph	Cat 3/4/5	Significant Tornado. Considerable damage: Roofs torn off frame houses; mobile homes demolished; frame houses with weak foundations lifted and moved; boxcars pushed over, large trees snapped or uprooted; light-object missiles generated.
F3	158 – 206 mph	Cat 5	Severe Tornado. Severe damage: Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forests uprooted; heavy cars lifted off the ground and thrown; weak pavement blown off roads.
F4	207 – 260 mph	Cat 5	Devastating Tornado. Devastating damage: Well constructed homes leveled; structures with weak foundations blown off some distance; cars thrown and disintegrated; large missiles generated; trees in forest uprooted and carried some distance away.

F5	261 – 318 mph	NA	Incredible Tornado. Incredible damage: strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 200 ft; trees debarked; incredible phenomena will occur.
F6 – F12	Greater than 319 mph.	NA	The maximum wind speeds of tornados are not expected to reach the F6 wind speeds.

After discussion of methodology and scope, the Enhanced Fujita Scale was developed and as been used since 2007. This scale incorporates 28 damage indicators to determine the Degree of Damage (DOD). Instead of using the traditional F0-F12, the Enhanced Fujita Scales uses an EF0-EF5. Further information on both scales can be found at: <http://www.spc.noaa.gov/efscale>.

Hazardous Materials

Also see current mitigation measures or the hazard rating, hazardous materials assessment and known Extremely Hazardous Materials facilities.

Any area that manufactures hazardous materials (HAZMAT), or contains transportation routes (roads, rail) that transport hazardous materials are at risk for a hazardous material event. On average, over 7,000 HAZMAT events occur each year nationwide. On average 1,000 will be railway events. Trucks are responsible for most of the remainder of events. The average distance of trip lengths for gasoline transport is 28 miles, 260 miles is the average length for chemical trucks. Even though trucks account for most accidents, it is railway transport that has the greatest potential for concern in many areas. Collisions and derailments can cause very large spills as it is rare that a single car will be damaged. Extremely hazardous substances, as defined by the EPA, can pose serious threats, whether by rail or other ground transportation.

HAZMAT spills occur at fixed sites each year. Natural disasters, such as floods and earthquakes can cause HAZMAT releases or disturb old HAZMAT release sites. These same disasters can make it difficult to contain such events once they occur. Also, natural disasters can limit access to the spill, waterlines for fire suppression may be broken, and response personnel and resources may be limited. Flooding and high winds can quickly spread a contaminant, threatening agriculture, water supply and air.

HAZMAT releases pose short and long term threats to people, wildlife, vegetation, and the environment. HAZMAT materials can be absorbed through inhalation, ingestion, or direct contact with the skin.

Fixed Nuclear Facility

Also see current mitigation measures or the hazard rating.

Portions of Alexander County fall within the 50-mile ingestion Emergency Planning Zone (EPZ) of the Duke Energy, McGuire Nuclear Station. The 50-mile radius of the ingestion exposure EPZ is based on a number of considerations. One of those considerations is that the downwind range, potentially threatened by contamination, would generally be limited to about 10 miles or less from the power plant because of wind shifts, wind speed during the release, and radioactive decay. Another is that the particulate material from a radioactive plume would have been deposited on the ground within 50 miles of the facility. Considerable information regarding nuclear facilities can be found in the state emergency operations plan and in state emergency response procedures.

There have not been any incidents at McGuire Nuclear Power Plant that have affected Alexander County. Residents of Alexander County would be required to shelter-in-place during a release of a radiological hazard, if the conditions indicate that the contaminant plume (cloud) would pass over an area of the county. Limited evacuation of selected households is possible, but not considered likely to be needed, based on the evaluation of possible incidents by both Duke Power and the North Carolina Division of Emergency Management (NCEM). It has been determined that the likelihood that an event at McGuire Nuclear Station would have an adverse effect on citizens or property within Alexander County is less than one percent. In depth hazard vulnerability assessments have been ongoing with this facility for more than 20 years. Such assessments are beyond the scope of this hazard mitigation plan and are available from the NC Division of Emergency Management, Duke Energy, the Nuclear Regulatory Commission (NRC) and the Federal Emergency Management Agency (FEMA).

Terrorist Activity

Also see current mitigation measures or the hazard rating and terrorism hazard assessment.

Terrorism is the use of force or violence against persons or property in violation of the criminal laws of the United States for purposes of intimidation, coercion or ransom. Terrorists often use threats to create fear among the public, to try to convince citizens that their government is powerless to prevent terrorism and to get immediate publicity for their causes. The act of terrorism is a crime and the results of a terrorist act may be catastrophic.

The Federal Bureau of Investigation (FBI) categorizes terrorism in the United States as one of two types--domestic terrorism or international terrorism.

Domestic terrorism involves groups or individuals whose terrorist activities are directed at elements of our government or population without foreign direction.

International terrorism involves groups or individuals whose terrorist activities are foreign-based and/or directed by countries or groups outside the United States or whose activities transcend national boundaries.

There are numerous documents regarding the efforts of the United States, the states themselves and local jurisdictions to counter terrorist threats of both a domestic and international nature. The U.S. Department of Homeland Security is charged with the coordination of national investigative and response organizations, to determine threat levels and to issue warnings to the public through local, state and national official sources.

Domestic terrorist acts such as the 1995 Oklahoma City bombing of the Murrah Federal Building, which left 168 persons dead and international terrorist acts such as the destruction of both towers of the World Trade Center in 2001, which killed more than 6,000, have shocked and awakened our citizens to the very real threats and acts of small groups of terrorist through out the world. The use of biological weapons, as in the case of the anthrax letters in 2001, can cause nationwide panic. While such panic is unfounded, public perception may lead to increased anxiety and panic among normally rational citizens.

Other or unknown hazards (biologics, disease, etc.)

Also see current mitigation measures or the hazard rating.

This particular threat is perhaps one of the most troubling and causes planners considerable concern because the causes and ramifications are largely unknown. There are over 60,000 known chemicals as well as hundreds of diseases that effect human populations. There are also diseases that affect livestock as well as naturally occurring biological concerns. A fire at a plastics recycling center, for example, may cause a significant local environmental impact from smoke and water runoff. The smoke may be toxic and cause death or injury to the human population as well as local livestock. Water runoff may kill aquatic life and contaminate drinking water supplies. Additional hazards from smoke may be as minor as traffic congestion and accidents in the immediate area to long term breathing difficulty in exposed populations. This one example is an indicator of an unknown where the original product (plastics) presents little concern, but when burned causes numerous hazards. Other concerns such as anthrax and foot and mouth disease are often classified as unknowns until laboratory results have been examined. This can sometimes take days or weeks.

Power Failure

Also see current mitigation measures.

A major electrical power failure is defined as a failure of the electrical distribution system that will exceed twenty four hours in duration and affect greater than 33 percent of the geographical area of the county. Electrical distribution systems can be interrupted for a number of reasons, but historically main causes include high winds from tornados, hurricanes and severe thunderstorms, and severe winter storms, including ice. A prolonged major electrical distribution system failure during the middle of winter accompanied by very cold temperatures can have dramatic effects on a population. There are two major distributors of electricity in Alexander County - Duke Energy and EnergyUnited. As of 2003, Duke Energy reports 7,620 customers with a reliability rate of 99.97 percent or 0.27 days where electricity may not be available. Energy United reports 6,176 customers with a reliability rate of 99.83 percent or 0.28 days where electricity may not be available. This is less than one percent and therefore not considered a threat for mitigation purposes.

Mass Fatality

Also see current mitigation measures.

Defined as any occurrence in which local resources to address the fatalities of an incident are overwhelmed. Mass fatality incidents are rare but are most likely to occur in transportation accidents. While mass fatality incidents are possible in severe weather, they are also rare. When analyzed, it was determined that this threat had a less than one percent likelihood of occurrence.

Large Structural Fires

Also see current mitigation measures.

Generally a large structure is defined as any structure exceeding 25,000 square feet. Large structural fires therefore would include fully involved structures of this size or greater, such as hospitals, government centers, manufacturing facilities, warehouses, barns, etc. Multiple stories may be involved as well and constitute square footage. When analyzed, it was determined that this threat had a less than one percent likelihood of occurrence.

Landfill Fires

Also see current mitigation measures.

Landfill fires are not restricted to publicly owned landfill operations. Private landfills, construction and demolition landfills are also included. Landfill fires are perhaps some of the most difficult fires to fight because they are often deep beneath tons of debris or other such materials. Landfill fires can be fueled by methane gas trapped in pockets or by wood and paper debris. Effective methods of fighting such fires have been developed by the Alexander County Solid Waste Department. Alexander County does not own the landfill and governmental mitigation efforts are not within the scope of the hazard mitigation plan. When analyzed, it was determined that this threat had a less than one percent likelihood of occurrence.

Landslide

Current mitigation measures are incorporated in the outlines for hurricane, flood, wildfire and earthquake, elsewhere in this plan.

According to the United States Geological Survey (USGS), landslides are major geologic hazards that occur in all 50 states, causing \$1-2 billion in damages and resulting in an average of more than 25 fatalities each year (USGS, 1997). Landslides are especially troubling because they often occur with other natural hazards, such as earthquakes and floods.

Deadly manifestations of landslides include debris flows. While some landslides move slowly and cause damage gradually, others move so rapidly that they can destroy property and take lives suddenly and unexpectedly. Debris flows (also referred to as mudslides, mudflows, or debris avalanches), are a common type of fast-moving landslide that generally occur during intense rainfall on water-saturated soil. They usually start on steep hillsides as soil slumps or slides that liquefy and accelerate to speeds as great as 35 miles per hour or more. They continue flowing down hills and into channels depositing sand, mud, boulders, and organic material onto more gently sloping ground. Their consistency ranges from watery mud to thick, rocky mud, which is dense enough to carry boulders, trees, and cars. Debris flows from many different sources can combine in channels, where their destructive power may be greatly increased.

Historical records suggest that destructive landslides and debris flows in the Appalachian Mountains occur when unusually heavy rain from hurricanes and intense storms soaks the ground, reducing the ability of steep slopes to resist the down slope pull of gravity. During Hurricane Camille in 1969, such conditions generated debris flows in Nelson County, Virginia. The hurricane caused 150 deaths, mostly attributed to debris flows, and more than \$100 million in property damage. Likewise, 72 hours of storms in Virginia and

West Virginia during early November 1985 caused debris flows and flooding in the Potomac and Cheat River basins that were responsible for 70 deaths and \$1.3 billion in damage to homes, businesses, roads, and farmlands.

Nor'easter

Current mitigation measures mirror those for hurricane.

The presence of the Gulf Stream off the eastern seaboard during the winter season acts to dramatically enhance surface horizontal temperature gradients within the coastal zone. This is particularly true off the North Carolina coastline where, on average, the Gulf Stream is closest to land north of 32° latitude. During winter offshore cold periods, these horizontal temperature gradients can result in rapid and intense destabilization of the atmosphere directly above and shoreward of the Gulf Stream. This air mass modification or conditioning period often precedes wintertime coastal storm development.

The temperature structure of the continental air mass and the position of the temperature gradient along the Gulf Stream drive this cyclone development. As a low pressure deepens, winds and waves can quickly increase and cause serious damage to coastal areas as the storm generally moves to the northeast. A pair of researchers, Davis and Dolan (1993) proposed an intensity scale that is based upon levels of coastal degradation. See the table below:

The Dolan-Davis Nor'easter Intensity Scale

(Davis and Dolan, 1993)

Storm Class	Beach Erosion	Dune Erosion	Overwash	Property Damage
1 (Weak)	Minor changes	None	No	No
2 (Moderate)	Modest; mostly to lower beach	Minor	No	Modest
3 (Significant)	Erosion extends across beach	Can be significant	No	Loss of many structures at local level
4 (Severe)	Severe beach erosion and recession	Severe dune erosion or destruction	On low beaches	Loss of structures at community-scale

5 (Extreme)	Extreme beach erosion	Dunes destroyed over extensive areas	Massive in sheets and channels	Extensive at regional-scale; millions of dollars
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Analysis of nor'easter frequency by researchers reveals fewer nor'easters during the 1980s. However, the frequency of major nor'easters (class 4 and 5 on the Dolan-Davis Scale) has increased in recent years. In the period 1987 to 1993, at least one class 4 or 5 storm has occurred each year along the Atlantic seaboard of the United States, a situation duplicated only once in the last 50 years.

In North Carolina, the impact of the nor'easter is dramatized by the threatened state of the Cape Hatteras Lighthouse. The threat of the nor'easter can fundamentally be confined to those coastal counties of North Carolina that have experience hurricanes in this century, although its impact often reaches much further inland with large-scale events. Table 3 of the Identifiable Hazards Ratings, depicts Alexander County's potential vulnerability to nor'easters.

Sources of information contained in this Hazard Identification document and elsewhere throughout this Disaster Mitigation Plan were derived from:

Federal Emergency Management Agency	North Carolina DCCPS - Division of Emergency Management	County computer aided dispatch records / EM43 Reports
Department of Homeland Security	NC Department of Environment and Natural Resources	Duke Energy
National Oceanic and Atmospheric Administration	NC Department of Agriculture	Energy United
The Tornado Project	Wake Forest University - Disasters in the United States	North Carolina Utilities Commission
National Weather Service	NC Department of Administration	U.S. Army Corps of Engineers
Department of Transportation	North Carolina General Statutes	Codes and ordinances of the town (Planning office)
Federal Aviation Administration	North Carolina Highway Patrol	Codes and ordinances of the county (County planner)
Department of Energy - Nuclear Regulatory Agency	North Carolina Division of Forest Resources	County Geographical Information Systems (GIS/Mapping)
U.S. Department of Agriculture	NC Office of the State Geologist	Hazardous Materials Emergencies - Cashman – 1998
Blue Sky foundation	U.S. Geological Survey	National Association for Search and Rescue (NASAR)
The Emergency Management Institute	FEMA - HAZUS computer models and projections	National Fire Protection Association (NFPA)

Hazard Vulnerability Assessment

Drought

Drought is considered a "common hazard" and all areas of the county and the Town of Taylorsville are vulnerable. Drought is equally likely to happen in any area of the county, but the most significant financial losses are likely to be in areas of the county that are mostly agricultural. This is especially true for the most common type of drought, agricultural. Also see current hazard mitigation



Since 1999 Alexander County and Taylorsville, as well as the majority of North Carolina cities, towns and counties have faced a moderate to severe drought.

Drought has several meanings, as outlined in the Hazard Identification. Generally, drought reduces the amount of water available for agriculture, municipalities, industry, commerce, tourism, fire suppression, and wildlife. Reduction of electrical power generation and water quality deterioration is likely.

Water shortages in some communities have had dramatic effects on local budgets, revenues, and citizens. Near-panic situations among some members of the public have caused elected officials to agree to spend considerable revenue to assist the public.

As drought continued in North Carolina into the summer of 2002, it led to a declaration of disaster for agriculture drought. This led to funding becoming available for many farmers in the form of Small Business Administration low interest loans.

The Drought Management Advisory Council, a council of various state agencies, is organized to coordinate activities of state agencies in the assessment and the response to

drought and activates the Drought Assessment and Response Plan, a part of the North Carolina EOP. The Agricultural Assistance Act of 2003 may provide assistance to the agricultural community during times of crop or livestock losses during drought periods.

Drought effects are often severe. Drought can last for extended periods and drought affects all citizens, businesses and government. Alexander County and Taylorsville governments have the authority to restrict use of certain water resources. These restrictions and how they are imposed are found in ordinance. All Alexander County ordinances can be found at: <http://www.alexandercountync.gov>.

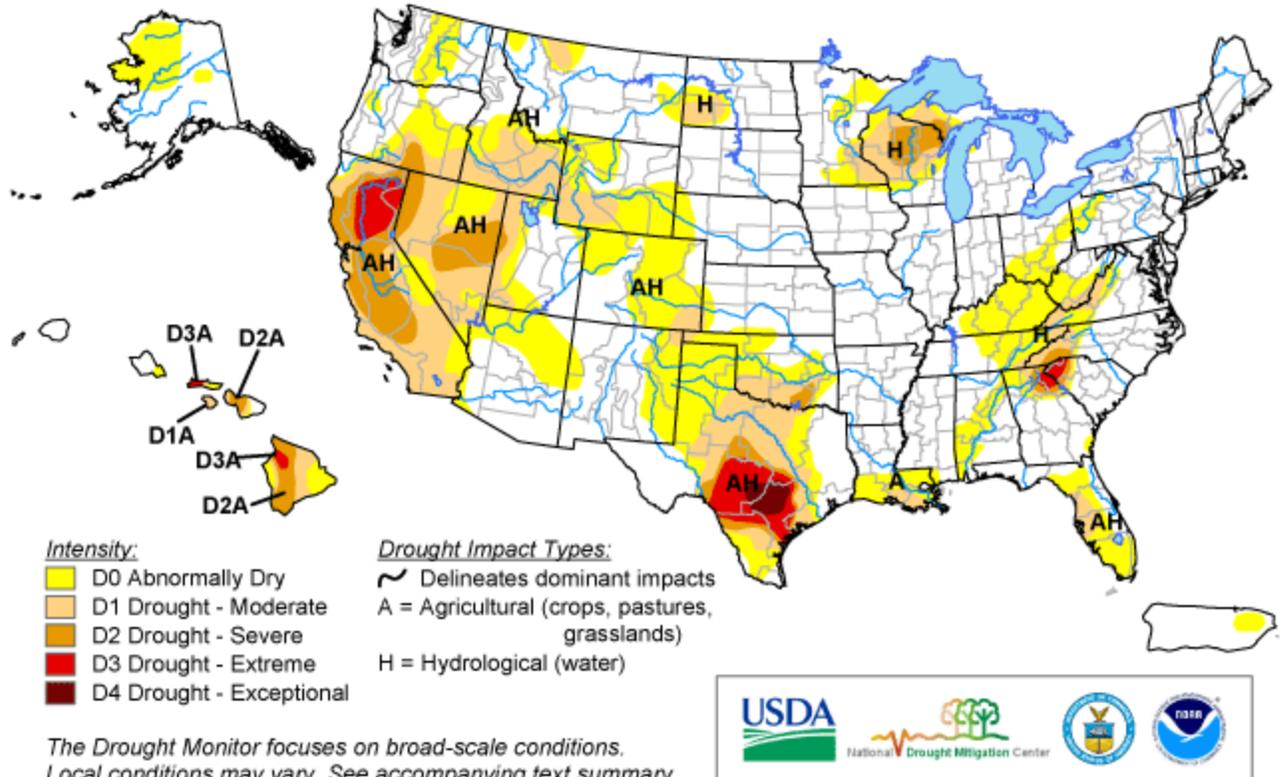
In recent years, drought conditions in the County and the state have been particularly difficult. During the years of 2002 and 2008, the county faced conditions categorized at the most dire level of “extreme drought”. Designation of extreme drought is largely determined by the degree of the water deficiency, the time period, and the size of the area affected. During the last few years the state has faced restrictions on watering, including restrictions on irrigation, on non-essential uses of water, washing vehicles or impervious surfaces, filling of swimming pools and serving water in restaurants. In addition, effects such as loss of hay and pasture land have been felt throughout the county and continue today. There have also been several farms which were forced to reduce in size as a result of the drought. This hazard is one that the county and Town of Taylorsville will continue to watch very closely as the threat has the potential to escalate in coming years.

**** Estimated potential economic Impact from a catastrophic, prolonged meteorological, agricultural, hydrological or socioeconomic drought.**

Structural Damage (generally due to loss from fire or abandonment)	\$13,440,000
Non - structural (i.e. crop damages, livestock losses, etc.)	\$8,800,000
Contents	\$1,000,000
Lost inventory (livestock losses, business losses-fire)	\$3,050,000
Capital losses	\$2,750,000
Wages lost (fire, agriculture loss, abandonment)	\$7,500,000
(\$)Water demand increased costs	\$6,282,279
Total Potential Losses	\$42,726,279

U.S. Drought Monitor

January 20, 2009
Valid 8 a.m. EST



<http://drought.unl.edu/dm>

Released Thursday, January 22, 2009
Author: Laura Edwards, Western Regional Climate Center

($\$$) Highest 25% of Water Bills for Households with Median Income
* Avg income =23,738. Avg household expense for water =1.0% \$237.38 per annum)
based on an median cost increase per household of 2.5%
Source: *Public Utility Consulting Selinsgrove, PA*
**Based upon total tax value (Alexander County Tax Department) at a maximum loss of 1% of total tax value or actual estimated losses
*** NCDC and NOAA

The probability of future drought events is dependent on a number of conditions and can be fairly difficult to predict. There are a variety of entities working on identifying the future threats of droughts in Alexander County as well as ways to mitigate the threat. Based on historical data, it is likely that the County will continue to face a threat from drought going forward.

Earthquakes

Earthquakes, or the potential for earthquakes is considered a "common hazard" and all areas of the county and the Town of Taylorsville are vulnerable. Earthquakes are equally

likely to affect any area of the county, but the most significant financial losses are likely to be in areas of the county that are most densely built up and most heavily occupied. Also see current earthquake mitigation measures.



Earthquakes are relatively infrequent but not uncommon in North Carolina and are also unpredictable. While no significant damages from earthquakes have ever been recorded in Alexander County, the proximity to earthquake faults makes Alexander County, as well as all the municipalities vulnerable to such damages. The charts and images below depict recent history. The entire county, including the municipalities, is vulnerable, as is the entire county population.

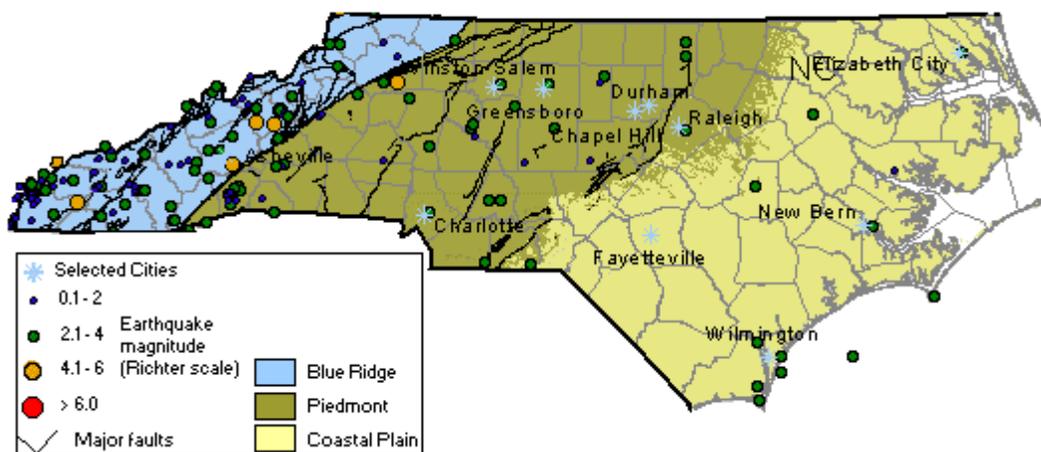
Please note that an earthquake's severity is expressed in both magnitude and intensity. The two terms are sometimes confused for one another. Magnitude is related to the amount of seismic energy released at the hypocenter of an earthquake. It is measured using the Richter Magnitude Scale.

Intensity is based on the observed effects on the earth's surface such as ground shaking or a building moving. These effects vary according to your location relative to the epicenter. Intensity is measured using the Modified Mercalli Intensity Scale.

The following is an abbreviated description of the 12 levels of Modified Mercalli intensity.

I.	Not felt except by a very few under especially favorable conditions.
II.	Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
III.	Felt quite noticeably by persons indoors, especially on upper floors of buildings.

	Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration similar to the passing of a truck. Duration estimated.
IV.	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V.	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned.
VI.	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII.	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII.	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX.	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X.	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rail bent.
XI.	Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.
XII.	Damage total. Lines of sight and level are distorted. Objects thrown into the air.



*A map showing geological and seismic information for North Carolina.
(Image courtesy: North Carolina Geological Survey)*

**** Potential Economic Impact in Alexander County (including Taylorsville) from a greater than 6.0 (Richter scale) earthquake**

Structural Damage	\$71,609,512
Non - structural (i.e. power distribution systems, etc.)	\$228,151,238
Contents	\$94,924,238
Lost inventory	\$4,996,012
Relocation losses (cost of relocating population)	\$73,274,850
Capital losses	\$33,306,750
Wages lost	\$39,968,100
Retail income losses	\$28,310,737
Total Potential Losses	\$573,577,830

Source

** HAZUS Information Data base - FEMA - Dunn and Bradstreet 1994. Adjusted to 2002 by 31%. Further adjusted by 27.125% for 2009. Worst case scenario.

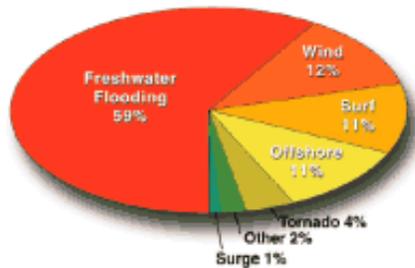
The probability of future earthquake events is dependent on a number of conditions and can be fairly difficult to predict. Based on historical data, it is likely that the County will continue to face a threat from earthquakes going forward. The threat from earthquakes is most pronounced, not in its frequency of occurrence like severe thunderstorms or drought, but in the amount of damage it could potentially inflict on the County.

Flooding

The potential for flooding is considered a "common hazard". While most areas of the county and the Town of Taylorsville have never experienced more than minor, short lived, flash flooding, with no losses, there is potential for flooding in many areas.

Also see current hazard mitigation measures and Alexander County and Taylorsville FIRMs.

Alexander County and Taylorsville have experienced the effects of minor flooding. Fortunately there are only a few of areas that are subject to routine, repetitive, flash flooding and in these areas there are not any known residential or commercial structures at this time.



To examine its vulnerability to flooding and make an appropriate assessment, the county and the municipality chose several sources for information. One is the HAZUS program offered by FEMA. HAZUS provides a computer model whereby certain data can be obtained based on local conditions. The flood loss estimation methodology consists of two basic analytical processes: flood hazard analysis and flood loss estimation analysis. In the hazard analysis module, characteristics such as frequency, discharge, and ground elevation are used to estimate flood depth, flood elevation, and velocity. In the loss estimation module, physical damage and economic loss is calculated based on the results of the hazard analysis. The results are displayed using a series of reports. Another method was to examine currently available FIRMs also provided by FEMA. These FIRMs have been placed as a layer upon the Alexander County GIS system and were instrumental in the development of the number of structures likely to be affected. This floodplain layer was then used to input data into the damages model. The results are listed below.

Results of the examination of the history of floods, flooding, dam breaks and levee failures for Alexander County and Taylorsville, can be found in Table 2 of this document. The likelihood of a major flood is of moderate concern.

Future flood mitigation goals and objectives can be found in the Implementation section of this plan. In general, the primary goal for mitigating flooding in Alexander County and Taylorsville is the retrofit or relocate residential structures currently located in the 100 year flood plain to a base elevation one foot above the flood plain and participate in available buy-out programs.

For the purposes of planning, the vulnerability assessment to this hazard used Alexander County GIS and the contour layer. Using this system allowed access to a foot print of every structure currently on maps and currently located in the floodplain. To be of

maximum benefit to Alexander County it was felt that listing structures by road name would be best. Emergency services may then use this information to enhance warning systems to persons in affected areas. Enhancement of warning systems, however, is not part of this analysis. There may be overlaps in population because a number of these waterways merge at various points. Also many creeks empty into, or become part of, the Catawba River. Catawba River levels are controlled by dams and flood gates. Therefore high water flooding in these areas is unlikely. Still, they are considered to have a potential threat from flooding. The majority (approximately 73 percent) of structures and population that could potentially be affected fall into this category. Digital images of the Alexander County 100 year flood plain and Taylorsville 100 year flood plain are available. Maps are included in Appendix Two of this plan.

FIRMs are available from FEMA, Alexander County Emergency Management and the Alexander County Planning Department. Alexander County's National Flood Insurance Program (NFIP) participation number is 370398. Alexander County continues to participate in the NFIP regulating all floodplain development and substantial improvements through adoption and enforcement of floodplain management requirements in all special flood hazard areas, participates with NCEM in floodmap updates and revisions, and provides monitoring and community assistance through the Alexander County Planning Department. The Town of Taylorsville does not participate in the NFIP but may consider participation at a later time. Currently, the Town is in the process of gathering the necessary documentation to participate in the NFIP. The Town meets many of the requirements set forth by the program and is in the process of gaining the administrative and leadership support necessary to carry the application and adoption process through to completion. The Town anticipates being enrolled in the program by the next mitigation plan update.

There are no known critical facilities in either the 100 or 500 year flood plain in the county or the Town of Taylorsville. The Town of Taylorsville does experience localized flooding in three areas of concern. These areas of concern, while not within the currently mapped floodplain, are known to local officials and residents. Heavy rains for periods of 24 to 48 hours appear to cause certain drainage problems along a tributary of Muddy Creek. No loss, repetitive loss or severe repetitive loss has occurred to date. These "special concern" areas are a goal of the Town of Taylorsville to mitigate. See Mitigation Implementation for the specific goal. These "special concern" areas in Taylorsville are:

Table SC1

Location	Structures within 100'	Critical facilities within 100'
Northwood Park Road, 100' either side of the center of the tributary.	0	0

South Center Street, 100' either side of the center of the tributary, near Hancock and Moore	0	0
Northmont Road, 100' either side of the tributary.	0	0

The table below identifies residential properties within the 100 year floodplain. Elevation, discharge, and flow were not calculated and location information was extrapolated only from within the boundary of the 100 year flood plain. The following are maximum numbers for planning purposes and analysis only. Structural counts are residential structures within the floodplain. There are larger numbers of structures including outbuildings, docks, boathouses, and others, but they were not considered in this table as they will likely not be eligible for mitigation-related funding or projects. There were not any habitable structures in the Town of Taylorsville listed or located on current FIRMs within the Special Flood Hazard Area (SFHA) and no indications that development had occurred. Examination of proposed development in Taylorsville gives no indication that any habitable structures are likely to be built in the SFHA in the future.

Table F1

Total Residences and Population in Flood Plain			
Number of residential or commercial structures:		Population estimate:	
100 Year Flood Plain	29	100 Year Flood Plain	100
House Number	Road Name		
HIDDEN VALLEY			
HIDDEN VALLEY			
HIDDEN VALLEY			
DOVER CHURCH			
DOVER CHURCH			
ALL HEALING SPRINGS			
CHURCH			
PRINCESS			
PRINCESS			
OLD DEVIL TRACK			
OLD DEVIL TRACK			
TJ COVE VIEW			
WAYSIDE CHURCH			
LOUDONYA			
MARINA			
STEWART ROCK			
HOUSER FARMS			
SHARPE			
1ST AVENUE			
GALAXIE			

INDUSTRIAL
NESTER
JIMMY SHOOK
PERLMAN'S
PEACEFUL
ALL HEALING SPRINGS
HOUCK MOUNTAIN
MARINA

Table F2: Damage Estimates from 100 Year Flood Event

Structural Damage	\$47,541,881
Non - structural (i.e. vehicles, boats, etc.)	\$36,736,332
Contents	\$696,724
Lost inventory	Not calculated
Relocation losses (cost of relocating population)	\$30,402,482
Capital losses	Not calculated
Wages lost	\$3,166,925
Retail income losses	Not calculated
Total Potential Losses	\$85,481,645

* Source - HAZUS - Mathematical calculation based on 100% of all property effected (25% structural, 25% contents)
N/A indicates the data was not available or not calculated. Adjusted for 2009 by 3% annually.

The probability of future flood events is dependent on a number of conditions, and the potential damage from such events is largely dependent on the growth that the county experiences and where that growth occurs. Based on historical data, it is likely that the County will continue to face a threat from flooding going forward.

Forest / Wildfires

The potential for wildfires, even in an urban environment, is considered a "common hazard" and all areas of the county and the Town of Taylorsville are vulnerable. Wildfires are equally likely to affect any area of the county, but the most significant financial losses are likely to be in areas of the county that are most densely built up and most heavily occupied. Proximity to forests and underbrush are also factors. Also see current hazard mitigation.



Wildfires, also known as forest fires, are a naturally occurring hazard that faces every community. While they do occur naturally, and can be started by lightning, more often the cause is man-made such as a camp fire, a smoldering cigarette or sparks from someone burning brush or trash.

The North Carolina Department of Environment and Natural Resources, Division of Air Quality says "There are a lot of misunderstandings about open air burning in North Carolina. Some people think it is okay to burn trash in barrels because they have always done it that way. It's not! Others think it is always okay to burn leaves and branches in the fall, but that is not so in cities and counties that pick up yard waste".

The North Carolina Department of Environment and Natural Resources, Division of Air Quality enforces the state open burning rules and many local governments have additional restrictions on outdoor fires. Violating rules can be expensive, not just in fines (up to \$25,000) but in the cost of other fires that may result. Our local fire departments respond to dozens of "woods fires" every year as does the North Carolina Division of Forest Resources (also known as the Forestry Service).

Naturally occurring dead or dying trees in our forests and on other public and private property often add fuel to a fire and as the fuel builds up from ice storms, drought, pine beetle damages, tornados and hurricanes (*Hugo 1989*) the risk for significant wildfires increases. In 2008, Alexander County experienced 28 fires with more than 34 acres burned. Nineteen of these fires were carelessly started by man-made sources.

The entire county and all citizens have the potential to experience loss from wildfire. However, according to concerns expressed by fire officials in Alexander County, there are three major areas that require critical attention. These areas were defined for a number of reasons. Residential buildup, fuel buildup, access, terrain and other factors led to the development of these three areas.

Alexander County and NCDFR have jointly developed a number of pro active mitigation measures to reduce the vulnerability to wildfire.

Table WF 1

Location:	Number of structures	Number of Acres	Cost per acre	Timber cost	Structure Loss	Total
Barrett Mountain	36	2,250	6,000	2,000	\$3,240,000	\$21,240,000
Hunters Ridge	31	250	6,000	2,000	\$2,790,000	4,790,000
Jake Reese Court	40	250	6,000	2,000	\$3,600,000	5,600,000
						Gt: \$31,630,000

(* The figures above are estimates based on average current property valuation, timber valuation and new residential construction costs in Alexander County and assume worst case scenario. Updated for by 3% annually. Source - NCDNR - NCDFR)

The Division of Forest Resources has the responsibility for protecting state and privately owned forest land from forest fires. The program is managed on a cooperative basis with the counties. All 100 counties participate in the forest fire protection program. Emphasis in the fire program includes fire prevention efforts, pre-suppression activities (including extensive training of Division and non-Division personnel), aggressive suppression efforts on all wildfires and law enforcement follow-up.

Staff assistance in forest fire control is provided to the field units by the Forest Protection Section Fire Staff, consisting of a Program Head, Senior Staff Forester for Training, Staff Forester for Operations & B.R.I.D.G.E, Staff Forester for Research and Development and a Law Enforcement Staff of four investigators.

The Division has a very extensive training program in forest fire protection. The National Incident Management System (NIMS) training courses are used in all fire organization and fire behavior training. The Incident Command System (ICS) is used to organize and manage all forest fires. The ICS is designed to organize and manage all natural and man-caused disasters other than wars and civil disturbances. Maintaining a well trained, proficient forest fire control organization is very similar to maintaining a well trained Army. New personnel are constantly being trained to replace veterans that are retiring or leaving the program due to promotions, transfers, or disability. Veteran fire fighters periodically undergo refresher training in suppression tactics, strategy, organization, and management.

The probability of future wildfire events is dependent on a number of conditions locally and in surrounding communities and the State as a whole. Based on historical data, it is likely that the County will continue to face a threat from wildfires going forward. The frequent good conditions for wildfires within the County will continue to make it vulnerable to the effects of wildfires going forward

Chemical - Fixed Facility

Emergency planning information from the Alexander County LEPC is available for the following facilities determined by Superfund Authorization and Reauthorization Act (SARA) (Title III) to hold reportable quantities of extremely hazardous materials. This planning information is available through Alexander County Emergency Management.



The listing is as complete as possible as of January 2009. The listing is only for facilities that have reported. Additional companies report under Title III, but none use extremely hazardous substances. Information regarding these facilities and Tier II reports are available for inspection through Alexander County Emergency Management and the Alexander County LEPC and are not part of this assessment.

Extremely Hazardous Substances (EHS), are those materials defined in Appendix A of the Federal Register, Volume 52, Entitlement is "The List of Extremely Hazardous Substances and Their Threshold Planning Quantities".

Table HM1

Facility	Address	CAS # of EHS
Town of Taylorsville Waste Water Treatment	Taylorsville, NC	7782-50-5

Chemical – Transportation

Chemical events are not uncommon in the county or the Town of Taylorsville. Most chemical events will have relatively minor county-wide or town-wide impact. However, their frequency and the nature of the chemical have the potential to cause large numbers of deaths and injuries in both the county and the Town of Taylorsville. Populations, generally within a one-mile radius and one-mile downwind, are the most vulnerable, as indicated by the maps and information below. Also see current HAZMAT mitigation measures.



Within its boundaries, Alexander County has U.S. Highways, North Carolina highways and secondary roads. The N.C. Department of Motor Vehicles estimates 2,500 commercial carriers pass through Alexander County every twenty four hours on the U.S. and NC Highway system alone. In June of 2008, EnviroSafe Consulting and Investigations Inc. executed an exhaustive Commodity Flow Study to examine the movement of hazardous materials, including chemicals, within the county. The commodity flow study took four dayshift observation periods and four nightshift periods. The total number of shipments documented was 1,006, with 29 identified as hazardous materials shipments. The report of the Commodity Flow Study can be found in Appendix Six.

Examining a one mile corridor along each major route, it has been determined that approximately 65% of the population of Alexander County (*36,656 x 65% = 23,826) or 23,826 persons live or work within one mile of at least one major highway. According to the County Comprehensive Plan Alexander County's population is estimated to be 47,997 by 2030 and the population density in the one mile corridor is expected to increase. Keeping the same 65% population effected, by 2030 over 31,200 people will live or work within the combined one mile transportation corridors defined below and outlined in the demographics portion of the County Emergency Operations Plan.

For the purposes of planning the vulnerability to this hazard is divided into two groups: Critical Facilities and Commercial and Residential structures. Each corridor is listed.

There are overlaps in facilities and residential in each corridor. Often highways intersect and or parallel one another.

It should be noted that while the overall area is high, the population in the corridor is high, and the potential for occurrence is high (See hazard matrix for rating), the potential to effect the entire population in each corridor is low. Hazardous materials spills or leaks generally do not affect areas larger than a one mile perimeter and one mile down wind.

Table HM 2

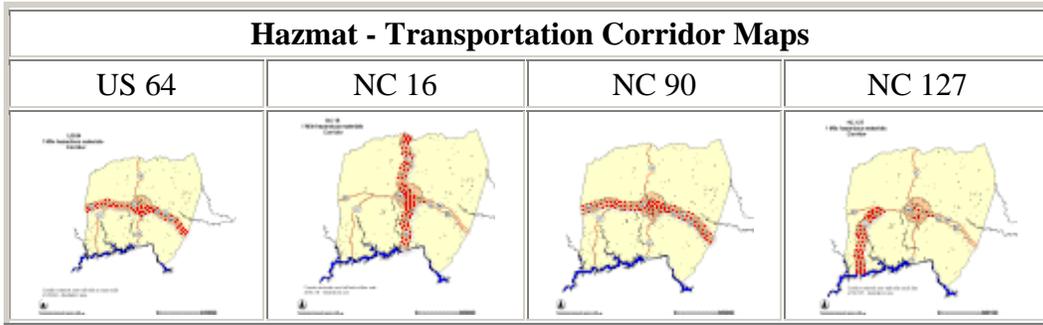


Table HM3

US 64

Critical Facilities in one mile corridor (number)		Commercial Facilities in one mile corridor (approximate number)	Residential in one mile corridor (approximate number)
12		54	1,875
Critical Facilities in one mile corridor (name)			Residential population in one mile corridor (approximate number)
Alexander County Administrative Offices	Alexander County School Bus Garage	56	6,053
EMS - Taylorsville Base	Alexander County Board of Ed		
Alexander County Social Services	Ellendale Fire Department		
Alexander Central High	Alexander County		

School	Planning and Development		
Hiddenite Fire Department	Stony Point Fire Department		
Ellendale Elementary School			

Table HM 4

NC 16

Critical Facilities in one mile corridor (number)		Commercial Facilities in one mile corridor (approximate number)	Residential in one mile corridor (approximate number)
15		79	1,950
Critical Facilities in one mile corridor (name)			Residential population in one mile corridor (approximate number)
Alexander County Court House	Alexander County Courthouse Annex		6,435
Alexander County Sheriff's Department	Taylorsville City Hall / City Office Building		
Alexander County Jail	Taylorsville Police Department		
Alexander County Communications (EOC) Center	Alexander County Health Dept		
Central Alexander/Taylorsville Fire Dept.	Sugar Loaf Fire Department		
Wittenburg Fire	Alexander		

Department	Central high School		
Sugar Loaf Elementary School	Taylorsville Elementary School		

Table HM 5

NC 90

Critical Facilities in one mile corridor (number)		Commercial Facilities in one mile corridor (approximate number)	Residential in one mile corridor (approximate number)
21		87	2,266
Critical Facilities in one mile corridor (name)			Residential population in one mile corridor (approximate number)
Alexander County Court House	Alexander County Courthouse Annex		7,477
Alexander County Administrative Offices	Taylorsville City Hall / City Office Building		
Alexander County Sheriff's Department	Taylorsville Police Department		
Alexander County Jail	Alexander County Health Dept		
Alexander County Communications (EOC) Center	Alexander Rescue Squad & EMS, Inc		
Alexander County Planning and Development	Ellendale Fire Department		

Central Alexander/Taylorsville Fire Dept.	Stony Point Fire Department		
Hiddenite Fire Department	Hiddenite Elementary School		
Alexander Central high School	Taylorsville Elementary School		
Stony Point Elementary School	Taylorsville Airport		
NC Department of Transportation			

Table HM 6

NC 127

Critical Facilities in one mile corridor (number)	Commercial Facilities in one mile corridor (approximate number)	Residential in one mile corridor (approximate number)
3	19	873
Critical Facilities in one mile corridor (name)		Residential population in one mile corridor (approximate number)
		2,880
EMS - Bethlehem Base	Ellendale Fire Department	
Bethlehem Elementary School		

The probability of future chemical spill events is dependent on a number of conditions, most importantly, the continuation of the basing and transportation of the hazardous chemicals within the County. Based on historical data, it is likely that the County will continue to face a threat from chemical spills going forward. It is of critical importance that regulation of such facilities and transports be monitored to ensure compliance with regulations.

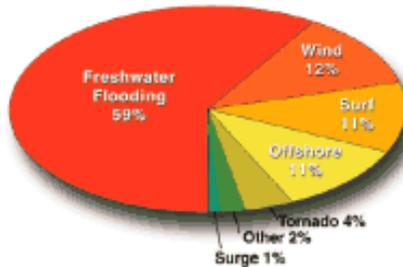
Hurricanes

Hurricanes, or the latent effects of hurricanes are considered a "common hazard" and all areas of the county and the Town of Taylorsville are vulnerable. Hurricanes are equally likely to affect in any area of the county, but the most significant financial losses are likely to be in areas of the county that are most densely built up and most heavily occupied. Also see current hazard mitigation measures.



Alexander County, Hiddenite, Stony Point and Taylorsville have all experienced the inland effects of hurricanes. Perhaps the most memorable hurricane to directly affect the area was Hurricane Hugo in 1989. Other storms however have had other impacts ranging from flooding to "spin-off" tornados, storm surge, high winds and tropical storms and depressions. Generally these storms effect the entire population. Past effects have been direct devastation to homes and business as well as public buildings and utilities.

Hurricane Hugo resulted in structural and non-structural (i.e. power distribution system) damages over \$8 million dollars.



Although no deaths have been recorded in Alexander County as a direct cause of a hurricane, most deaths occurring from hurricanes come as results of inland flooding. Freshwater floods accounted for more than half (59 percent) of U.S. hurricane deaths over the past 30 years. 63 percent of U.S. hurricane deaths during that period occurred in inland counties.

This vulnerability assessment assumes worst case, Category 5 hurricane that travels the entire length or width of the county:

Table H1

**** Potential Economic Impact from an F5 tornado, Cat 5 hurricane, or catastrophic wind event**

Structural Damage	\$71,357,159
Non - structural (i.e. power distribution systems, etc.)	\$227,347,226
Contents	\$94,589,722
Lost inventory	\$4,978,406
Relocation losses (cost of relocating population)	\$73,016,627
Capital losses	\$33,189,376
Wages lost	\$39,827,251
Retail income losses	\$28,210,970
Total Potential Losses	\$571,556,527

The potential for debris generation is provided below as information for planners, solid waste professionals and county executives as a planning tool for the need for possible landfill space. Debris management following a major wind event is a costly and time consuming portion of disaster recovery. Costs are associated with debris and efforts to reduce the amount of debris that would be stored in a landfill may become a mitigation measure for the future.

Table H2

***** Potential Debris generated from an F5 tornado, Cat 5 hurricane or catastrophic wind event**

TOTAL CUBIC YARDS	435,831
Total Acres needed to bury	45
Storage acres needed	27
Processing acres needed	18
Woody Debris (cubic yards)	130,749
Construction and demolition debris	305,082

(cubic yards)	
Burnable debris (cubic yards)	128,134
Soil debris (cubic yards)	15,254
Metals (cubic yards) - possible recycle	45,762
Landfilled debris (cubic yards)	115,931
Minimum cubic yards potential (+/- 30%)	305,082
Maximum cubic yards potential (+/- 30%)	566,580

Source - NC Department of Commerce Economic Development Information System

** HAZUS Information Data base - FEMA - Dunn and Bradstreet 1994. Adjusted to 2009 by 3% annually. Worst case scenario.

*** Debris management program mathematical formulas - FEMA- NCDEM- GCEM- 1999

The probability of future hurricane events is dependent on a number of conditions and can be fairly difficult to predict. Based on historical data, it is likely that the County will continue to face a threat from hurricanes going forward. The threat from hurricanes in Alexander County is most pronounced, not in frequency of occurrence like severe thunderstorms or drought, but in the amount of damage a hurricane could potentially inflict on the County.

Terrorist Activity, Including Biological, Weapons of Mass Destruction and Other

Terrorist threats are considered a "common hazard" and all areas the county and the Town of Taylorsville are vulnerable. Also see current mitigation measures



The Defense Against Weapons of Mass Destruction Act -1996 defines weapons of mass destruction as "any weapon or device that is intended, or has the capability, to cause death or serious bodily injury to a significant number of people through the release, dissemination, or impact of -- (A) toxic or poisonous chemicals or their precursors; (B) a disease organism; or (C) radiation or radioactivity." President Clinton's Executive Order 12938 -- entitled "Proliferation of Weapons of Mass Destruction" -- of November 14, 1994 also defines weapons of mass destruction to be "nuclear, biological, and chemical weapons." (NBC)

The U.S. program of biological warfare started in 1942. Biological and chemical warfare and the use of chemical and biological weapons are now expressly forbidden by United Nations treaty. Recent events in our country have made us re-examine the realistic threat to all communities.

The bombing of the Murrah Federal Building in Oklahoma City in 1995 was an act of domestic terrorism. The attacks on the World Trade Center in 2001 were acts of international terrorism. Attacks can take many forms. They are all designed to literally terrorize citizens.

An examination of approximately 50 percent of critical facilities for weaknesses and potential attack was conducted in May, 2003, by an experienced, retired law enforcement officer. While this was an informal examination it revealed that many critical facilities are vulnerable to direct attack. No recommendations are included in the development of this portion of the mitigation plan and an in-depth analysis would have to be performed. The survey did reveal the potential for vulnerability. It should be emphasized that no structure is 100 percent secure and that all citizens and all areas are subject to the effects of terrorism even if the event does not occur in Alexander County.

While Alexander County has not been affected, to date by direct attacks, there have been events linked to domestic and international terrorism. Numerous local citizens were traumatized by the events at the World Trade Center, the Pentagon and in Pennsylvania on September 11, 2001. The incident of anthrax being sent through the mail in other parts of the country had citizens in Alexander County very concerned and suspicious. Many citizens would not open their mail, and dozens of cases of suspicious white powder were reported to local emergency responders. No positive results for anthrax contamination have been found in Alexander County.

Potential Damage from Terrorist Activity

Structural Damage	\$138,590,026
Non - structural (i.e. power distribution systems, etc.)	\$11,400,931
Contents	\$5,763,804
Lost inventory	\$4,978,406
Relocation losses (cost of relocating to temporary facilities)	\$88,121,594
Capital losses	unknown
Wages lost (60 day period)	\$5,046,812.00
Retail income losses	unknown
Total Potential Losses	\$253,901,572

* Source NCDC EDIS - HAZUS - Alexander County Tax Department. Losses based on 100% property valuation and calculated at 1% total loss. Figures are extrapolated from HAZUS from total number of structures. Figures adjusted for 2009 by 3% annually.

One of the most important economic vulnerabilities within the county is the poultry industry. The poultry industry accounts for over 70 million dollars in revenue to the county every year. The introduction of any type of foreign animal disease, intentionally or unintentionally would have catastrophic results. At this time the county and the state are conducting mitigation for this hazard in the form of working with farms and livestock producers to educate them about the signs and symptoms of such diseases. The education focuses around containing the incident and minimizing any impact to the livestock, farmers and communities. The idea that terrorists could seek to introduce foreign animal diseases is a real threat to Alexander County and could have disastrous impacts for the economy of the county.

Each of these threats continues to be real for Alexander County. Each one poses unique challenges for the community and, while the likelihood of an event is not high, there is certainly the possibility in the future.

Severe Thunderstorms

Severe thunderstorms are considered a "common hazard", and all areas of the county and the Town of Taylorsville are vulnerable. Severe thunderstorms are equally likely to affect in any area of the county, but the most significant financial losses are likely to be in areas of the county that are most densely built up and most heavily occupied. Also see Current Hazard Mitigation.



Alexander County has experienced an average of 27 severe thunderstorms per year. Many hazardous weather events are associated with thunderstorms. Fortunately, the area affected by any one of them is fairly small and a majority of the time the damage is fairly

light. Lightning is responsible for many fires each year, and is notorious for causing deaths when people are struck. Under the right conditions, rainfall from thunderstorms causes flash flooding. Hail up to the size of softballs damages cars and windows, and kills wildlife caught out in the open. Strong (up to more than 120 mph) straight-line winds associated with thunderstorms knock down trees and power lines. Straight-line winds are often thought to be tornados because of their often violent destruction. Tornados (with winds up to about 300 mph) can destroy all but most well-built man-made structures. Therefore the number of thunderstorms makes this hazard one of the most potentially devastating.

To a limited degree, potential thunderstorm development is predictable, as is the possible track of storms likely to produce severe thunderstorms, or supercell thunderstorms. Generally these storms develop southwest of Alexander County and travel northeast. Thunderstorm watches and warnings are issued by the National Weather Service in Greenville/Spartanburg, SC. While supercell storms are very rare, they are possible. It is also possible that a supercell or other severe thunderstorm can develop and strike any facility, business or residential area. The entire county, including the municipalities are vulnerable, as is the entire population. Reasonable expectation, however, would be for storms of considerably less intensity, resulting in a considerable reduction in the calculations below. This assessment assumes multiple severe thunderstorms producing at least one supercell producing straight-line winds of maximum magnitude of 120 miles per hour. It should be noted that these damages are similar to those of an F2 tornado.

Table TS1

**** Estimated / Potential Economic Impact from a catastrophic wind event**

Structural Damage	\$23,784,875
Non - structural (i.e. power distribution systems, etc.)	\$75,781,987
Contents	\$31,529,907
Lost inventory	\$1,659,469
Relocation losses (cost of relocating population)	\$24,338,454
Capital losses	\$11,062,703
Wages lost	\$13,275,750
Retail income losses	\$9,403,234
Total Potential Losses	\$190,836,379

The potential for debris generation is provide below as information for planners, solid waste professionals and county executives as a planning tool for the need for possible landfill space. Debris management following a major wind event is a costly and time consuming portion of disaster recovery. Costs are associated with debris. Efforts to

reduce the amount of debris that would be stored in a landfill may become a mitigation measure in the future.

Table TS2

***** Estimated / Potential Debris generated from a severe thunderstorm which generates a F2 tornado.**

TOTAL CUBIC YARDS	174,332
Total Acres needed to bury	18
Storage acres needed	11
Processing acres needed	7
Woody Debris (cubic yards)	52,299
Construction and demolition debris (cubic yards)	122,033
Burnable debris (cubic yards)	51,254
Soil debris (cubic yards)	6,102
Metals (cubic yards) - possible recycle	18,305
Land filled debris (cubic yards)	46,372
Minimum cubic yards potential (+/- 30%)	122,033
Maximum cubic yards potential (+/- 30%)	226,632

****** Potential Death and injury totals in a severe thunderstorm**

Deaths	50
Serious Injury	100

*Source - NC Department of Commerce Economic Development Information System

** HAZUS Information Data base - FEMA - Dunn and Bradstreet 1994. Adjusted to 2009 by 3% annually. Worst case scenario.

*** Debris management program mathematical formulas - FEMA- NCDEM- GCEM- 1999

**** Based on historical information 1950 - 2009 - Tornado Project Online (www.tornadoproject.com)

The probability of future severe storm events is dependent on a number of conditions, but it is very likely that the County will see severe storms again. Based on historical data, it is likely that the County will continue to face a threat from severe storms going forward.

Tornados

Tornados are considered a "common hazard" and all areas of the county and the Town of Taylorsville are vulnerable. Tornadoes are equally likely to affect in any area of the

county, but the most significant financial losses are likely to be in areas of the county that are most densely built up and most heavily occupied. Also see Current Hazard Mitigation and the Alexander County tornado history map in Appendix Two.



Alexander County, like much of North Carolina, has had experience with tornados in recent history. The most recent outbreak of tornado activity was July 7, 2005. All tornados recorded or suspected in Alexander County have been of the F0, F1 or F2 classes. Research into tornados in Alexander County has shown that each "section" of the county (north, south, east and west) has experienced this violent type of storm. History has also shown the type of tornado experienced displays a narrow path or track with duration of less than one minute. Damage estimates have averaged less than \$350,000 per storm. There have been no deaths or serious injuries in the ten year period.

To a limited degree, the potential for tornado development is predictable, as are the possible tracks of storms likely to produce tornados. Generally these storms develop south west of Alexander County and travel north east. Tornado watches and warnings are issued by the National Weather Service in Greenville/Spartanburg, SC.

After discussion of methodology and scope, the Enhanced Fujita Scale was developed and as been used since 2007. This scale incorporates 28 damage indicators to determine the Degree of Damage (DOD). Instead of using the traditional F0-F12, the Enhanced Fujita Scales uses an EF0-EF5. Further information on both scales can be found at: <http://www.spc.noaa.gov/efscale>.

While EF5 tornados are rare, they are possible. It is also possible that a tornado can develop and strike any critical facility, business or residential area. The entire county, including the municipalities, is vulnerable, as is the entire population. Reasonable expectation, however, would be for tornados of considerably less intensity, resulting in a

considerable reduction in the calculations below. A key point to remember is the size of a tornado is not necessarily an indication of its intensity.

This vulnerability assessment assumes worst case (EF5) that travels the entire length or width of the county:

Table T1

**** Potential Economic Impact from an EF5 tornado, catastrophic wind event or earthquake**

Structural Damage	\$71,357,159
Non - structural (i.e. power distribution systems, etc.)	\$227,347,227
Contents	\$94,589,722
Lost inventory	\$4,978,406
Relocation losses (cost of relocating population)	\$73,016,627
Capital losses	\$33,189,376
Wages lost	\$39,827,251
Retail income losses	\$28,210,970
Total Potential Losses	\$571,556,527

The potential for debris generation is provide below as information for planners, solid waste professionals and county executives as a planning tool for the need for possible landfill space. Debris management following a major wind event is a costly and time consuming portion of disaster recovery. Costs are associated with debris. Efforts to reduce the amount of debris that would be stored in a landfill may become a mitigation measure in the future.

Table T2

***** Potential Debris generated from an EF5 tornado or catastrophic wind event**

TOTAL CUBIC YARDS	435,831
Total Acres needed to bury	45
Storage acres needed	27
Processing acres needed	18
Woody Debris (cubic yards)	130,749
Construction and demolition debris (cubic yards)	305,082

Burnable debris (cubic yards)	128,134
Soil debris (cubic yards)	15,254
Metals (cubic yards) - possible recycle	45,762
Landfilled debris (cubic yards)	115,931
Minimum cubic yards potential (+/- 30%)	305,082
Maximum cubic yards potential (+/- 30%)	566,580

Table T3

****** Potential Death and injury totals from an EF5 tornado or catastrophic wind event**

Deaths	50
Serious Injury	100

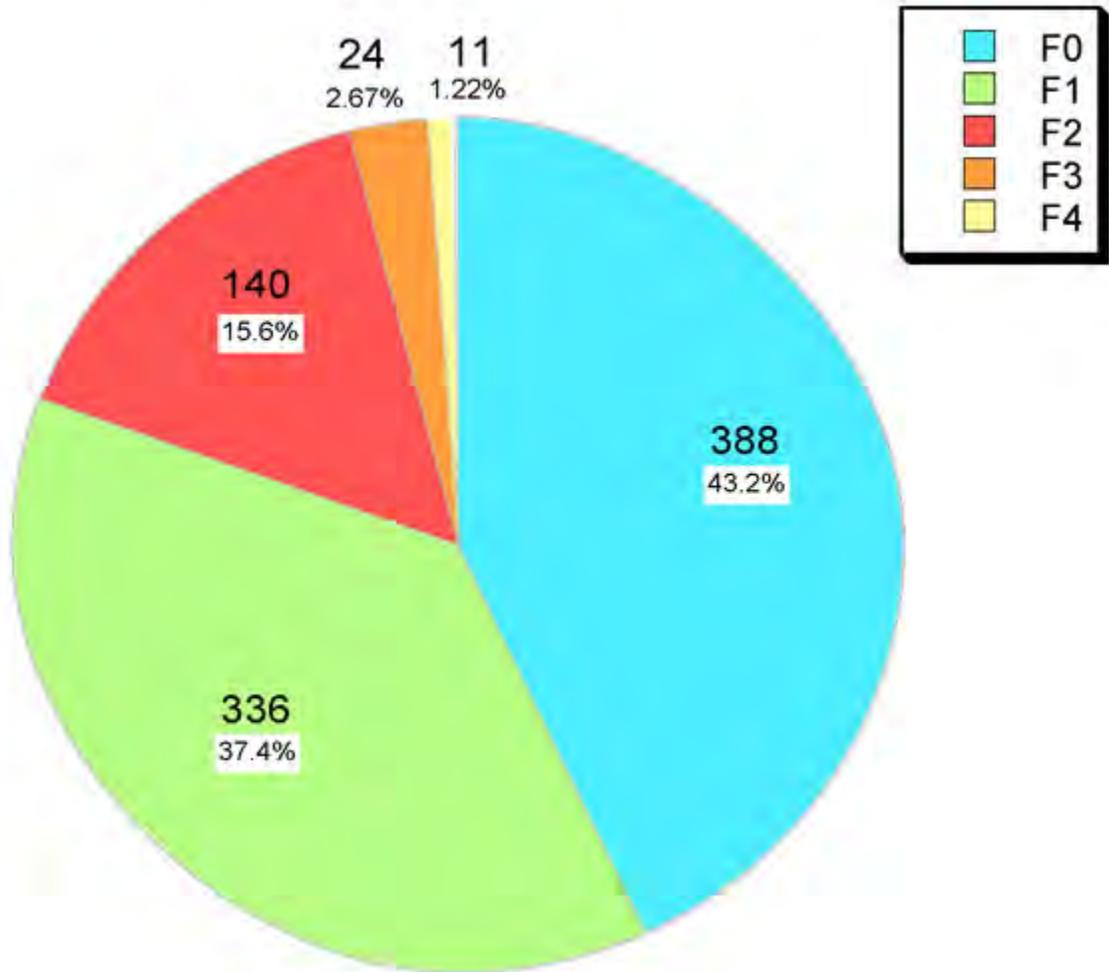
** HAZUS Information Data base - FEMA - Dunn and Bradstreet 1994. Adjusted to 2009 by 3% annually. Worst case scenario.

*** Debris management program mathematical formulas - FEMA- NCDDEM- GCEM- 1999

**** Based on historical information 1950 - 2008 - Tornado Project Online (www.tornadoproject.com)

Chart T1

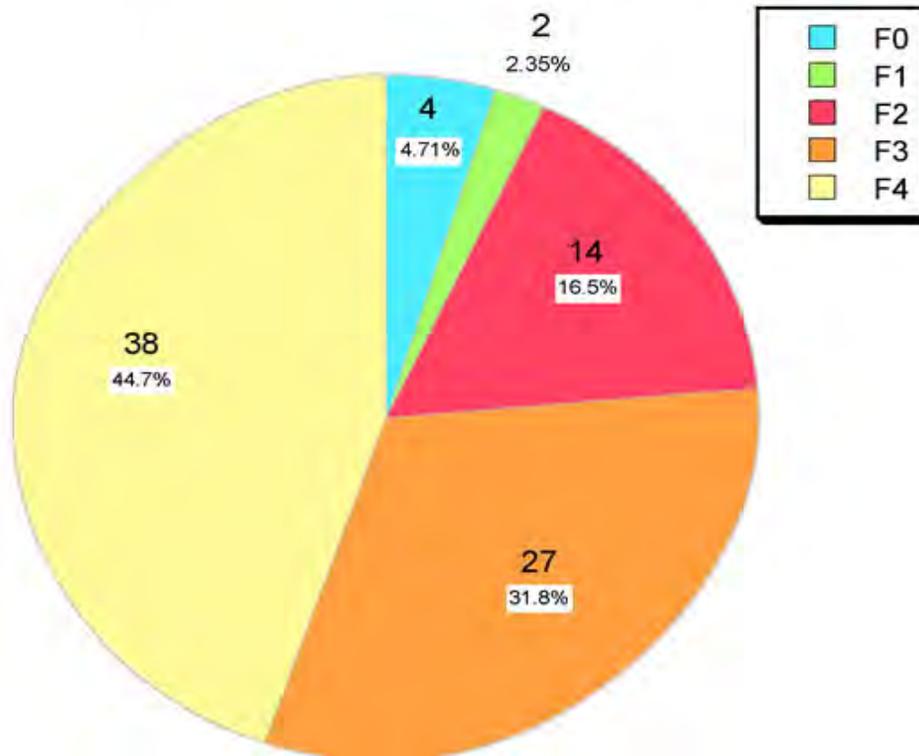
Tornadoes per F - Scale in North Carolina



Number and Percent of Tornadoes

Chart T2

Fatalities per Tornado Intensity in North Carolina



Percent and Number of Fatalities

The above pie charts show that, while violent tornados are few in number, they cause a very high percentage of tornado-related deaths. The Tornado Project has analyzed data prior to 1950, and found that the percentage of deaths from violent tornados was even greater in the past. This is because the death tolls prior to the introduction of the forecasting/awareness programs were enormous: 695 dead (Missouri-Illinois-Indiana, March 18, 1925); 317 dead (Natchez, Mississippi, May 7, 1840); 255 dead (St. Louis, Missouri and East St. Louis, Illinois, May 27, 1896); 216 dead (Tupelo, Mississippi, April 5, 1936); 203 dead (Gainesville, GA, April 6, 1936). In more recent times, no single tornado has killed more than 50 people since 1971.

The probability of future tornado events is dependent on a number of conditions and can be fairly difficult to predict. Based on historical data, it is likely that the County will continue to face a threat from tornadoes going forward. The threat from tornadoes in Alexander County is most pronounced, not in the frequency of occurrence like severe thunderstorms or drought, but in the amount of damage a tornado could potentially inflict on the County.

Winter Storms

Winter storms are considered a "common hazard" and all areas of the county and the Town of Taylorsville are vulnerable. Winter storms are equally likely to affect in any area of the county, but the most significant financial losses are likely to be in areas of the county that are most densely built up and most heavily occupied, as well as any agricultural operations depending on the season. Also see Current Hazard Mitigation.



Alexander County and the Town of Taylorsville have experienced severe winter storms. The most memorable storms in recent history have been the ice storms of 1994, 1996, 2002, and 2005. The storm in 1996 left several thousand citizens without electric power for up to nine days. Shelters were opened and some roads were impassable for up to four days. Considerable disruption to business, industry, schools and government services occurred. The county and the municipalities have experienced an average of one major winter storm per year during the evaluated period from 1992 - 2008. This is consistent with historical data from FEMA and the National Weather Service.

Winter storms in Alexander County have inherent problems and often considerable costs associated with snow and ice removal or clearing, shelters that may have to be opened, numerous traffic accidents, power outages, and citizens who will lack proper food supplies or adequate heat.

Citizens also inappropriately use a variety of heating devices that can cause fires. Some even cause toxic fumes to build up in a residence that can lead to death. Death can occur from a fire itself, toxic gases or when no heat is present, or hypothermia.

Table WS1

**** Estimated / Potential Economic Impact from a catastrophic ice storm.**

Structural Damage	\$11,117,174
Non - structural (i.e. power distribution)	\$23,844,413

systems, etc.)	
Contents	\$1,266,770
Lost inventory	\$1,659,469
Relocation losses (cost of relocating population)	\$2,803,362
Capital losses	\$11,062,703
Wages lost	\$13,275,750
Snow and ice removal	\$5,700,465
Total Potential Losses	\$70,730,107

***** General information regarding deaths from winter storms:** Winter storms can kill without breaking climatological records. Their danger is persistent, every year. Since 1936 snowstorms have caused, directly and indirectly, about one hundred deaths a year, and a year of 200 deaths is not unusual. Of such deaths, usually just over a third are attributed to automobile and other accidents; just less than a third to overexertion, exhaustion, and consequent fatal heart attack; while only about 11 percent result from exposure and fatal freezing. The remaining number, about 20 percent, are deaths due to home fires, carbon monoxide poisoning in stalled cars, electrocution from downed wires, and building collapse. Large numbers of snow-related deaths - 345 and 354 - occurred in 1958 and 1960 respectively. About half of these deaths occurred in New England, New York, and Pennsylvania.

*Source - NC Department of Commerce Economic Development Information System

** Source - Alexander County FEMA DSRs 94/96 adjusted to 2009 values by 3% annually.

*** Source - NOAA / sunysuffolk.edu

The probability of future winter storm activity is dependent on a number of conditions, but based on historical data, it is likely that the County will continue to face a threat from winter storms going forward. The threat from winter storms in Alexander County is most pronounced, in both frequency of occurrence over the past few years and also in the amount of damage a hurricane could potentially inflict on the County.

Current Mitigation Measures by Hazard

Alexander County and the Town of Taylorsville are fortunate to have many hazard mitigation efforts in place. Some exist as legal measures through local ordinance, state law or federal regulation. Those efforts are outlined below by hazard. Efforts overlap into multiple hazards to make Alexander County and the Town of Taylorsville more hazard resistant communities.

Alexander County and the Town of Taylorsville continue to incorporate numerous mitigation measures through the processes of land use and development.

Drought: General information regarding drought and the definition is available in the Hazard Identification section. Also see the vulnerability assessment for drought.

A.	Direct contact with the National Weather Service regarding drought predictions.
B.	Direct contact and consultation with NC Cooperative Extension Service regarding agriculture drought predictions.
C.	Monitor reservoirs and reservoir levels during dry periods.
D.	Private water companies monitor wells and storage tanks.
E.	Voluntary water conservation practices are put in place as necessary.
F.	Mandatory water conservation practices are put in place as necessary.
G.	Auxiliary water sources are identified.
H.	Maintains contact with the USGS regarding real time drought conditions and drought forecasts.
I.	Maintains contact with the NC Drought Monitoring Council regarding potential long term conditions.

Earthquake: General information regarding earthquake and the definition is available in the Hazard Identification section. Also see the vulnerability assessment for earthquake hazard.

A.	Increase awareness of earthquake potential by local government officials.
B.	Increase awareness of earthquake potential by the public.
C.	Increase awareness of the availability of information from the USGS.
D.	Encourage citizens to check for hazards in their home in accordance with FEMA publications.
E.	Encourage homeowners to review insurance policies as part of an overall family disaster plan.

F.	Shelter agreements are in place via Red Cross to provide shelter operations.
G.	Encourage citizens, business owners, and others to develop emergency preparedness plans, emergency response plans and emergency recovery plans.

Fixed Nuclear Facility: General information regarding a fixed nuclear facility and the definition is available in the Hazard Identification section.

A.	Direct communications with NCEM during an elevated Emergency Action Level (EAL).
B.	Nuclear Regulatory Commission Standards of operation for nuclear power plants.
C.	Established Emergency Action Levels.
D.	Established and published evacuation routes that will not effect Alexander County or the Town of Taylorsville
E.	Training of offsite EOC, Public information and other government personnel annually.
F.	Training of offsite response personnel annually.
G.	Bi-annual, federally graded exercise. Five year Ingestion Pathway Zone exercise that Alexander County participates in.
H.	Public is informed by emergency management and the utility through brochures, calendars and other public information materials. Education materials are available from the utility.
I.	Emergency Management officials are kept informed through meetings with plant and utility personnel.
J.	Public telephone access to the utility to ask questions and receive answers.
K.	Shelter agreements are in place via Red Cross to provide shelter operations.
L.	Detection and monitoring equipment that is tested and calibrated is available if needed.

Floods: General information regarding floods and the definition is available in the Hazard Identification section. Also see the vulnerability assessment for floods.

A.	Alexander County (370398) is a participant in the National Flood Insurance Program, making citizens eligible for flood insurance.
B.	FIRMs are available in the various planning offices and online.
C.	Alexander County Code of Flood Plain Management (Chapter 159)

D.	SBCCI Standard for Flood Plain Management (SSTD 4-89)
E.	Greater awareness of public and private sector regarding flooding potential.
F.	Digital floodplain maps are now available to emergency management and other emergency planners and responders.
G.	Potential road closure listings from NC DOT are available.
H.	Access to and considerable cooperation from local broadcast media to warn the public of the potential for flooding through Emergency Alert System (EAS).
I.	Watches and warnings issued by the National Weather Service.
J.	Public education in flood potential and the availability of flood insurance.
K.	Public education programs regarding flooding and emergency management are conducted as often as possible or requested.
L.	Weather alert radios are in each school and day care center to provide early warning. Radios are also in use in many government agencies.
M.	Discouragement of the public and developers from developing property in flood zones.
N.	Shelter agreements are in place via Red Cross to provide shelter operations.
O.	All property locations are now known so work can begin on further mitigation efforts within the floodplain.

Forest Fires: General information regarding forest fires and the definition is available in the Hazard Identification section. Also see the vulnerability assessment for forest fires.

A.	Public awareness of the causes of forest fires have helped to reduce the overall number of occurrences.
B.	Direct contact with the District Forestry office that issues "fire potential" reports daily by radio.
C.	Burning bans are imposed and rigidly enforced as needed. Citations have been issued in the past.
D.	Education by fire marshals and fire departments, as well as the Department of Environment and Natural Resources has greatly reduced outdoor burning of trash, reducing the number of forest fires.
E.	Aggressive training and response by local fire departments and state forestry have diminished acreage consumed by forest fires.
F.	Most fire departments are equipped with specialized equipment to help fight forest fires.
G.	Fire safety education is conducted by the Fire Marshals office and is coordinated with each participating fire department.

I.	NC Forestry responds to all reports of forest (or brush) fires and can therefore coordinate the response of Forestry resources directly, as needed.
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Hazardous Materials: General information regarding hazardous materials and the definition is available in the Hazard Identification section. Also see vulnerability assessment for hazardous materials.

A.	Each fire department is trained to at least the "Awareness Level" under OSHA 1910.120 standards. Some departments meet standards for "Operations level". Alexander County has access to at least four persons trained at the technician level and over a dozen qualified radiological monitoring trainers within a one hour response time.
B.	Community "Right to Know" is in place and has educated many members of the public regarding chemical hazards in the area.
C.	SARA Title III is in place in Alexander County and has been since 1988. Tier II reports are required annually from each company that keeps, stocks or maintains certain levels of hazardous chemicals. This information is shared with local fire departments, and upon request, with the public.
D.	Extremely Hazardous Substances (EHS) facilities are required, by law; to have pre-planning. These plans are reviewed by Emergency Management and or the LEPC annually. There is only one EHS facility in Alexander County.
E.	At least one NCDDEM Regional Response Team (RRT) is within a one hour response from Alexander County.
F.	Alexander County has a written statewide mutual aid agreement.
G.	Alexander County keeps a current list of spill clean up companies available to business, industry, transportation companies and the public.
H.	Dispatch and response procedures are in place for all reports of chemical accidents.
I.	Emergency Management responds to hazardous materials calls upon request and is notified of all hazardous materials incidents in the county.

Hurricanes: General information regarding hurricanes and the definition is available in the Hazard Identification section. Also see the vulnerability assessment for hurricanes.

A.	Alexander County Emergency Management participates in hurricane preparedness planning as a potential reception area for coastal evacuees as well as practical exercises and it assists in actual hurricane events.
B.	Hurricane awareness information is presented to the public as often as possible or

	practical.
C.	Hurricanes are tracked in the EOC as they develop and government officials, and the media are kept informed of the preparations of response forces.
D.	Response forces are experienced and well trained.
E.	Emergency plans are in place and exercised.
F.	Hurricane watches and warnings are issued by the National Weather Service.
G.	Watches and warnings are received via weather alert radios in all schools and day care centers as well as most government offices.
H.	Watch and warning procedures to further alert agencies are carried out by emergency communications.
I.	Shelter agreements are in place via Red Cross to provide shelter operations.

Landfill Fires: General information regarding landfill fires and the definition is available in the Hazard Identification section.

A.	Procedures have been developed by the county Solid Waste Department to effectively extinguish the majority of fires.
B.	Practical experience and training have occurred with many fire departments.
C.	Response procedures have been enhanced.
D.	Necessary equipment and manpower (through contractors) have been located as resources that can respond.
E.	Regulations at facilities prohibit the deposit of flammable liquids, chemicals or other such substances.
F.	The solid waste landfill is not located in Alexander County.

Large Structural Fires: General information regarding large structural fires and the definition is available in the Hazard Identification section.

A.	Fire inspections are conducted as often as possible at businesses and industry by fire marshals on a schedule.
B.	Building evacuation routes must be posted.
C.	Fire extinguishers clearly marked, available, tested and recharged on a regular basis.
D.	Fire extinguisher use classes are taught as often as possible.
E.	NFPA standards and codes are followed.

F.	Fire code is rigidly enforced with citations issued for violations.
G.	Fire departments regularly conduct pre-plans for facilities, businesses and industry in their respective jurisdictions.
H.	Additional fire safety and fire education programs are conducted as often as possible.

Mass Fatality: General information regarding mass fatality and the definition is available in the Hazard Identification section.

A.	Mutual aid agreements have been entered into that may assist in supplying additional resources in a mass fatality incident.
B.	Emergency Medical Service has developed a Mass Casualty plan.
C.	Plans are exercised on a regular basis.
D.	Training and exercises have been and continue to be conducted on mass fatality events including transportation, water, fixed facility, aircraft and schools.
E.	Inspections are conducted on new construction to insure compliance with building codes.
F.	Buildings are inspected regularly by fire marshals to insure compliance with fire codes and insure that fire exits are not locked or otherwise obstructed.

Other or Unknowns (biologics, disease, etc): General information regarding other or unknown hazards and the definition is available in the Hazard Identification section, as well as the vulnerability assessment for Terrorist activity.

A.	Alexander County participates in the Health Alert Network.
B.	Training has been conducted with area responders and agencies regarding biological hazards.
C.	The Health Department, in conjunction with Emergency Management, area medical providers and others, is developing a bio-terrorism plan.
D.	The Health Department is in constant contact with state and federal agencies regarding biological and disease threats.
E.	The Cooperative Extension Service has conducted training for government agencies and the public regarding foot and mouth disease and the procedures that have been developed to prevent an outbreak and procedures have been developed if an outbreak is detected.
F.	State laboratories have increased efforts to more quickly identify such threats or hazards.

Power Failure: General information regarding major power failures and the definition is available in the Hazard Identification section.

A.	Formal emergency plans are in place at both the local level and state level to restore power as quickly as possible. One formal plan in use is that of Energy United and the NC Electric Membership Corporation.
B.	Electric power system personnel are available 24/7 in emergency situations.
C.	Response unit (fleet) maintenance programs.
D.	Public education in the form of public program presentations, publications, brochures and flyers.
E.	24 hour emergency dispatch of personnel to locate and resolve distribution problems.
F.	24 hour telephone numbers available to the public.
G.	Pole maintenance programs, whereby distribution poles are inspected and if necessary replaced.
H.	Work plans in place to build new or upgrade sub stations.
I.	Right of Way maintenance programs, whereby right of ways are cleared of trees or other debris that may cause an outage.
J.	Media centers or information distributed to the public to keep the public informed regarding outages and the progress on repairs.
K.	Technical representatives are available upon request for the EOC.
L.	Contracted emergency assistance to provide supplies, equipment and manpower as part of an emergency plan.
M.	Installation of underground systems where feasible, cost effective or otherwise appropriate.

Terrorist Activity: General information regarding terrorist activity and the definition is available in the Hazard Identification section. Also see the vulnerability assessment for terrorist threats.

A.	Increased levels of security or additional security measures have been put into place at many government facilities.
B.	Training has been conducted with area responders and agencies regarding terrorist activity and potential biological hazards or other hazards, such as bombings.
C.	The Health Department, in conjunction with Emergency Management, area medical providers and others, is developing a bio-terrorism plan.
D.	The Health Department is in constant contact with state and federal agencies regarding biological and disease threats.

E.	The Cooperative Extension Service has conducted training for government agencies and the public regarding foot and mouth disease and the procedures that have been developed to prevent and outbreak and procedures that have been developed if an outbreak is detected.
F.	State laboratories have increased efforts to more quickly identify such threats or hazards.
G.	Law enforcement has received additional training and awareness regarding terrorist activity with increased coordination between local, state and federal law enforcement to exchange information.
H.	Response agencies have received additional training regarding terrorist potential.
J.	The public has been kept informed.
K.	Local response procedures have been developed for suspicious packages and or mail.
L.	Additional procedures and efforts have been made regarding mass casualty incidents that may result from a terrorist act.

Thunderstorms: General information regarding thunderstorms and the definition is available in the Hazard Identification section. Also see the vulnerability assessment for thunderstorms.

A.	Close contact is maintained by telephone with the National Weather Service (NWS)
B.	Alexander County Communications has the capability to monitor weather systems, as well as the potential intensity of the storms, via NWS and other electronic means.
C.	NWS issues watches and warnings to the public and government agencies.
D.	Public education continues to take place regarding watches and warnings.
E.	Weather alert radios have been placed in each school and day center as well as many government agencies.
F.	Access to and considerable cooperation from local broadcast media to warn the public of the potential for severe thunderstorms.
G.	When necessary the Emergency Alert System (EAS) can be activated at the local level by appropriate officials.
H.	Power and or utility restoration plans and mitigation efforts are in place with the various electric utilities.
I.	Debris clearance, as required, can be requested from various agencies, including NC DOT.

Tornados: General information regarding tornados and the definition is available in the Hazard Identification section. Also see the vulnerability assessment for tornados.

A.	Close contact is maintained by telephone with the National Weather Service (NWS)
B.	Alexander County Communications has the capability to monitor storms approaching the county, as well as the potential intensity of the storms.
C.	NWS issues watches and warnings to the public and government agencies.
D.	Public education continues to take place regarding watches and warnings.
E.	Weather alert radios have been placed in each school and day center as well as many government agencies.
F.	Access to and considerable cooperation from local broadcast media to warn the public of the potential for severe storms.
G.	When necessary the Emergency Alert System (EAS) can be activated at the local level by appropriate officials.
H.	Power and or utility restoration plans and mitigation efforts are in place with the various electric utilities.
I.	Debris clearance, as required, can be requested from various agencies, including NC DOT.
J.	Numerous "courtesy" inspections and recommendations regarding tornado shelters have been conducted at area businesses by Emergency Management.
K.	Backup warning systems exist, including call down lists. As many notification calls as possible are made prior to the entry of the storm system into the county, as an additional warning method.
L.	If necessary or appropriate, fire department sirens can be sounded as an additional warning method to the public.
M.	Broadcasts are made via all emergency radio frequencies to all emergency services agencies regarding watches and warnings.
N.	Shelter agreements are in place via Red Cross to provide shelter operations.

Winter Storms: General information regarding winter storms and the definition is available in the Hazard Identification section. Also see the vulnerability assessment for winter storms.

A.	Close contact is maintained by telephone with the National Weather Service (NWS)
B.	Alexander County Communications has the capability to monitor storms approaching the county, as well as the potential intensity of the storms. Numerous

	other weather monitoring stations are available to the communications center and the emergency operations center.
C.	NWS issues watches and warnings to the public and government agencies.
D.	Public education continues to take place regarding watches and warnings.
E.	Weather alert radios have been placed in each school and day center as well as many government agencies.
F.	Access to and considerable cooperation from local broadcast media to warn the public of the potential for severe storms.
G.	When necessary the Emergency Alert System (EAS) can be activated at the local level by appropriate officials.
H.	Power and or utility restoration plans and mitigation efforts are in place with the various electric utilities.
I.	Debris clearance, as required, can be requested from various agencies, including NC DOT. Pre-determined routes for clearance are in place by NC DOT.
J.	Snow and ice removal methods are in place by the Town of Taylorsville and NC DOT.
K.	Backup warning systems exist, including call down lists. As many notification calls as possible are made prior to the entry of the storm system into the county, as an additional warning method.
L.	If necessary or appropriate, fire department sirens can be sounded as an additional warning method to the public.
M.	Broadcasts are made via all emergency radio frequencies to all emergency services agencies regarding watches and warnings.
N.	Shelter agreements are in place via Red Cross to provide shelter operations.

Section IV: Hazard and Vulnerability Analysis

Hazard and Vulnerability Analysis

Alexander County and the Town of Taylorsville conducted research into existing documents, history, land use, demographics, ordinances, state and federal law and accepted codes and practices. Alexander County also reviewed existing FIRMs from the Federal Emergency Management Agency and incorporated that review onto GIS maps from the Mapping Department of Alexander County. New, digital FIRMs are available from the State and can be accessed at <http://www.ncsparta.net/fmis/MainMap.aspx>.

Analysis and assessment has been conducted with input from the public, local, state and federal agencies, planning agencies and others. The analysis and assessments were then presented to the Hazard Mitigation Task Force / LEPC for discussion and inclusion or exclusion in this plan.

Extensive analysis and assessment was then conducted with input from the public, local, state and federal agencies, planning agencies and others. The analysis and assessments were then presented to the Hazard Mitigation Task Force / LEPC for discussion and inclusion or exclusion.

This study and input resulted in the following information and documentation. The list of critical facilities for Alexander County and the Town of Taylorsville can be found at Appendix One. It is important to note that, while there are not any critical facilities in the floodplain, the fact that most hazards have the potential to affect all areas of the county, make critical facilities subject to the same risks as other locations in the county. Specific vulnerabilities of critical facilities can be found in Section III of this plan.

Section V: Hazard and Vulnerability Mitigation

Concept

Hazard and vulnerability mitigation can be an all encompassing program that can be complex or it can be resolved to do only those things necessary, practical or cost effective to accomplish mitigation goals and objectives. Reduction or elimination of a threat or the potential damages and loss of life from a catastrophic incident is the main goal of hazard mitigation. Hazard and vulnerability mitigation is not just a government function. It involves government, public, private and non-profit sectors working together to reduce risks for the benefit of the community.

Mitigation can be in the form of legal measures, new building codes or construction techniques or simply restricting parking near critical facilities. Details of recommendations and objectives are found in later documents.

Alexander County has a total population estimated at 37,463, with a per capita income of \$21,868. The economic impact potential alone from a single county-wide disaster would likely devastate the local economy. The ability of inadequately insured residents to purchase replacement housing would be diminished considerably due to the low per capita income.

Alexander County and the Town of Taylorsville have considered numerous issues, including those mentioned above. Considerable research has been conducted regarding previous history and the previous vulnerability to hazards. The frequency of major disasters or events is listed in the Hazard Rating chart. Initially, a ten year period from 1992 until 2002 was selected to research and examine the hazards included in this plan. For the 2009 plan update, data from 2002 to 2008 was considered in addition to the data from the previous research. While most trends continued, any deviations from trends are noted in this section. A complete community profile is found in the first section of the Alexander County Comprehensive Plan which can be accessed online at <http://www.alexandercountync.gov/pdf/AlexCompPlan-Final.pdf>. Also found within the second section of this document is information for the county and Town of Taylorsville about current and future land use within each jurisdiction. These two sections of the Comprehensive Plan can also be found at Appendix Seven of this document.

Planning

Each jurisdiction agreed that it was important to have a multi-jurisdictional plan and that it be coordinated. Interviews with local county and municipal officials have been used to identify existing capabilities. These interviews also allowed in-depth questioning when a particular question or response prompts additional issues. Where interviews are not possible, survey questionnaires can be used to obtain data regarding each department's specific programs and authorities. This data provides a valid starting point for gathering information for the vulnerability assessment. In addition, the existing meetings of the

LEPC/Hazard Mitigation Task Force serves as an important venue for information sharing. These meetings are also used to incorporate the requirements of the hazard mitigation plan into other planning mechanisms. Alexander County Emergency Management is responsible for providing information to its county and local partners to ensure that the principles and the ideas in the hazard mitigation plan are followed and furthered by all involved. In previous years, mitigation goals and strategies were taken into consideration when the County developed its Comprehensive Plan, economic development policy changes, County ordinance updates and smaller documents and pamphlets developed by respective departments. This was done through discussions with County departments and having such documents reviewed by the Emergency Management Department as they were developed. As other members of the group update their respective documents, it is expected that their planning will be consistent with the hazard mitigation plan, and the Alexander County Emergency Management can assist them in considering mitigation in their planning processes. If at any time, any other agency or organization wishes to have any reports, studies or plans incorporated into this mitigation plan, that organization should bring the request to the Mitigation Task Force/LEPC for consideration and incorporation into the plan. Additionally, many documents that have come from other County departments have proven to be seminal documents for this plan update including the revised County Comprehensive Plan and the Alexander County Highway Commodity Flow Study.

Following the recommendations of the Division of Emergency Management within the North Carolina Department of Crime Control and Public Safety and FEMA, Alexander County has taken the necessary action and determined its capability to develop a comprehensive hazard mitigation plan. The Capability Assessment for Alexander County included the following categories:

- Legal—An inventory of the powers available to local governments enumerated in the North Carolina General Statutes to identify which can be used to craft hazard mitigation measures at the local level, and also assess legislation that may impose limits on certain mitigation efforts.
- Institutional—A description of the type of government, including an inventory of key decision-making positions (both long range and day-to-day).
- Political Capability—Discussion as to how mitigation can be inserted into everyday decision-making, and aid in de-politicizing the issues.
- Fiscal—Inventory of sources of funding available to communities to implement local hazard mitigation plans, including both government and private programs.

Similar techniques are used in data collection. The information gathered will assist in making suggestions for suitable mitigation opportunities.

In addition to the items listed above, Alexander County also seeks to identify local policies or practices which may weaken existing mitigation efforts or even exacerbate risk.

Local mitigation planning activities include:

- The identification and analysis of hazards that threaten the community;
- An assessment of vulnerable properties and populations;
- An assessment of local capabilities to implement various mitigation programs and policies; and
- The identification and prioritization of feasible mitigation opportunities.

Planning Process

The initial planning process included meetings in 2002 with a multi-jurisdictional Hazard Mitigation Task Force / LEPC where discussions regarding the hazards (based on the priority as outlined in the hazard matrix), were identified and rated. Current policy, county ordinance, building code, general statute or federal code was examined for possible mitigation efforts for each hazard. Each hazard mitigation effort was also assessed for the capability of the community to respond effectively as well as its potential for effective recovery. An assessment was then made for mitigation potential from either legal or voluntary means or a combination of those means. Interim conclusions were then drawn and recorded. From the interim conclusions, goals were established which included recommendations for policy, code or ordinance changes, or outreach education programs to achieve those goals. All decisions of the group were made on the basis of discussion and consensus, and there were few disagreements on the planning process. Formal recommendations were then made to appropriate officials for action.

For the 2009 update process, input was sought from the LEPC, the plans were updated by the Emergency Management personnel and reviewed by the Hazard Mitigation Task Force/LEPC for any additions or corrections. The 2002 plan was distributed and comments were solicited from this group on December 18, 2008. Several weeks were given for comment and comments were received by the Alexander County Emergency Services Director. Due to a largely functional planning process, lack of significant events since the last plan iteration, and the lack of funding available to accomplish the mitigation actions, the LEPC decided that updates should be largely updating the dates and measures taken since the last plan. These comments were incorporated into the final draft of the plan, which was re-distributed and opportunity for comment was given at the Hazard Mitigation Task Force/LEPC meeting on February 6, 2009. Minutes from all of these meetings, including confirmation of participation from the Alexander County Emergency Services Director, can be found in Appendix Seven to this plan. Time for public comment was also given as the plan has been available online and for viewing in the Emergency Management office since 2002. In addition, three public notices were given including October 29, 2008, Nov 26, 2008 and Jan 28, 2009. The public notices can be found at Appendix Nine of this plan. The plan will continue to be available online at the county's website and will be available for continued public comment for the foreseeable future. The plan will be formally adopted after approval by the State and FEMA, most likely during the August meetings of the Alexander County Commission and the Taylorsville Town Council. Each jurisdiction will adopt the plan upon

notification of approval and each jurisdiction will provide official notice of adoption to NCEM for transmittal to FEMA.

Implementation of the goals, policies, procedures, or ordinances of each hazard to be mitigated has been, and will continue to be, assigned to the appropriate department or agency for conclusion. The effectiveness has been, and will continue to be, monitored, and reports of the effectiveness will continue to be forwarded to the Chair of the Hazard Mitigation Task Force, as outlined below. Revisions, updates or modifications have been as will be, if necessary, be made by Alexander County Emergency Services Director as outlined below. Alexander County and the Town of Taylorsville, following the intent of Senate Bill 300, and the Disaster Mitigation Act of 2000, have assessed their vulnerability to hazards.

Public Involvement / Participants

Prior to beginning initial work on the plan, a meeting was held to describe the project approach, goals and objectives of the project, technical services available to the county and municipalities, specific projects and expectations of results. This meeting was held in Taylorsville. The intent of this initial meeting was to enable all participating communities and County departments a chance to comment on the scope of the plan. Representatives of neighboring communities, state agencies, federal agencies, the public and other interested parties were invited to attend and have input into the Hazard Mitigation Plan. Alexander County intentionally placed and maintained public members on the Hazard Mitigation Task Force / LEPC so that public input would always be received. Alexander County has gone to great lengths to insure the public has been informed of the planning process. A copy of the certification is contained in the Hazard Mitigation Plan.

For the 2009 update, the plan was discussed at the December 18, 2008 meeting of the Hazard Mitigation Task Force/LEPC. As in the original planning process, representatives of neighboring communities, state agencies, federal agencies, the public and other interested parties were invited to attend and have input into the Hazard Mitigation Plan. The plan was distributed and the group provided feedback to the Alexander County Emergency Services Director. The Alexander County Emergency Services Director also solicited and received input from the Town Manager of Taylorsville and the Alexander County Manager. The plan was available online for members of the public to view, as well as in the Office of Emergency Management for increased accessibility. To increase the visibility of the process, three public notices were posted, including on October 29, 2008, Nov 26, 2008 and Jan 28, 2009. The public notices can be found at Appendix Nine of this plan. During the meetings advertised in the public notices, not one person gave comments about the plan. There has been very little feedback from the public on either the original plan or the plan update. This is a source of concern for the county and Town of Taylorsville and they will use the Hazard Mitigation Task Force/LEPC to help determine how to increase general public participation.

Additional meetings have been held as necessary and often on an individual department, agency, or personal basis. Input has been sought from state and federal mitigation planners as necessary or appropriate. A final draft will be prepared and submitted to the Board of Commissioners and the Town Council for approval once approved by the State and FEMA. The approved mitigation plan will then be copied in both digital and paper formats and distributed to users, including the appropriate state and federal agencies. The plan will also continue to be available online and in hardcopy at Alexander County Emergency Management. Any and all comments and suggestions from the public or members of the Hazard Mitigation Task Force/LEPC will continue to be welcomed. Comments will be documented for inclusion into the plan during or before the next federally-mandated update.

Participants of the Hazard Mitigation Task Force / LEPC in Alexander County include:

- Alexander County Commission
- Alexander County Manager's Office
- Alexander County Emergency Services (EMS, Communications, Fire, Sheriff, Rescue)
- Alexander County Emergency Management
- Alexander County GIS/Mapping
- Alexander County Economic Development
- Public Utilities (public member)
- Alexander County Social Services
- Alexander County Health Department
- Alexander County Sheriff
- Catawba Valley Red Cross
- Frye Regional Medical Center - Alexander Campus (Public Member)
- Shur-Tape Technology (Public Member)
- Tax Assessors Office
- Alexander County School Garage
- Co-Op Extension (Poultry Industry Rep)
- Town of Taylorsville Manager's Office
- Taylorsville Chamber of Commerce (public member)
- Western Piedmont Council of Governments (Regional government council)
- NC Emergency Management (Area 11)
- NC DOT (District 12)
- Members of general public
- NC State Highway Patrol (Troop F)
- NC Department of Corrections
- Taylorsville Times
- WRTA Transportation

Whenever possible or practical, the public has been notified and invited to participate in the planning process. This has been conducted by advertising in a local newspaper the availability, at a public place or by internet, of the plan for inspection and comment by

members of the public. When revisions to the plan are required, requested or recommended and these revisions are beyond the scope of administrative correction, drafts of those items to be included in the plan will be offered for public inspection and comment. This will be accomplished in the same manner as previously stated in this paragraph. Public comments on the plan will be accepted in the time period up until the governing body convenes to consider the plan or plan revisions for adoption.

In general, it is anticipated that any opposition to the final plan will be low given the history of the county with numerous severe weather and chemical events. It has been demonstrated in disaster planning literature that citizens place mitigation in high priority as much as a year and a half after the most recent events. Given that Alexander County has faced numerous disasters in a period of 15 years, most county residents understand the risk they face and favor a proactive approach.

Coordination, Maintenance and Approval

Coordination shall be the responsibility of Alexander County Emergency Management. In this role, the Alexander County Emergency Services Director is responsible for organizing meetings and agendas, notification to the public, arranging technical assistance, gathering pertinent documents for distribution and compiling recommendations for the Task Force. The Alexander County Emergency Services Director serves as the Task Force Chair, unless it is determined that those duties need to be assumed by another member of the Task Force. The Alexander County Emergency Services Director will make the final presentation to the Board of Commissioners for adoption of the Hazard Mitigation Plan. The Town of Taylorsville Town manager will be responsible for making presentations to his or her council or board. Where a Town manager is not employed, the County Emergency Management Coordinator shall make the formal presentation to the municipal council or board. It is the intent of Alexander County and the Town of Taylorsville to maintain this Task Force in conjunction with the Alexander County Local Emergency Planning Committee (LEPC).

The plan will be monitored and evaluated annually and it shall be the responsibility of the Mitigation Task Force Chair to conduct this review. The Chair will conduct a review of the plan that will include looking at any potential updates to the plan and ensuring that all operations continue to be consistent with the plan. Administrative changes, wording corrections, hazard analysis or other such portions of the Mitigation Plan, do not require additional action by the County Board of Commissioners or Town Council. However, changes that may have a significant impact or expenditure of non-budgeted funds may require action by respective elected bodies. In such cases, it is the responsibility of the Mitigation Task Force Chair to render judgment whether the change or modification to the Mitigation Plan will require such action. Whenever possible, changes will be made electronically. A signed and dated approval sheet shall accompany each printed copy of the plan. Electronic versions of the plan will have only printed names and dates of the jurisdictions approving the plan. Resolutions of adoption will be kept on file with the Alexander County Clerk to the Board of Commissioners and the Town of Taylorsville

town clerk. At a minimum, the plan will be updated every five years by the Hazard Mitigation Task Force / LEPC, or as required in accordance with 44CFR201.6(c)(4)(i). Plan updates will be submitted to the NC Hazard Mitigation Officer and FEMA for approval.

The public will be kept informed of proposed changes, modifications, reviews and updates to the plan by advertising that such updates, modifications and reviews are being considered. This advertisement shall be in the form of newspaper articles, legal notices (as required), radio and via internet. The public will be invited to participate in keeping with the open meetings laws of North Carolina. Public comments, suggestions, recommendations and other input will be received by Alexander County Emergency Management or during public meetings as local ordinance requires.

Data Used and Legal Documents Included

A variety of documents, including legal measures, have been examined and included in the overall mitigation plan. Alexander County documents, including all ordinances and plans, can be found at <http://www.alexandercountync.gov>. Where appropriate, the source of information has been cited. Among those referenced are:

- Alexander County Code of Flood Damage Prevention
- Critical facility and building information
- Alexander County Subdivision Ordinance
- Alexander County Fire Prevention Ordinances
- Alexander County Zoning Ordinance
- Alexander County Watershed Protection Ordinance
- NFIP maps
- North Carolina Administrative Code (15A NCAC 02B.0243)
- North Carolina Administrative Code (15A NCAC 02B.0244) Catawba River Basin Rules - Mitigation
- SBCCI Standard for Flood Plain Management (SSTD 4-89)
- NCGS 162B Continuity of Local Government in an Emergency
- Federal Requirements for Local Hazard Mitigation Plans (44 CRF 201.6)
- NC Mitigation Plan Minimum Requirements - NCHMW - NCDEM
- Alexander County Comprehensive Plan
- Local Hazard Mitigation Planning Manual - NCDEM 1998
- Taylorsville Emergency Water Conservation and Restriction Plan

Effectiveness for Hazard Mitigation

The Alexander County policies and ordinances are rated in Table DU1 as to their effectiveness for hazard mitigation.

Table DU1: Effectiveness of Current Policies and Ordinances	
Policies and Programs	Effectiveness for Mitigation

	(low, medium, high)
Comprehensive Plan	High
Subdivision Ordinance	Medium
Flood Damage Prevention Ordinance	High
Zoning Ordinance	Medium
Watershed Ordinance	High
Fire Prevention and Protection Ordinance	High
NC Administrative Code (15A NCAC 02B.0243-0244)	Medium
Taylorsville Water Conservation Plan	Medium
Thoroughfare Plan	Low
The above determined for effectiveness in mitigation were based upon discussions with local planners and legal counsel.	

Data Developed

Data has been developed and updated from information provided by the county and municipal Planning Departments and other organizations, including FEMA and the North Carolina Division of Emergency Management. The jurisdictions jointly updated information regarding critical facilities. This information includes the address, the general function, back-up power availability, and approximate square footage of the main facility as well as approximate replacement cost, including contents. Alexander County feels that with this data it can be better prepared to mitigate potential hazards that may affect some or all of the operations of government. Additional data was developed regarding hazards and placed into a hazard matrix that can quickly be examined regarding the potential of the hazard and the efforts that need to be put forward to address each hazard level (high, medium or low). Supporting information regarding these specific threats was also obtained from internet sources, the National Weather Service, Cooperative Extension Service, Forestry Service, Geological Survey, FEMA, NCDDEM and others.

Vulnerability assessment and analysis was conducted and updated with the best possible information available, using a number of sources for information such as HAZUS, NWS, Tornado Project and ChemInfo as well as NCDDEM, NC Geological Survey and DOT information. Legal, historical, planning and other data was obtained from Alexander County and Town of Taylorsville Planning, as well as the North Carolina General Statutes (NCGS), North Carolina Administrative Code and from the codifying agency for Alexander County and the municipality. Developing this information in a digital format was challenging but with assistance from the various departments including Administration, GIS/Mapping and Planning, it was carried out. This development includes the ability to update the plan and to print copies of the plan or otherwise reproduce it as appropriate.

Additional data regarding recommendations for strengthening local law or local building practices have been developed as a part of this plan and upon approval of the Alexander

County Board of Commissioners and the Town of Taylorsville Will become an active part of this plan.

Alexander County and the Town of Taylorsville have examined their history and records. It was determined, based on this information that there are no known repetitive loss facilities or structures in the flood plain (100 and 500 year). There are no repetitive loss facilities or structures in other hazard areas identified in this plan.

Alexander County and the Town of Taylorsville developed or oversaw development of a number of other documents relative to county and town plans. These included development plans, growth plans and projections, demographics and more. Many of these documents are unique to the respective jurisdiction. These documents, either by reference or in their entirety have been included as part of this plan.

Need to Modify Current Measures

Alexander County

The county feels it has strong measures to help mitigate many hazards. Many of these measures are found in local ordinance, North Carolina law or federal code or regulations. County ordinances have been examined in detail by the Hazard Mitigation Task Force / LEPC and are found adequate regarding flood damage mitigation, especially the adoption of Alexander County Code Chapter 159 – Flood Damage Prevention Ordinance. Building codes are rigidly enforced.

There are no known hazardous chemical manufacturing facilities in Alexander County. A number of facilities (as listed in the Alexander County Emergency Operations Plan) are users of hazardous materials. Many facilities using or storing hazardous materials are required by the SARA Title III to report quantities of such materials to state and local Emergency Management and the fire department of the jurisdiction. Mitigation efforts have taken place for the past decade to (1) eliminate the use of such chemicals by the manufacturer or (2) encourage the manufacturer or user to implement chemical alternatives that are less injurious and more environmentally favorable. There is a need to closely monitor the importation of hazardous materials and their use. Planning is mandated for all extremely hazardous substances reported under Title III. The County is in compliance with this and reviews are held annually, regarding the continued use of such products. Mitigation efforts continue routinely to address this important task of reducing the amount and type of chemicals being used or stored.

At this time, Alexander County does not have an immediate need to significantly alter current mitigation measures, however, Alexander County will continue its review of legal, regulatory or voluntary measures on an ongoing basis and modifications may be made accordingly. Alexander County remains open to any ways to make the community more resilient and will continue to seek out opportunities for such growth. Changes to goals and objectives will be coordinated efforts and based on the planning process outline previously covered in this document. Recommendations for new goals and objectives are found in Mitigation Strategy.

Town of Taylorsville

The Town of Taylorsville has numerous mitigation measures in place and those have been incorporated into Current Mitigation Measures. The Town of Taylorsville has gone to great lengths to insure that it has quality hazard mitigation and has developed some initiatives that are unique to the Town as well as a joint mitigation strategy with the county, to develop and implement those initiatives. It has developed a water conservation management ordinance that is unique to the Town as well as an aggressive cooperation program with Duke Energy to insure losses of electric utilities are kept to a minimum.

The Town of Taylorsville participates with the county on many levels and one of those is the area of Emergency Management. The Emergency Management coordinator for the county also serves the Town of Taylorsville. The Town of Taylorsville continues to participate in exercises for preparedness and conduct mitigation actions unique to the Town of Taylorsville.

Industries in the corporate limits of the Town of Taylorsville that use chemicals, requiring reporting under SARA Title III, report this information to Alexander County Emergency Management and the Central Alexander/Taylorsville Fire Department. In the Town of Taylorsville only one Extremely Hazardous Substance (EHS) facility is reported. This is listed in the Alexander County Emergency Plan and planning process, as required under Title III, is on file in the Office of Emergency Management.

The Town of Taylorsville does not have any Special Flood Hazard Area that includes structures. There are no steep slopes (> 30 percent) that have businesses or critical facilities as indicated by current topographical/soils maps, available from Alexander County GIS. The Town of Taylorsville does have one special concern area regarding flooding and this is included in the Flood Hazard Assessment. A mitigation goal for this special concern area is included in Section VI.

The Town of Taylorsville participated in the plan and update processes through meetings with county officials, planners and the Task Force. Individual interviews with Town of Taylorsville agency personnel were also conducted. Town officials expressed no concerns regarding hazards that had not already been identified and could not identify any concern that was unique to Taylorsville, other than the one extremely hazardous substance facility (Town of Taylorsville Water Treatment Plant) mentioned above. The

Town of Taylorsville felt that mitigation measures proposed in this plan were more than adequate to address the needs of both the county and the Town of Taylorsville.

At this time the Town of Taylorsville feels that it does not have an immediate strong need to alter its mitigation measures, however, Taylorsville will continue its review of legal, regulatory or voluntary measures on an ongoing basis and modifications may be made accordingly. Updates in the plan, when made within the five year period, as required, will include any issues presented that are unique to Taylorsville. Changes to goals and objectives will be a coordinated effort and based on the planning process outline previously covered in this document. Taylorsville agrees with the recommendations for new goals and objectives that are found in Mitigation Strategy.

Hazard Vulnerability Assessment Index

Alexander County and the municipalities, following the intent of Senate Bill 300, and the Disaster Mitigation Act of 2000, have assessed their vulnerability to hazards.

The hazards identified include those listed below. Other natural or man-made hazards that could occur in other parts of the country (i.e.: volcanoes, tsunamis, aircraft accidents, etc.) were not analyzed because of (1) the location of our jurisdiction, (2) there was no history of any such occurrence and the likelihood of such an occurrence was less than .1 percent, (3) there was no indication in any researched document that such events were ever likely to occur. Therefore, the Hazard Mitigation Task Force felt it appropriate that time and very limited resources be used to identify and analyze those realistic hazards listed below.

Also see Current Mitigation Measures
Levels = 5 High, 4 Moderate, 3 Moderate, 2 Low, 1 Low

ALEXANDER COUNTY THREAT / HAZARD INDEX	Rating	Level
Drought	2	Low
Earthquake	3	Moderate
Floods	3	Moderate
Forest Fires	2	Low
Hazardous Materials (transport & fixed facility)	5	High
Hurricanes	2	Low
Severe Thunderstorms	4	Moderate
Terrorist Activity (includes biologics)	1	Low
Tornados	4	Moderate

Hazard Maps

Hazard maps were developed and provided by Alexander County Mapping Department. Interactive maps are available from the County at no cost. Contact Alexander County Emergency Management or Alexander County Mapping/GIS for the proper computer files. Hazard Maps can be found at Appendix Two.

Section VI: Plan Implementation

Plan Implementation

Perhaps the difficult portion of the Alexander County Hazard Mitigation Plan has been the implementation process. Debate has centered on funding for the initiatives outlined in the Mitigation Strategy. Most members of the Hazard Mitigation Task Force agree that, with sufficient funding, the primary goals and objectives that have been outlined can be accomplished within specified time periods. The Hazard Mitigation Task Force / LEPC decided on the "action plan" approach, which outlines the actions that will be taken to achieve the objective, as well as time lines and the primary area or agency that will have the responsibility for carrying out the action.

Without guarantees of funding, specific actions or timelines for implementation for each objective identified remain supposition. Without promise of funding, the Hazard Mitigation Task Force / LEPC feels that the time required to develop an action plan for each objective would be cost and time prohibitive.

General action plans have been developed to implement the plan. The following outline was developed to assess those areas of the plan of interest or concern.

In the time since the original plan was created and adopted, the county has experienced difficulties finding funding resources for the mitigation actions and projects that have been put forth by the Hazard Mitigation Task Force/LEPC. The county has revisited these projects every year and has determined that there has not been adequate funding for these measures. Going forward, the County will continue to seek federal grant funds and county dollars to initiate these projects. All reasonable efforts will be made to see progress on these initiatives in the coming months and years.

Mitigation Strategy

The primary goal of the joint town/county mitigation strategy within the next 10 years is to reduce the number of deaths, injuries, and economic costs caused by natural and man-made hazards. This strategy proposes nine major elements and five major goals, spanning a continuum that ranges from research to the formulation and implementation of policy and further hazard mitigation. These have been prioritized and included in this plan based on their ability to provide maximum benefit to the community as a whole at a minimum cost. When funding becomes available, the elements of the strategy will be prioritized based on the amount of funding and the needs of the community at the time. The LEPC will meet to determine prioritization. Elements of the strategy are:

1. Research – Developing an understanding of the natural and man-made hazards that effect the county and the municipalities,
2. Hazard Mapping and Assessments – Delineating susceptible areas and different types of hazards at a scale useful for planning and decision-making,

3. Real-Time Monitoring- Monitoring of current mitigation measures and evaluation of those efforts in a real time mode. How effective are our current programs? What measures can be put into place immediately to further reduce or minimize loss of life, injuries and economic costs prior to, during and immediately following a disaster,
4. Loss Assessment – Compiling and evaluating information on the economic impacts of hazards on a local level,
5. Information Collection, Interpretation, and Dissemination – Establishing an effective system for information transfer,
6. Guidelines and training – Developing guidelines and training for responders, managers and other professionals, and decision-makers,
7. Public Awareness and Education – Developing information and education for the community,
8. Implementation of Loss Reduction Measures – Encouraging mitigation actions, and
9. Emergency Preparedness, Response, and Recovery – Building resistant and resilient communities

Implementation of the strategy will require increased local funding as well as funding from state and federal sources in the forms of grants. Without additional funding, the county and municipality will continue to struggle to accomplish mitigation goals and actions that require expenditures. Accomplishment of these recommendations is largely dependant upon funding being available from federal, state, local and private resources. The County will continue to apply for federal dollars to attempt to meet its mitigation goals and tackle the mitigation projects it has outlined.

It is likely that any recommendations will test the limits of the fiscal and political willingness to implement the mitigation recommendations and actions. Implementation will also require better coordination among levels of government, and partnerships among government, the public, private and nonprofit sectors. Such cooperation will encourage innovative programs and incentives for hazard planning, adoption of loss reduction measures, and implementation of new technology. Specifically, this strategy recommends the following goals:

Mitigation Goals

1. Expansion of emergency response forces
2. Formation of a cooperative hazard mitigation program to integrate hazard mitigation into new developments, commercial districts, land use planning, growth planning, infrastructure and other initiatives,
3. Prevention, through ordinance, the construction or occupancy of facilities that will house or are likely to house extremely hazardous substances as defined in SARA Title III.
4. Maintenance of a standing Hazard Mitigation Task Force to serve as a technical extension of the various planning boards
5. Initiation of hazard mitigation research into residential or commercial construction projects that are proposed for areas within 50 yards of the one

- percent (100 year) flood plain. It is integral to success that findings be reported to the respective planning boards, as appropriate or requested (*see below*).
6. Request that developers of projects that exceed 25 residential structures or exceed five commercial occupancies, proposed for locations within one-half mile of a US or NC highway, complete a hazard mitigation plan that includes evacuation routes, evacuation timeline estimates for additional traffic, environmental / infrastructure impact. In addition to current environmental impact requirements the plans shall include water run off, water and sewer impacts, law enforcement, fire protection and emergency medical service impacts and additional daily traffic impacts. (*see below*)
 7. Provision for "zero development" for any new commercial, residential, or livestock housing construction inside the established 100 year flood plain. (*see below*)
 8. Provision for stand-by emergency generators with transfer switch and a 72 hour fuel capacity at all critical facilities by the year 2015. (*see below*)
 9. Provision of a stand-by emergency generator with transfer switch and a 72 hour fuel capacity at any new critical facility constructed, remodeled or reconstructed after January 1, 2005. (*see below*)
 10. Requirement of any existing health care facility, assisted living facility, skilled care facility or other such health care or geriatric care facility that operates 24 hours, seven days a week, with greater than ten resident clients, to install a full capacity, stand-by emergency generator with transfer switch and a 72 hour fuel capacity at any such facility on or prior to January 1, 2010. (*see below*)
 11. Requirement of any health care facility, assisted living facility, skilled care facility or other such health care or geriatric care facility that operates 24 hours, seven days a week, with greater than ten resident clients, to install a stand-by emergency generator with transfer switch and a 72 hour fuel capacity at any such facility who's construction begins on or after January 1, 2005. (*see below*)
 12. Provision for voluntary implementation of commercial and residential wind resistant structures.
 13. Retrofit or relocation of residential structures currently located in the 100 year flood plain to a base elevation one foot above the flood plain.
 14. Retrofit all critical facilities to reduce collapsing materials such as light fixtures, ceiling tiles, shelves or other unsecured material.
 15. Request that Duke Energy installs both audible and visual warning devices for flood gate opening and dam breach at Oxford Dam.

**Table MS 1
Mitigation Goals Priority - County**

Priority	Goal / Action Plan
1.	Implementation of Loss Reduction Measures
1a.	Improved drainage along tributary of Muddy Creek - Special concern - Town of Taylorsville
2.	Public Awareness and Education

3.	Formation of a cooperative hazard mitigation program to integrate hazard mitigation into new developments, commercial districts, land use planning, growth planning, infrastructure and other initiatives.
4.	Expansion of emergency response forces
5.	Retrofit or relocation of residential structures currently located in the 100 year flood plain to a base elevation one foot above the flood plain and participate in available buy-out programs.
6.	Guidelines and training
7.	Retrofit all critical facilities to reduce collapsing materials such as light fixtures, ceiling tiles, shelves or other unsecured material.
8.	Information Collection, Interpretation, and Dissemination
9.	Real-Time Monitoring
10.	Request that Duke Energy install both audible and visual warning devices for flood gate opening and dam breach at Oxford Dam.
	The mitigation goals / actions priority listed in this table is the result of a subjective discussion by the Hazard Mitigation Task Force / LEPC / EM Coordinator / County Planner and is not binding. In the discussion, issues regarding funding, cost versus benefit, funding availability, practicality and how the goal or action would be perceived by the public were all considered and factored into the selection of the goals. Discussion also involved the right thing to do for the community and the citizens that may be affected by implementation of mitigation measures.

It should be noted that any and all prioritization that is done when funding is available should be based, at least in part, on an updated analysis of the cost-benefit analysis of each project and priority.

Action Plans

Real-Time Monitoring

The preparedness, response and recovery phases of a comprehensive emergency management program are opportune times to conduct real-time monitoring of mitigation efforts. This project proposes that such monitoring provides an effective tool to immediately improve upon current mitigation programs and future programs that may be impacted.

1. Concept:
Consolidation of written (electronic or plain copy) documents into a single, seamless, integrated plan that incorporates all phases of a comprehensive emergency management program. This would allow emergency managers, planners and elected officials an opportunity to examine their mitigation efforts in conjunction with preparedness plans, response procedures and recovery activity. This concept is concurred by Alexander County and the Town of Taylorsville. It is desired that the feasibility portion of this project be

completed by December 31, 2012, assuming funding can or will be approved.

This action mitigates against all hazards.

2. Project scope:
 - Determine the lead agency that will be responsible for project development. (Projected to be Emergency Management)
 - Determine the feasibility of the project.
 - Determine the information to be integrated.
 - Determine the information that can be shared with the public and a method of allowing such access.
 - Determine a method for allowing access to secured areas of a data base, by authorized users.
 - Automate, as much as possible the preparedness, response and recovery information processes.
 - Determine the cost for project implementation.
 - Seek funding from federal sources such as Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program and others.
3. Implementation:
 - To be determined after a study of the capabilities of all available technology is completed and the project scope has been completed.
4. Cost analysis:
 - Cost-benefit review will be undertaken once funding sources have been secured and prioritization has allowed for this project to be initiated. The costs of and benefits from real-time monitoring will be calculated to determine that meeting the goal is cost effective.

Information Collection, Interpretation, and Dissemination

One of the keys to a successful implementation of a hazard mitigation strategy is information. Without information and the dissemination of that information, planners, managers, elected officials, the public and private industry will not be able to make effective hazard mitigation decisions. Currently the ability of planners to implement mitigation is hampered by the ability of all town and county agencies involved to communicate and coordinate plans. Whether this is a plat submitted for development, a new commercial district or proposed road and street additions.

1. Concept:
 - Use of technology to accomplish an automated system to coordinate plans information, development information, road expansion information or other demographics is desired. Further, it is desired that Town of Taylorsville and county automated systems that contain such information have the ability to be integrated with one another and relative information shared between the systems. This concept is concurred by Alexander County and the Town of Taylorsville. It is desired to have the feasibility portion of this project completed by December 31, 2011, assuming funding can or will be approved.

This action mitigates against all hazards.

2. **Project scope:**
 - Determine the lead agency that will be responsible for project development. (Projected to be EM and Information Systems)
 - Determine the feasibility of the project.
 - Determine the capability of systems to be integrated.
 - Determine the information that can be shared with the public and a method of allowing such access.
 - Determine a method for allowing access to secured areas of a data base, by authorized users.
 - Automate, as much as possible the planning and inspections processes.
 - Determine the cost for project implementation.
 - Seek funding from federal sources such as Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program and others.
3. **Implementation:**
 - To be determined after a study of the capabilities of all available technology is completed and the project scope has been completed.
4. **Cost analysis:**
 - Cost-benefit review will be undertaken once funding sources have been secured and prioritization has allowed for this project to be initiated. The costs of and benefits from information collection, interpretation and dissemination will be calculated to determine that meeting the goal is cost effective.

Guidelines and Training

The establishment of guidelines that will be used in a joint town/county mitigation plan and the training of personnel in those guidelines is perhaps one of the more important projects that will be carried out. This will take a tremendous cooperative effort on behalf of all participants at an unprecedented level. Joint guidelines that are transparent to jurisdictional boundaries are desired. With the ever expanding jurisdictional boundaries of the municipalities, through annexation, it is imperative that clear understanding of guidelines that are used by both the municipality and the county in such joint efforts be conveyed to managers, planners, inspectors, mapping, addressing, emergency management and ,when appropriate, emergency response personnel.

1. **Concept:**
 - To establish, where feasible, joint town and county guidelines for hazard mitigation implementation and to use all available information in the decision making process that is likely to effect within a five (5) year period, based on growth projections, a municipal jurisdiction. This includes planning and zoning authority that is currently exercised by either the municipality or the county. This concept is concurred by Alexander County and the Town of Taylorsville. It is desired to have the feasibility portion of this project completed by

December 31, 2011, assuming funding can or will be approved.

This action mitigates against all hazards

2. **Project scope:**
 - Determine the lead agency that will be responsible for project development. (Projected to be EM and HM Task Force)
 - Determine the feasibility of the project.
 - Determine the capability (legally, physically and politically) of jurisdictions to form joint guidelines.
 - Determine the information that can be shared with the public and a method of allowing such access.
 - Determine a method for providing the most cost effect training of users in established guidelines.
 - Automate, as much as possible the planning and inspections processes and train those responsible for data management.
 - Determine the cost for project implementation.
 - Seek funding from federal sources such as Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program and others.
3. **Implementation:**
 - To be determined after a study of the capabilities of all available technology is completed and the project scope has been completed.
4. **Cost analysis:**
 - Cost-benefit review will be undertaken once funding sources have been secured and prioritization has allowed for this project to be initiated. The costs of and benefits from establishing guidelines and training will be calculated to determine that meeting the goal is cost effective.

Public Awareness and Education

Alexander County and the municipalities carry out a large number of hazard mitigation, public education projects. Current mitigation efforts in public awareness and education can be found in the "Current Mitigation Measures" section of this plan. Each is identified by hazard and the multitude of efforts that are carried out by both the public and the private sector. This particular portion of the mitigation strategy however; deals with new initiatives that are proposed, planned, recommended or at least recommended for further examination.

1. **Concept:**
 - To establish, where feasible, joint town and county public education materials and public information for hazard mitigation implementation. This concept is concurred by Alexander County and the Town of Taylorsville. It is desired to have the feasibility portion of this project completed by December 31, 2012, assuming funding can or will be approved.

This action mitigates against all hazards

2. **Project scope:**
 - Determine the lead agency that will be responsible for project development. (Projected to be Hazard Mitigation Task Force)
 - Determine the feasibility of the project.
 - Determine the capability (legally, physically and politically) of jurisdictions to form joint public information programs, brochures, handouts, etc.
 - Establish a goal of the number of brochures to be distributed, and their method of distribution.
 - Establish a goal of the number of public presentations to be conducted and the method by which these presentations will be carried out (i.e. Power Point presentations, videos, personal appearances, public radio and television, etc.)
 - Establish locations on current websites that can be accessed by the public, a place for hazard mitigation information (i.e. Links)
 - Establish a method for using print media, such as newspapers, circulars and periodicals to inform and educate the public.
 - Establish a method and procedure for using mail to notify the public of mitigation efforts they can carry out as well as informing them of existing hazards (i.e. *...do you know you live in a flood plain? Do you have flood insurance?...*)
 - Determine the cost for project implementation.
 - Seek funding from federal sources such as Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program and others.
3. **Implementation:**

To be determined after a study of the capabilities of all available technology is completed and the project scope has been completed.
4. **Cost analysis:**

Cost-benefit review will be undertaken once funding sources have been secured and prioritization has allowed for this project to be initiated. The costs of and benefits from establishing public education materials will be calculated to determine that meeting the goal is cost effective.

Implementation of Loss Reduction Measures

The implementation of this mitigation strategy is dependant upon several factors. Perhaps most important is funding. Historically the municipality and the county have relied on funding from state and federal sources to implement mitigation measures. This may not be possible in future efforts. Each agency, determined to be responsible for a project or portion of that project, must be innovative and cost effective in its recommendations. Recommendations that require implementation by ordinance will be required to follow the same due process afforded to any ordinance addition or modification. These require public hearings and each agency, determined to be responsible for such recommendations must be prepared to justify the recommendation. Public education and awareness prior to implementation is essential, as well as public support for mitigation measures.

1. **Concept:**
To establish, where feasible, joint town and county mitigation funding sources. To establish joint searches for opportunities to implement hazard mitigation goals, objectives, or recommendations. This concept is concurred by Alexander County and the Town of Taylorsville. It is desired to have the feasibility portion of this project completed by December 31, 2010, assuming funding can or will be approved.

This action mitigates against all hazards.

2. **Project scope:**
Determine the lead agency that will be responsible for project development.
(Projected to be County and municipal executives)
Determine the feasibility of the project.
Determine the capability (legally, physically and politically) of jurisdictions to form joint public funding sources or seek joint funding, where practical to implement hazard mitigation goals, goals or recommendations.
Establish a rapid method of grant application and approval for such applications.
Establish a goal of the number of recommendations and their priority, to be analyzed and or carried out on an annual basis.
Establish closer working relationships with those persons or agencies that are known to be sources of funding or known to be providers of publications and or public information regarding hazard mitigation efforts. (i.e. FEMA)

Establish other innovative potential other than direct funding, for project or recommendation implementation.
Determine the cost for project implementation.
Seek funding from federal sources such as Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program and others.
3. **Implementation:**
To be determined after a study of the capabilities of all available technology is completed and the project scope has been completed.
4. **Cost analysis:**
Cost-benefit review will be undertaken once funding sources have been secured and prioritization has allowed for this project to be initiated. The costs of and benefits from establishing joint mitigation funding sources will be calculated to determine that meeting the goal is cost effective.

Emergency Preparedness, Response, and Recovery

See the Alexander County Emergency Operations Plan. This plan has been formally adopted by the county and by the municipalities in accordance with NCGS 166A. This plan, along with procedures can be viewed by the public at website www.co.alexander.nc.us or the Alexander County Public Library. This has already been accomplished with the updates to the county Emergency Operations Plan conducted by

all response and coordination agencies for all jurisdictions. The updated county EOP will be available for inspection on or before June 1, 2010.

Detailed Goals

Goal: Expansion of emergency response forces

The implementation of this mitigation strategy is dependant upon several factors. Perhaps most important is funding. Historically the municipality and the county have relied on funding from general revenue to implement expansions of emergency services response forces. Each agency, determined to be responsible for a project or portion of that project, must be innovative and cost effective in its recommendations. Public education and awareness prior to implementation is essential, as well as public, elected official and administrative support for this goal.

1. **Concept:**
To establish, where feasible, additional emergency response forces, by at least 10%, that are trained, equipped and prepared to respond to a variety of emergency and disaster situations. This concept is concurred by Alexander County and the Town of Taylorsville. It is desired to have the feasibility portion this project completed by July 1, 2011, assuming funding can or will be approved.

This goal mitigates against all hazards.

2. **Project scope:**
Determine the lead agency that will be responsible for project development.
(Projected to be County and municipal executives)
Determine the feasibility of the project.
Determine the overall impact on general fund revenues and the impact on budget.
Determine the capability (legally, physically and politically) of jurisdictions to form public funding sources or seek joint funding, where practical to implement this goal and recommendation.
Establish a rapid method of grant application and approval for such applications, where applicable.
Establish closer working relationships with those persons or agencies that are known to be sources of funding (i.e. FEMA)
Establish other innovative potential other than direct funding, for project implementation.
Determine the cost for project implementation.
Seek funding from federal sources such as Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program and others.

3. **Implementation:**
To be carried out in the course of annual budget preparations, determined after study of the current capabilities of all response forces is completed and the project scope

has been completed.

4. Cost analysis:

Cost-benefit review will be undertaken once funding sources have been secured and prioritization has allowed for this project to be initiated. The costs of and benefits from expanding emergency response forces will be calculated to determine that meeting the goal is cost effective.

Goal: Formation of a cooperative hazard mitigation program to integrate hazard mitigation into new developments, commercial districts, land use planning, growth planning, infrastructure and other initiatives.

1. Concept:

The integration of a cooperative hazard mitigation program into new development, commercial districts, infrastructure and land use planning become imperative as Alexander County continues to grow. According to the North Carolina Department of Commerce (EDIS), Alexander County experienced an 11% increase in population from 2000 to 2008. This goal also includes the objectives (goals) of:

- Hazard mitigation research into residential or commercial construction projects that are proposed for areas within 50 yards of the 1 percent (100 year) flood plain and report findings to the respective planning board, as appropriate or requested,
- Request developers of projects that exceed twenty five residential structures or exceed five commercial occupancies, proposed for locations within one-half mile of a US or NC highway, complete a hazard mitigation plan that includes evacuation routes, evacuation time line estimates for additional traffic, environmental / infrastructure impact, that in addition to current environmental impact requirements shall include water run off, water and sewer impacts, law enforcement, fire protection and emergency medical service impacts and additional daily traffic impacts.
- Provide for "zero development" for any new commercial, residential, or livestock housing construction inside the established 100 year flood plain.
- Provide stand-by emergency generators with transfer switch and a 72 hour fuel capacity at all critical facilities by the year 2015.
- Provide a stand-by emergency generator with transfer switch and a 72 hour fuel capacity at any new critical facility constructed, remodeled or reconstructed after January 1, 2005.
- Require the owner of any existing health care facility, assisted living facility, skilled care facility or other such health care or geriatric care facility that operates twenty-four hours, seven days a week, with greater than ten (10) resident clients, to install a full capacity, stand-by emergency generator with transfer switch and a 72 hour fuel capacity at any such facility on or prior to January 1, 2010.
- Require the owner/developer of any health care facility, assisted living

facility, skilled care facility or other such health care or geriatric care facility that operates twenty-four hours, seven days a week, with greater than ten resident clients, to install a stand-by emergency generator with transfer switch and a 72 hour fuel capacity at any such facility who's construction begins on or after January 1, 2005.

This concept is concurred by Alexander County and the Town of Taylorsville. It is desired to have the feasibility portion this project completed by July 1, 2010, assuming funding can or will be approved.

This goal mitigates against all hazards.

2. Project scope:
 - Determine the lead agency that will be responsible for project development. (Projected to be County and municipal executives, with delegation of study to county planners, Social Services and others)
 - Determine the feasibility of the project or projects.
 - Establish a priority methodology for each of the goals listed above.
 - Determine the overall impact on general fund revenues and the impact on budget.
 - Determine the capability (legally, physically and politically) of jurisdictions to implement recommendations.
 - Establish a rapid method of grant application and approval for such applications, where applicable.
 - Establish closer working relationships with those persons or agencies that are known to be sources of funding (i.e. FEMA)
 - Establish other innovative potential other than direct funding, for project implementation.
 - Determine the cost for project implementation.
 - Seek funding from federal sources such as Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program and others.

3. Implementation:
 - Phase I. To be carried out in the course of annual budget preparations, determined after study of the current Comprehensive Plan, current ordinances and other documents.

 - Phase II. To be carried out upon the development of recommended ordinance changes as appropriate, giving ample opportunity for the public and affected parties to present concerns to planning boards and elected officials. Public hearings or other forms of due process will be afforded in accordance to local ordinance and or state law.

4. Cost analysis:
 - Cost-benefit review will be undertaken once funding sources have been secured and

prioritization has allowed for this project to be initiated. The costs of and benefits from forming a cooperative hazard mitigation program will be calculated to determine that meeting the goal is cost effective.

Goal: Retrofit or relocate residential structures currently located in the 100 year flood plain to a base elevation one foot above the flood plain and participate in available buy-out programs.

This goal may seem a low priority project to some officials. However, a recent count of structures inside the 100 year flood plain indicates that flooding could occur of such a magnitude to cause a significant impact on citizens that are affected. The state of North Carolina is familiar with "buy out" programs in flood plains and flood prone areas. Federal and state officials feel that by (1) removing people from the hazard and (2) preventing citizens from placing themselves (intentionally or not) in harms way, this reduces the cost to Alexander County, the State and the Federal Government and saves lives. By further enacting a "zero" tolerance for persons desiring to build in the floodplain and prohibiting development in those areas, Alexander County better prepares itself to reduce or eliminate the loss of life and habitable property. This goal is entirely dependant upon state and federal funding and the ability to provide adequate public information to citizens that may be effected. This will be a difficult goal to obtain, if not impossible without state and federal monetary commitments.

1. Concept:
To establish, where feasible, the retrofit, relocation or purchase of habitable structures in the 100 year (1%) floodplain. To plan for the retrofit, relocation or purchase of habitable structures at the rate of 10% per annum until the project is complete. This concept is concurred by Alexander County and the Town of Taylorsville. It is desired to have the feasibility portion this project completed by July 1, 2011, assuming funding can or will be approved.

This goal mitigates against flood losses.

2. Project scope:
Determine the lead agency that will be responsible for project development. (Projected to be Emergency Management, County planning and the NC Division of Emergency Management)
Determine the feasibility of the project.
Determine the capability (legally, physically and politically) of jurisdictions to implement such a program, including grants management.
Establish a rapid method of grant application and approval for such applications, where applicable.
Establish closer working relationships with those persons or agencies that are known to be sources of funding (i.e. FEMA)
Determine the cost for project implementation.
Seek funding.

3. Implementation:
To be carried out in the course of floodplain map preparation by the contracted firm of the State of North Carolina, which is developing new flood plain maps. These maps were made available by January, 2004 from the Division of Emergency Management.
4. Cost analysis:
Cost-benefit review will be undertaken once funding sources have been secured and prioritization has allowed for this project to be initiated. The costs of and benefits from retrofitting or relocating structures will be calculated to determine that meeting the goal is cost effective.

Goal: Retrofit all critical facilities to reduce collapsing materials such as light fixtures, ceiling tiles, shelves or other unsecured material.

The implementation of this mitigation strategy is dependant upon several factors. Perhaps most important is funding. Historically the municipality and the county have relied on funding from general revenue to implement capital improvements, repairs to government structures and other critical facilities. Each agency, determined to be responsible for a project or portion of that project, must be innovative and cost effective in its recommendations. This includes the possibility of funding under hazard mitigation grant programs that may be available. Public education and awareness prior to implementation is essential, as well as public, elected official and administrative support for this goal.

1. Concept:
To establish, where feasible, additional structural and fixture integrity by 25%. At a minimum all critical facilities should be surveyed by earthquake planners and structural engineers employed by the Division of Emergency Management that are trained, equipped and knowledgeable to prepare reports and recommendations to local officials. This concept is concurred by Alexander County and the Town of Taylorsville. It is desired to have the feasibility portion this project completed by July 1, 2011, assuming funding can or will be approved.

This goal mitigates against hurricanes, tornadoes, severe storms and straight line winds. Due to the fact that critical facilities help members of the community respond to and recover from events, it is likely that many other events are mitigated against by retrofitting the critical facilities.

2. Project scope:
Determine the lead agency that will be responsible for project development. (Projected to be Emergency Management and County inspections)
Determine the feasibility of the project.
Determine the overall impact on general fund revenues and the impact on budget.

Determine the capability (legally, physically and politically) of jurisdictions to form public funding sources or seek joint funding, where practical to implement this goal and recommendation, including grants.

Establish a rapid method of grant application and approval for such applications, where applicable.

Establish closer working relationships with those persons or agencies that are known to be sources of funding (i.e. FEMA)

Establish other innovative potential other than direct funding, for project implementation.

Determine the cost for project implementation.

Seek funding from federal sources such as Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program and others.

3. Implementation:

To be carried out in the course of annual budget preparations, determined after study of the current capabilities of local agencies to perform assessments or the resources available from the Division of Emergency Management.

4. Cost analysis:

Cost-benefit review will be undertaken once funding sources have been secured and prioritization has allowed for this project to be initiated. The costs of and benefits from retrofitting all critical facilities will be calculated to determine that meeting the goal is cost effective.

Goal: Request that Duke Energy install both audible and visual warning devices for flood gate opening and dam breach at Oxford Dam.

1. Concept:

Oxford Dam, which spans the Catawba River and forms Lake Hickory restrains millions of gallons of water. Recent inundation maps from Duke Energy, the owner of Oxford Dam and hydroelectric facility, show considerable land mass inundation along the Catawba River in the unlikely event of a dam core breach or catastrophic flooding event.

The Hazard Mitigation Task Force / LEPC feels that warning systems that would be both visual and audible to boaters and other users of the water way, as well as residences that may be occupied down stream would be beneficial in the attempt to save lives in a fast breaking event.

This concept is concurred by Alexander County and the Town of Taylorsville. It is desired to have the feasibility portion this project completed by July 1, 2010, assuming funding can or will be approved by Duke Energy and or state agencies.

This goal mitigates against flooding.

2. **Project scope:**
 - Determine the lead agency that will be responsible for project development. (Projected to be Emergency Management and Duke Energy)
 - Determine the feasibility of the project or projects.
 - Establish a priority methodology for a warning system.
 - Determine the overall impact on general fund revenues and the impact on budget, if any.
 - Determine the overall impact on Duke Energy and costs that may be associated with such a system.
 - Determine the capability (legally, physically and politically) of agencies to implement recommendations.
 - Establish a rapid method of grant application and approval for such applications, where applicable.
 - Establish closer working relationships with those persons or agencies that are known to be sources of funding (i.e. FEMA)
 - Establish other innovative potential other than direct funding, for project implementation.
 - Determine the cost for project implementation.
 - Seek funding from federal sources such as Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program and others.

3. **Implementation:**
 - Phase I. To be carried out in the course discussions with Duke Energy, determined after study of the current policy of Duke Energy regarding implementation of such systems.

 - Phase II. To be carried out upon the development of recommended systems. To be carried out according to a mutually agreed upon schedule by Duke Energy, if such a goal can be agreed upon by local officials and Duke Energy. If appropriate, public hearings or other forms of due process will be afforded in accordance to local ordinance and or state law.

4. **Cost analysis:**
 - Cost-benefit review will be undertaken once funding sources have been secured and prioritization has allowed for this project to be initiated. The costs of and benefits from installing audible and visible warning devices will be calculated to determine that meeting the goal is cost effective.

Town of Taylorsville Specific Goal: Seek assistance from NC DOT and other agencies to improve drainage on Muddy Creek tributary.

1. **Concept:**
 - A tributary of Muddy Creek extends from Northwood / Northmont south and a second tributary south under South Center Street just north of the intersection of

South Center and Royal Russel and SR 1600. These tributaries are known to local residents and officials to have high water after prolonged periods of rain. There is a possibility that drainage designs are preventing good drainage in the area, but this needs further study by Town of Taylorsville Public Works and NC DOT. Map 1 on the Hazard Maps page, indicates the area of special concern for the Northwood / Northmont area and Map 2 on the Hazard Maps page, indicates the area of special concern for South Center Street.

The Hazard Mitigation Task Force / LEPC and Town of Taylorsville Officials feel that continued inattention to these areas will likely result in eventual property damages to nearby structures.

This concept is concurred by Alexander County and the Town of Taylorsville. It is desired to have the feasibility portion this project completed by July 1, 2010, assuming funding can or will be approved by state agencies.

This goal mitigates against flooding.

2. Project scope:
 - Determine the lead agency that will be responsible for project development. (Taylorsville Public Works)
 - Determine the feasibility of the project or projects.
 - Determine the overall impact on general fund revenues and the impact on budget, if any.
 - Determine the capability (legally, physically and politically) of agencies to implement recommendations.
 - Establish a rapid method of grant application and approval for such applications, where applicable.
 - Establish closer working relationships with those persons or agencies that are known to be sources of funding (i.e. FEMA)
 - Establish other innovative potential other than direct funding, for project implementation.
 - Determine the cost for project implementation.
 - Seek funding from federal sources such as Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program and others.

3. Implementation:
 - Phase I. To be carried out in the course discussions with NC DOT, determined after study of the current policy of NC DOT and further examination of the priorities of Town of Taylorsville officials regarding improvements in drainage systems for the special concern areas.

 - Phase II. To be carried out upon the development of recommended systems and solutions. To be carried out according to a mutually agreed upon schedule by NC DOT and the Town of Taylorsville, if such a goal can be agreed upon by local

officials and NC DOT (where applicable). If appropriate, public hearings or other forms of due process will be afforded in accordance to local ordinance and or state law

4. Cost analysis:

Cost-benefit review will be undertaken once funding sources have been secured and prioritization has allowed for this project to be initiated. The costs of and benefits from improving drainage on Muddy Creek will be calculated to determine that meeting the goal is cost effective.

Appendix One - List of Critical Facilities



ALEXANDER COUNTY / TOWN OF TAYLORSVILLE

CRITICAL FACILITY LIST

Critical Facilities are defined for the purpose of this document as those facilities essential to the preservation of life and property during a disaster and or those facilities critical to the continuity of government as well as those necessary to ensure timely recovery. Some square footage dimensions are approximate. The methodology used to calculate replacement costs is outlined below.

Alexander County Administrative Offices	NC Department of Transportation
Alexander County Sheriff's Office	
Alexander County Jail	
Alexander County Communications Center (EOC)	
Alexander County Solid Waste Facility	Alexander County Schools (all facilities)
Alexander County Health Department	Alexander County School Bus Garage
Alexander County Dept of Social Services	
Alexander County Emergency Medical Service (all stations)	American Red Cross
Alexander County Planning and Development	
Alexander County Animal Control	Duke Energy Distribution system
	Energy United Distribution system
Alexander Rescue Squad and EMS, Inc.	Energy United Water Corporation (wells and tanks)
County Volunteer Fire Departments (all stations)	Hickory Water Distribution in Alexander County
Town of Taylorsville City Hall	Taylorsville Airport
Taylorsville Police Department	

There are no known critical facilities, structures (public or private) that are known to have repetitive losses. Common losses have been incurred in utility distribution systems, but these losses have not always been at the same locations and are therefore not considered repetitive. There are no known residential or commercial structures that have experienced repetitive losses. The methodology used to calculate replacement value was based on (1) current tax records available at

the time, (2) land values, (3) value of contents based upon records. These figures were combined based on current local property valuation. It should be emphasized the figures in the "replacement value" column of each table are *only* estimates and would have to be recalculated for actual loss at the time such loss occurred.

The **Alexander County Administration Office**, 621 Liledoun Road, Taylorsville, encompasses numerous county agencies, including the County Managers' Office, Finance, Purchasing, Clerk to the Board, Human Resources, Switchboard, Veterans Service, Planning Director and Information Technology. Each of these departments is critical to the continuity of county government.



Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
County Manager's Office	621 Liledoun Road	No	Yes	828-632-9332	10,752	\$701,200
Clerk to the Board	621 Liledoun Road	No	Yes	828-632-9332	10,752	\$701,200
Finance Office	621 Liledoun Road	No	Yes	828-632-4591	10,752	\$701,200
Human Resources	621 Liledoun Road	No	Yes	828-632-1132	10,752	\$701,200
Information Technology	621 Liledoun Road, Box 1	No	Yes	828-632-1380	10,752	\$701,200
Veterans Service	621 Liledoun Road, Box 8	No	Yes	832-632-5411	10,752	\$701,200

Alexander County Courthouse is a critical facility for the operations of many Alexander County functions, including all court operations in Alexander County, as well as offices for the Sheriff, Magistrates, Clerk of Superior Court, Superior Court Judges' chambers and offices of the district attorney. It also houses the Alexander County Detention facility, 911 Emergency Communications Center and the office of Emergency Management. It has full generator backup power. The facility is operated 24/7. The facility has back up communications in the form of two-way radio. It is a two story pre-cast structure with a flat terrazzo concrete roof, constructed in 1970.



Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Sheriff's Office	29 West Main Avenue,	Yes	Yes	828 632-4658	22,632	\$2,656,500
Alexander County Detention Facility	29 West Main Avenue,	Yes	Yes	828-632-4658	Included	\$2,656,500
Clerk of Superior Court	29 West Main Avenue	No	Yes	828-632-2215	Included	\$2,656,500
Judges Chambers & offices	29 West Main Avenue	No	Yes	various	Included	\$2,656,500
Courtrooms	29 West Main Avenue	No	Yes	N/A	Included	\$2,656,500
Courtrooms / Offices	29 West Main Avenue	No	partial (HVAC)	N/A	Included	\$2,656,500
Emergency Communications - 911	29 West Main Avenue	Yes	Yes	828-632-2911	Included	\$2,656,500

Alexander County Courthouse Annex is located at 75 1st Street SW, Taylorsville. This critical facility houses county records and documents for both the Register of Deeds and Tax Office. See Photo below.



Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Tax Administration	75 1 st Street SW, Suite 2	No	No	828-632-4346	4,044	\$285,400
Mapping/GIS (Tax Admin)	75 1 st Street SW, Suite 2	No	No	828-632-4346	Included	\$285,400
Register of Deeds	75 1 st Street SW, Suite 1	No	No	828-632-3152	Included	\$285,400

Alexander County Solid Waste Facility: Solid Waste has three buildings at this site. They include a Transfer Station, Scale House and Maintenance Shed. Electric utilities are provided by Energy United. This critical facility would supply the county with almost all debris management in the event of a disaster that generated such debris. Communications are internal to the facility only and are provided by two-way radio.

Agency	Address	Is the facility operated	Does the facility	Facility main phone	Approximate Square footage	Replacement Value
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		24/7? (yes/no)	have a generator (yes/no)	number		
Alexander County Solid Waste	Payne Dairy Farm Road	No	No	828-632-9467	7,706	\$479,340



Alexander County Health Department: Provides health and related services and is the agency responsible for communicating information to the public regarding biological and other health issues. Duke Power provides the electric utilities. The facility has no back-up communications systems. Square footage and replacement cost reflect half the costs.



Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Alexander County Health Dept	338 1 st Ave. SW, Suite 1	No	No	828-632-9704	2,386	\$230,500

Alexander County Dept of Social Services: Provides assistance to citizens in many forms including food stamp program, etc. It houses mostly office space and some small conference room space. Duke Power provides the electric utilities. (See photo below)



Agency	Address	Is the facility operated 24/7?	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
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		(yes/no)				
Alexander County Social Services	604 7 th St. SW	No	No	828-632-1080	9,972	\$541,900

Alexander County Emergency Medical Service has two bases of operation. The main base is located in Taylorsville. This facility not only houses EMS units 24/7, but also houses offices for the director, supervisor, training officer and the billing division. The base electric utilities are provided by Duke Energy. The Bethlehem base houses quarters for on-duty crews and some office and storage space. Duke Energy provides electric utilities. Each facility has back-up communications in the form of two-way radios (See photos below)



Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
EMS – Main Base	2430 Hwy NC 90	Yes	Yes	828-632-4166	3,500	\$194,600
EMS - Bethlehem Base	9110 Hwy 127	Yes	Yes	828-495-8040	2,400	\$104,700

Alexander County Inspection and Zoning provides inspection operations for the entire county. During disaster operations the facility will be used to carry out those functions as well as assist in damage assessment. Half of this facility is shared with the Health Department. Square footage and replacement cost reflects half of total structure (See photo below). This is housed in the Old Wittenburg Elementary School.



Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Planning and Development	80 Wittenburg Road	No	No	828-632-1000	20,065	\$230,500

Alexander County Animal Control provides animal control operations and is located within the animal shelter. This central location has enforcement officers, office staff and kennel operations. During emergency operations the shelter and staff could provide assistance for injured or effected animals. (See photo below)

Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Alexander County Animal Control	116 Waggin Trail	No	No	828-632-1199	3,794	\$232,000

Alexander Rescue Squad & EMS, Inc provides rescue operations within the bounds of Alexander County This location has rolling stock bays, as well as training facilities for rescue personnel. Alexander Rescue Squad is contracted to the county to provide rescue service and backup EMS service. The base has both back-up generator and two way radio communications.



Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Alexander Rescue Squad & EMS, Inc	197 Emergency Street P.O. Box 938,	No	Yes	828-632-9410	6540	\$370,000

County Volunteer Fire Departments provide general and specialized fire and emergency response. VFD's are contracted to provide service to the county. Most stations have some form of back-up radio communications located within the department.

Agency	Photos	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Bethlehem Fire Department		235 Teague Town Rd. Taylorsville, NC 28681	No	No	828-495-7411	6,720	\$2,157,048

Central Alexander/Taylorsville Fire Department		173 Emergency Street /63 Main Ave. Dr. Taylorsville, NC 28681	No	Yes	828-632-2060	6,300	\$233,500
Ellendale Fire Department		30 Ellendale Fire Dept. Rd. Taylorsville, NC 28681	No	No	828-632-2611	3,000	\$152,143
Hiddenite Fire Department		45 Fire Department Court PO Box 72 Hiddenite, NC 28636	No	No	828-632-3856	4,056	\$111,800
Hiddenite Fire Department, Station # 2		4472 Cheatham Ford, Hiddenite NC 28636	No	No	828-635-0111	4,000	\$143,300
Stony Point Fire Dept.		501 Ruritan Park Road PO Box 146 Stony Point, NC 28678	No	No	704-585-2519	5,000	\$302,410
Sugar Loaf Fire Dept.		3564 NC Hwy 16 North Taylorsville, NC 28681	No	No	828-632-5690	4,800	\$172,800
Vashti Fire Department		21 Vashti Fire Dept. Rd. Taylorsville, NC 28681	No	No	828-632-4344	4,320	\$148,000
Wittenburg Fire Dept.		45 Wittenburg Rd. Taylorsville, NC 28681	No	Yes	828-632-6647	4,200	\$200,000

Alexander County Schools

Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Parking Spaces	Replacement Value
Alexander Central High School	223 School Drive	No	No	828-632-7063	217,639	550	\$23,597,141

Bethlehem Elementary School	7900 NC Hwy 127, Taylorsville	No	No	828-495-8198	84,622	110	\$9,690,408
East Alexander Middle School	1285 White Plains Church Rd, Hiddenite, NC 28636	No	No	828-632-7565	90,214	125	\$8,518,232
Ellendale Elementary School	175 Ellendale Park Lane	No	Yes	828-632-4866	62,606	80	\$9,943,498
Alexander County Board of Education/ Admin Offices	700 Liledoun Rd, Taylorsville, NC	No	No	828-632-7001	12,106	50	\$1,793,739
Hiddenite Elementary School	374 Sulphur Springs Rd, Hiddenite, NC 28636	No	No	828-632-2503	51,386	85	\$6,622,568
Stony Point Elementary School	311 Stony Point School Road, Stony Point, NC 28678	No	No	704-585-6981	42,768	45	\$3,900,565
Sugar Loaf Elementary School	3600 Highway 16 North, Taylorsville, NC	No	No	828-632-2192	35,259	50	\$3,594,210
Taylorsville Elementary School	100 7th St. SW, Taylorsville	No	No	828-632-3072	59,865	90	\$6,808,178
West Alexander Middle School	85 Bulldog Lane, Taylorsville	No	No	828-495-4611	93,468	85	\$9,019,431
Wittenburg Elementary School	7300 Church Road Taylorsville	No	No	828-632-2395	78,370	105	\$9,395,883

Alexander County School Bus Garage

Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Alexander County School Bus Garage	105 Martin Luther King Dr. Taylorsville	No	No	828-632-3222	4,108	\$1,190,193

NC Department of Transportation (Alexander Unit) This state owned maintenance facility and office complex provides office and conference space for this vital agency. NCDOT also has numerous personnel and vehicles that can respond within reasonable periods to emergency roadway conditions. This agency also has snow removal and other debris removal equipment.

Agency	Address	Is the facility operated 24/7?	Does the facility have a	Facility main phone number	Approximate Square footage	Replacement Value
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		(yes/no)	generator (yes/no)			
NC Department of Transportation-County Maintenance Facility	2370 NC Hwy 90 East	No (for public)	No	828-632-2164	3,700	\$375,000

Town of Taylorsville City Hall / Taylorsville Police Department - This facility houses a number of city offices including administration, water billing, planning, mayor's office, city manager, public works and offices for the police department. This facility provides the primary operations for continuity of government for the City of Taylorsville including council chambers. These facilities are provided with electric utilities by Duke Energy. Note: This is a two-story brick veneer structure. The bottom floor is used by city maintenance for generator and other equipment storage. The sq. footage & replacement cost reflects the entire building.



Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Town of Taylorsville - City Hall	63 Main Avenue Dr.	No	No	828-632-2218	6,360	\$495,559

Taylorsville Police Department provides law enforcement services for the jurisdiction of the city. This facility houses emergency communications for the police department as well as after hours and emergency contact for light and water operations. Offices include those for patrol, investigations, narcotics, records and administration. Duke Energy provides electric utilities. The facility has back-up communications in the form of two-way radio. Square Footage and replacement cost are included in the City Hall figures above.

Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Taylorsville Police Department	65 Main Avenue Dr	No	No	828-632-2218	Included above	Included above

Taylorsville Airport provides only private aviation services. One runway is available which is approximately 2200 feet in length and approximately 80 feet wide. No cargo service is available, however in the event of a disaster helicopters and smaller fixed wings may be used for transportation of cargo.

Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
Taylorsville Airport	196 Airport Road	No	No (portable is available for fuel)	828-635-1799	N/A	N/A

American Red Cross occupies non government facilities. There are no facilities in Alexander County. Facilities for the American Red Cross, serving Alexander County are in Hickory.

Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Approximate Square footage	Replacement Value
ARC - serving Alexander County	1607 Highland Ave., Hickory	No	No	828-322-4151	N/A	N/A

Duke Energy distribution system There are no physical facilities in Alexander County such as a service center.

Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Total distribution miles	Number of Customers Served	Replacement Value
Duke Power Operations Center	250 9th St. Ln SE, Hickory	No	Yes	832-632-4611	431	7,620	\$3,500,000

Energy United Distribution system

Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Total distribution miles	Number of Customers Served	Replacement Value
Energy United	790 NC Highway 90 E	Yes	Yes	828-632-8144	718	6,176	\$6,500,000

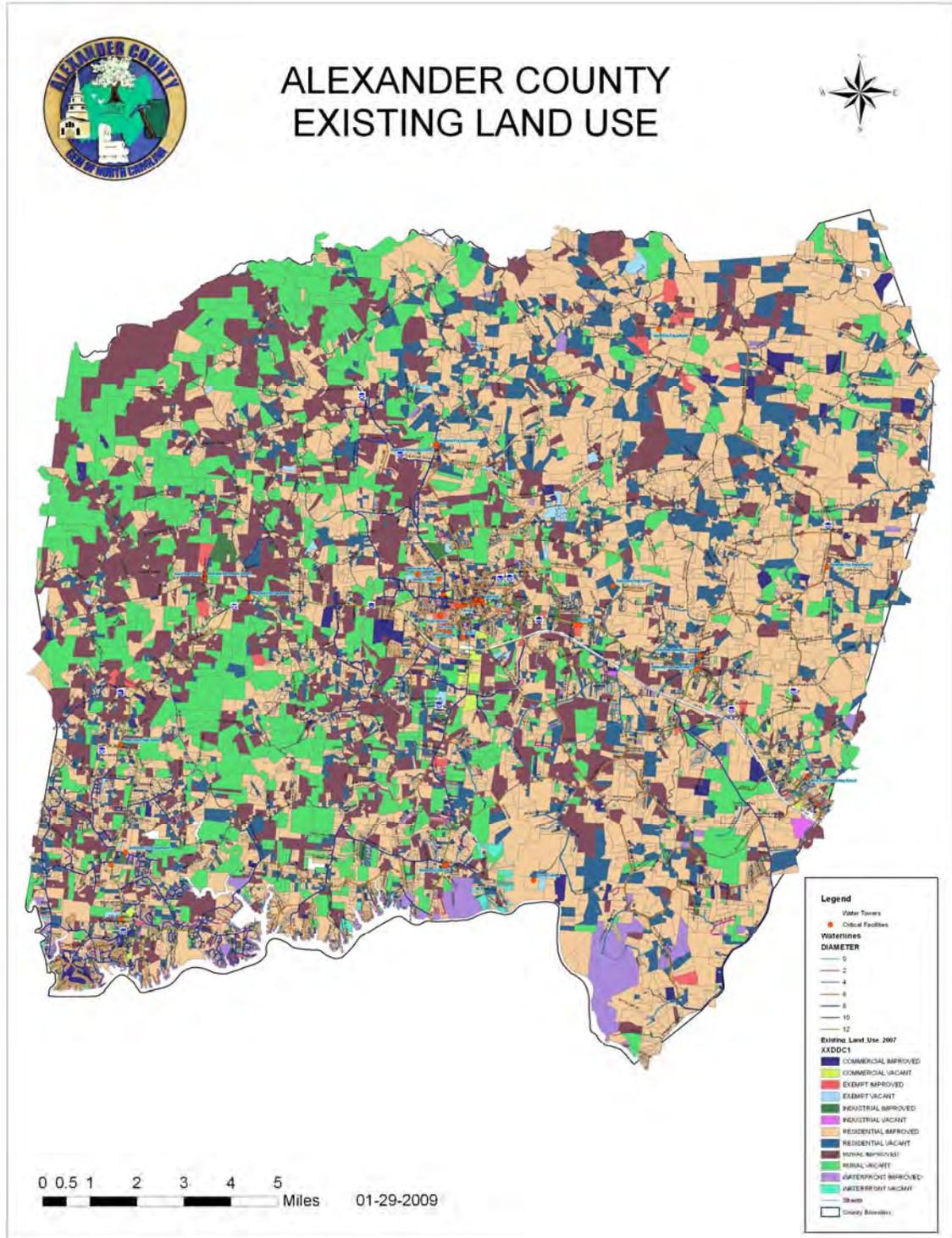
Energy United Water Distribution system

Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Total distribution miles (system)	Number of Customers Served (system)	Replacement Value
Energy United	790 NC Highway 90	No	Yes	828-632-	26	3,897	\$2,780,000

Hickory Water Distribution system in Alexander County. One primary source of water supply comes from the City of Hickory. Pump stations are provided at various locations as are storage tanks. Supply lines routing from the water source in Hickory are also located along the bridge spans on NC 127 and on NC 16 South. Equipment, service, supply and support are provided by contractual agreement with the City of Hickory.

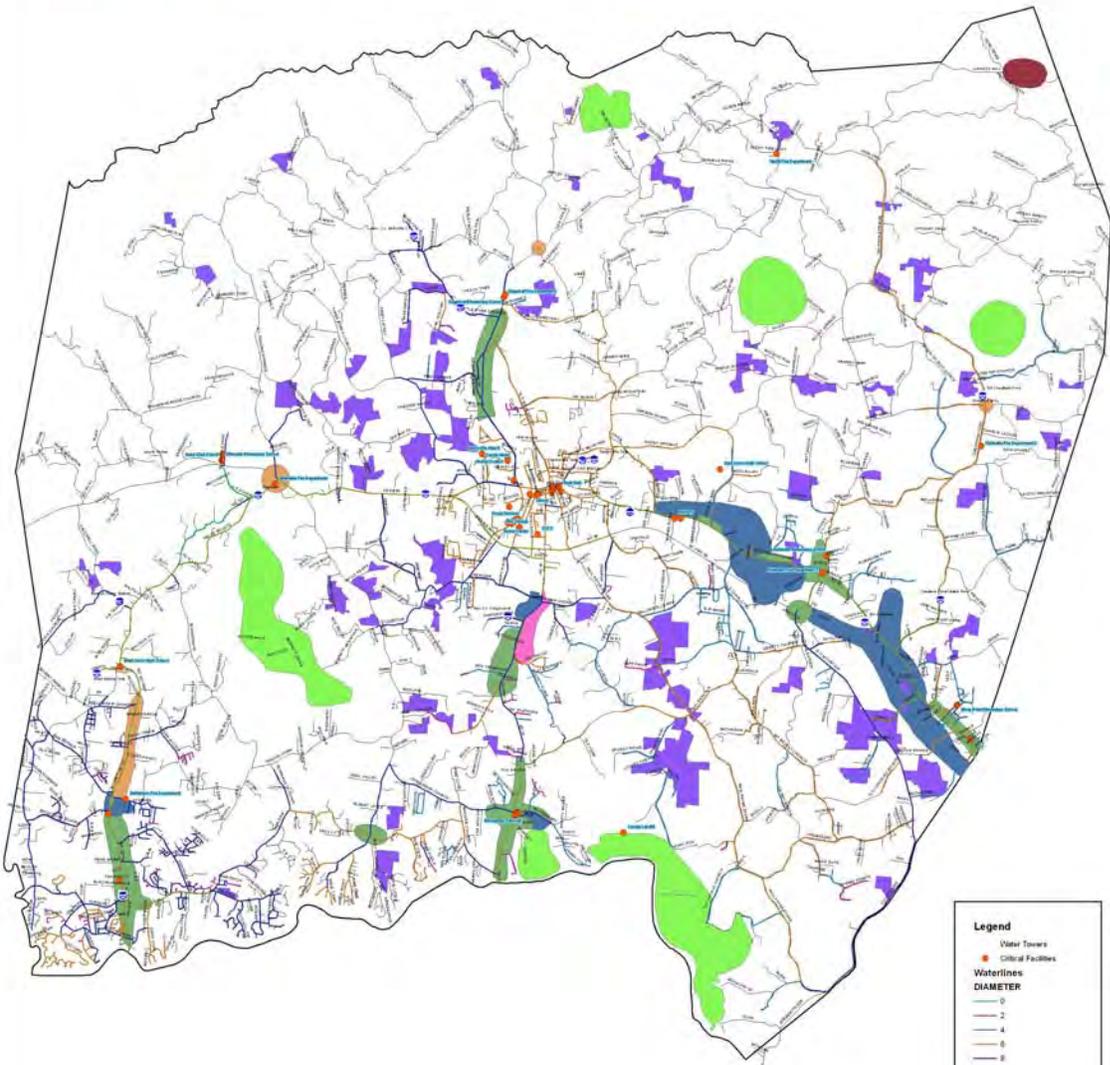
Agency	Address	Is the facility operated 24/7? (yes/no)	Does the facility have a generator (yes/no)	Facility main phone number	Total distribution miles (system)	Total Number of Customers Served (system)	Total Replacement Value
Hickory Water		Yes	Yes	828-323-7530	90	8565	\$24,187,000
Pump Station	NC 127	Yes	No	828-323-7530			\$500,000
Pump Station	Antioch Church Rd	Yes	No	828-323-7530			\$40,000
Pump Station	US 64	Yes	No	828-323-7530			\$400,000
Pump Station	Little River Church Rd.	Yes	No	828-323-7530			\$200,000
Storage tank	West Middle School	Yes	No	828-323-7530	40	4120	\$7,280,000
Storage tank	Ellendale Site	Yes	No	828-323-7530	20	1630	\$5,910,000
Storage tank	McDuffie Ct.	Yes	No	828-323-7530	10	250	\$3,619,000
Storage tank	Fairgrounds Road	Yes	No	828-323-7530	20	2565	\$6,238,000

Appendix Two - Hazard Maps





ALEXANDER COUNTY FUTURE LAND USE

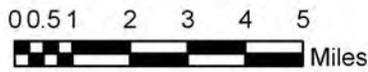
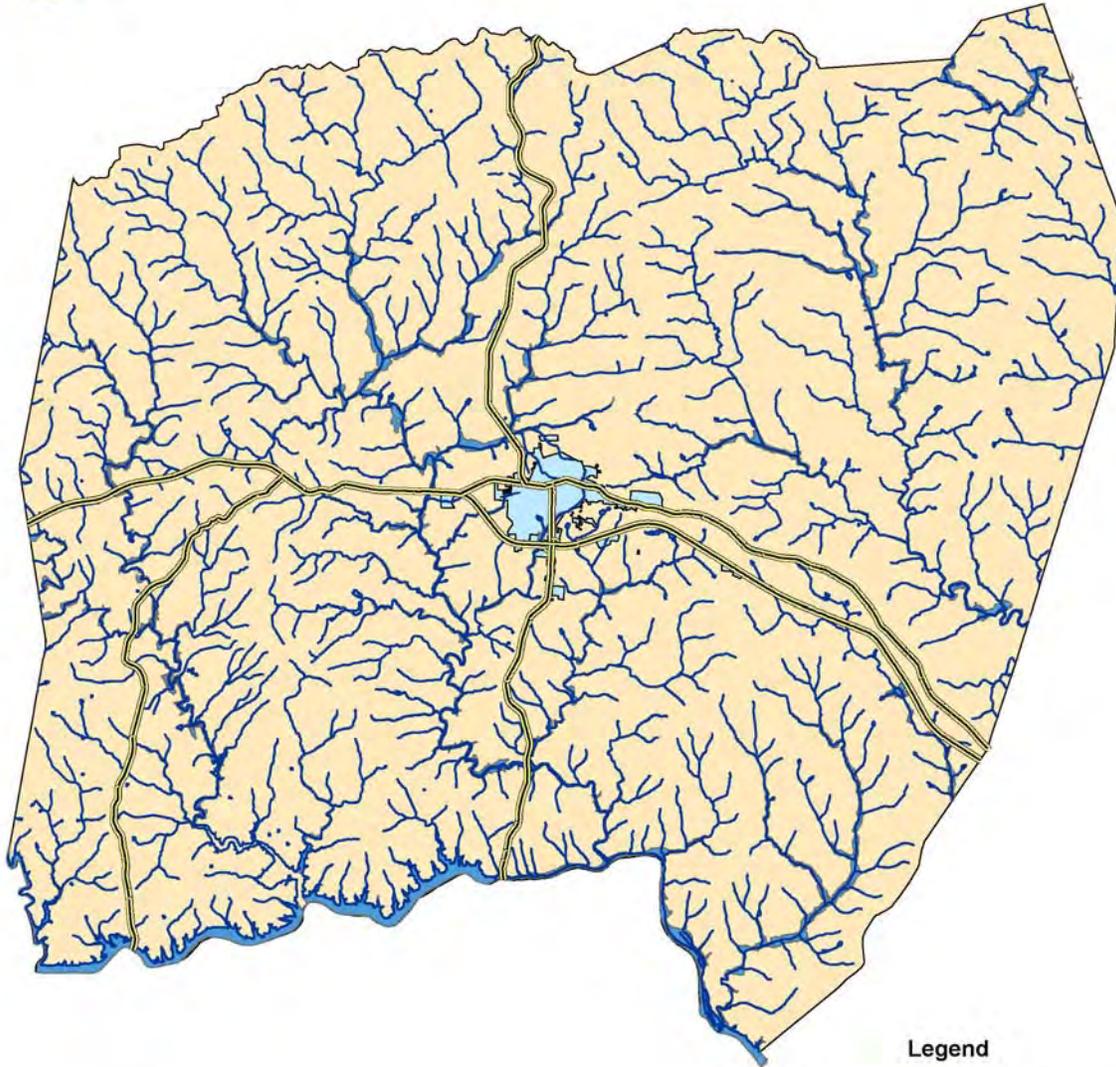


01-29-2009

- Legend**
- Water Towers
 - Central Facilities
 - Waterlines
 - DIAMETER
 - 2
 - 4
 - 6
 - 8
 - 10
 - 12
 - Future Land Use
 - Commercial
 - Farmstead Preservation
 - Historic Preservation
 - Industrial
 - Neighborhood Business
 - Office-Institutional
 - Open Space
 - Streets
 - County Boundary



ALEXANDER COUNTY 100 YEAR FLOODPLAIN



Legend

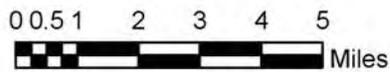
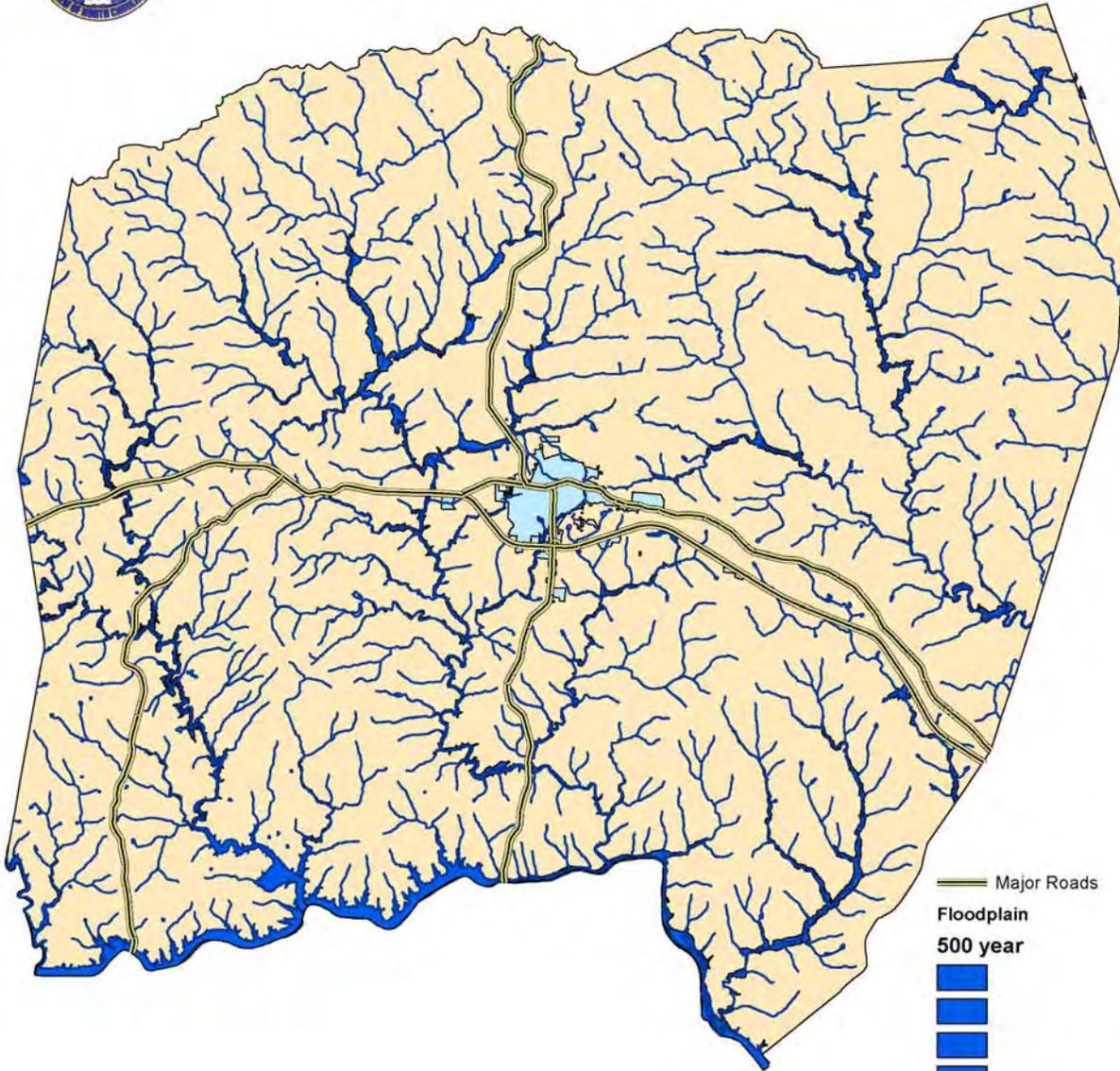
- Major Roads
- 100 year
- County Boundary
- Streams
- City Limits

1-29-09

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ALEXANDER COUNTY 500 YEAR FLOODPLAIN



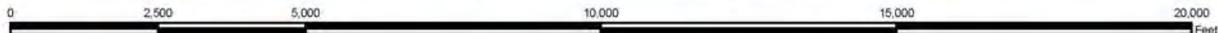
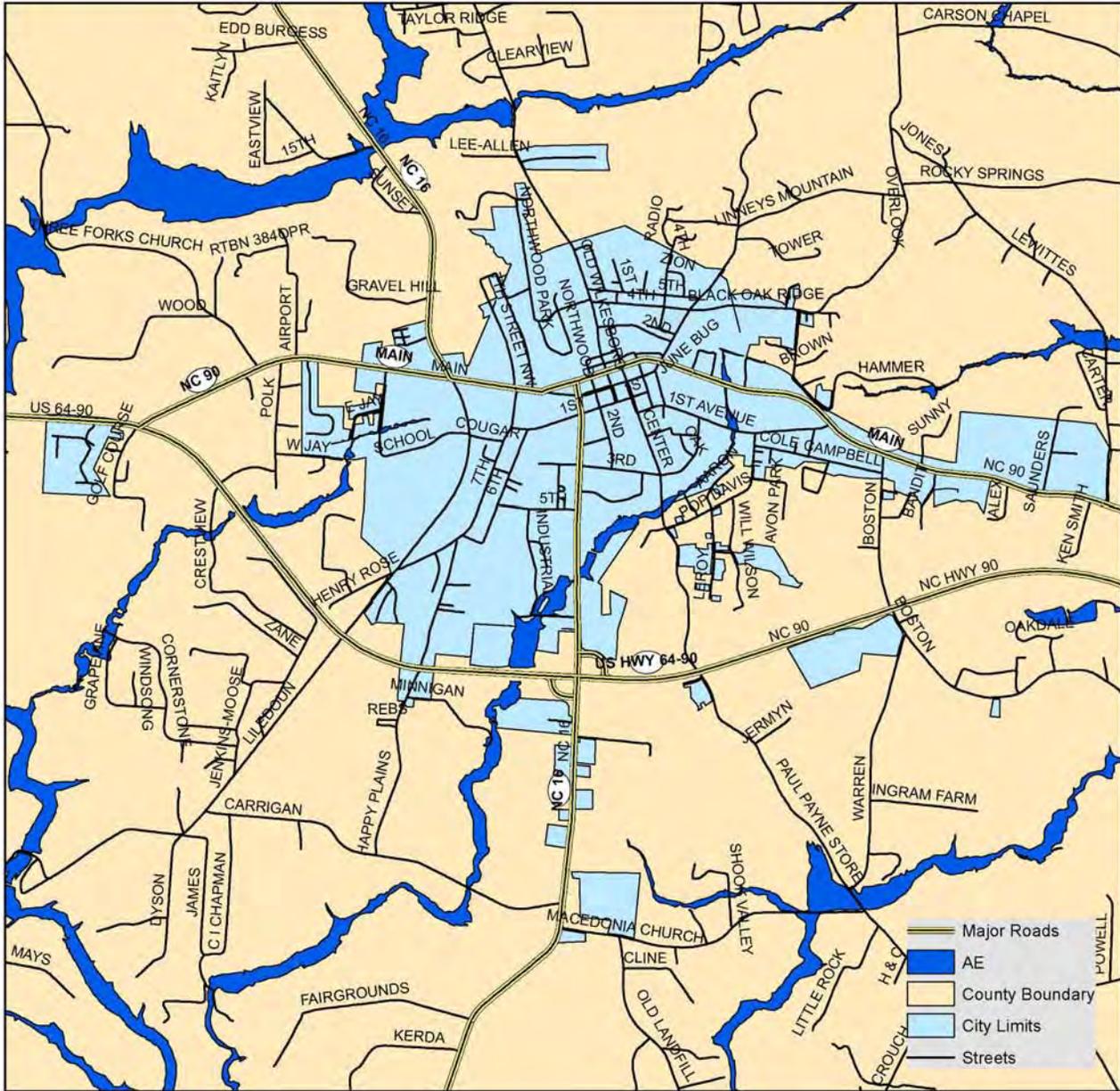
- Major Roads
- Floodplain
500 year
- County Boundary
- City Limits
- Streams

1-26-09

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CITY OF TAYLORSVILLE 100 YEAR FLOODPLAIN

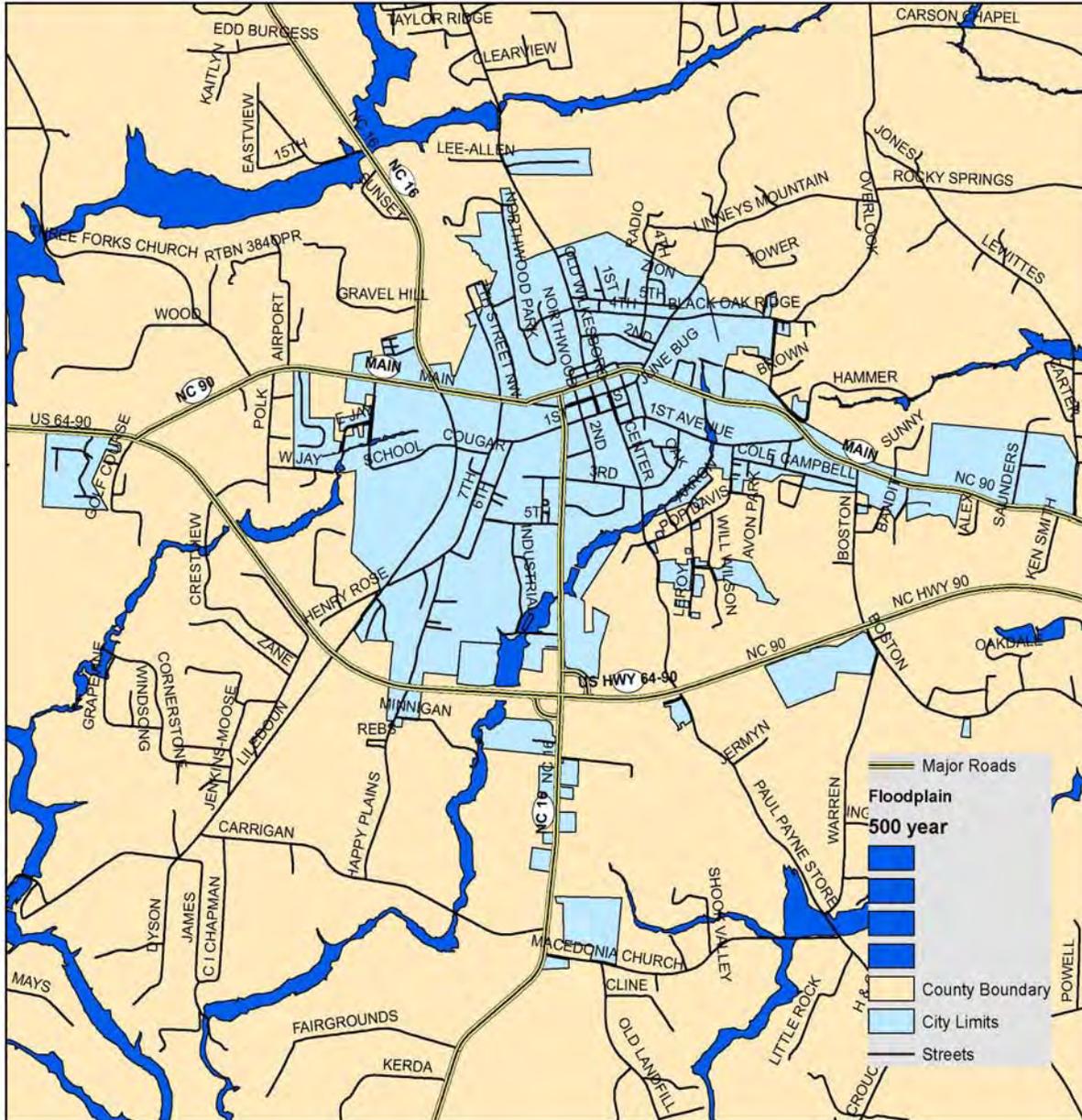


1-26-09

THIS MAP IS PREPARED FOR THE PURPOSES OF LOCAL GOVERNMENT PLANNING AND DEVELOPMENT AND IS NOT TO BE USED FOR ANY OTHER PURPOSES. THE USER OF THIS MAP ASSUMES ALL LIABILITY FOR ANY AND ALL DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF THIS MAP. THE USER OF THIS MAP ASSUMES ALL LIABILITY FOR ANY AND ALL DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF THIS MAP.



CITY OF TAYLORSVILLE 500 YEAR FLOODPLAIN

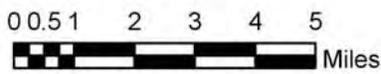
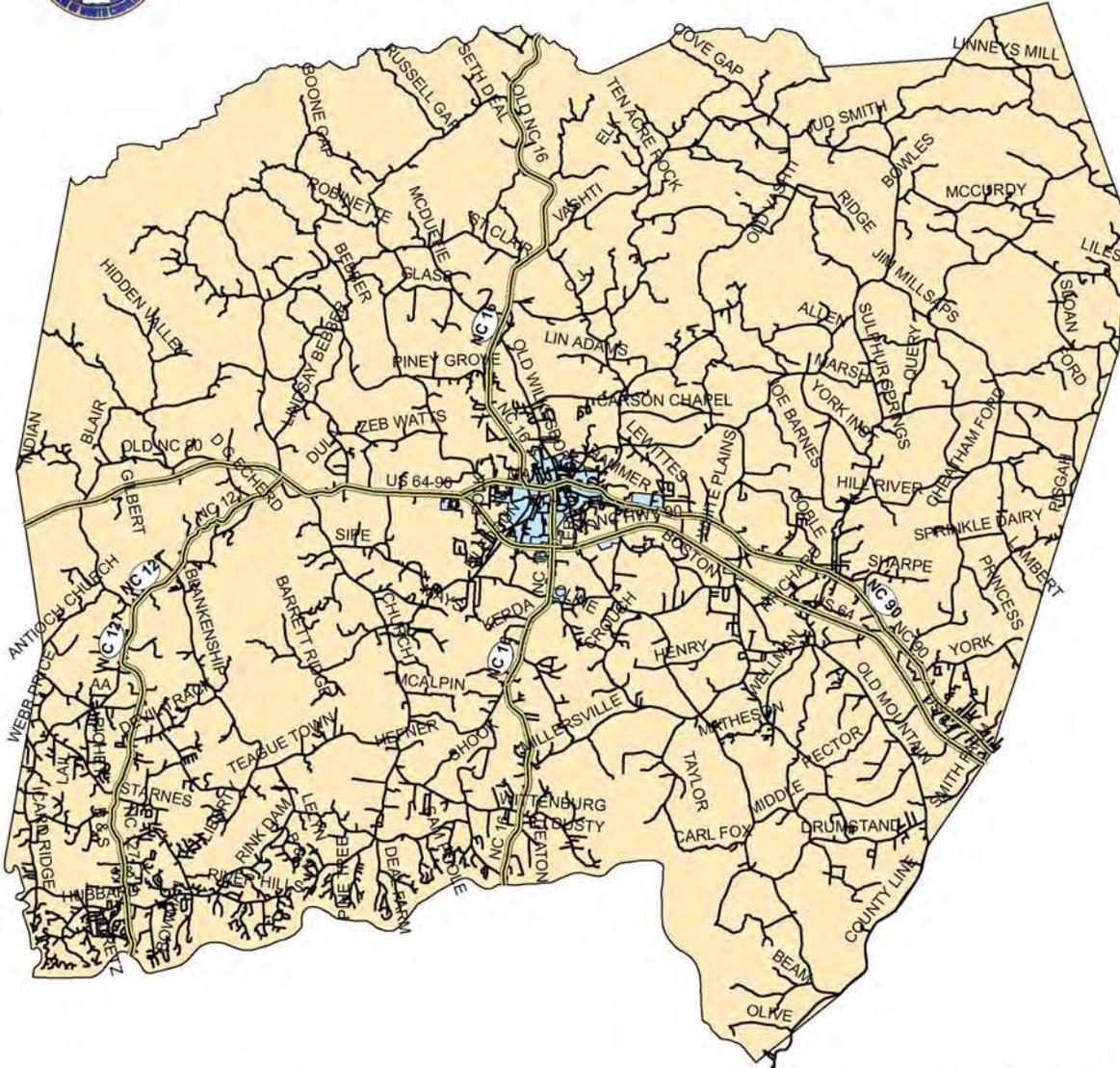


1-26-09

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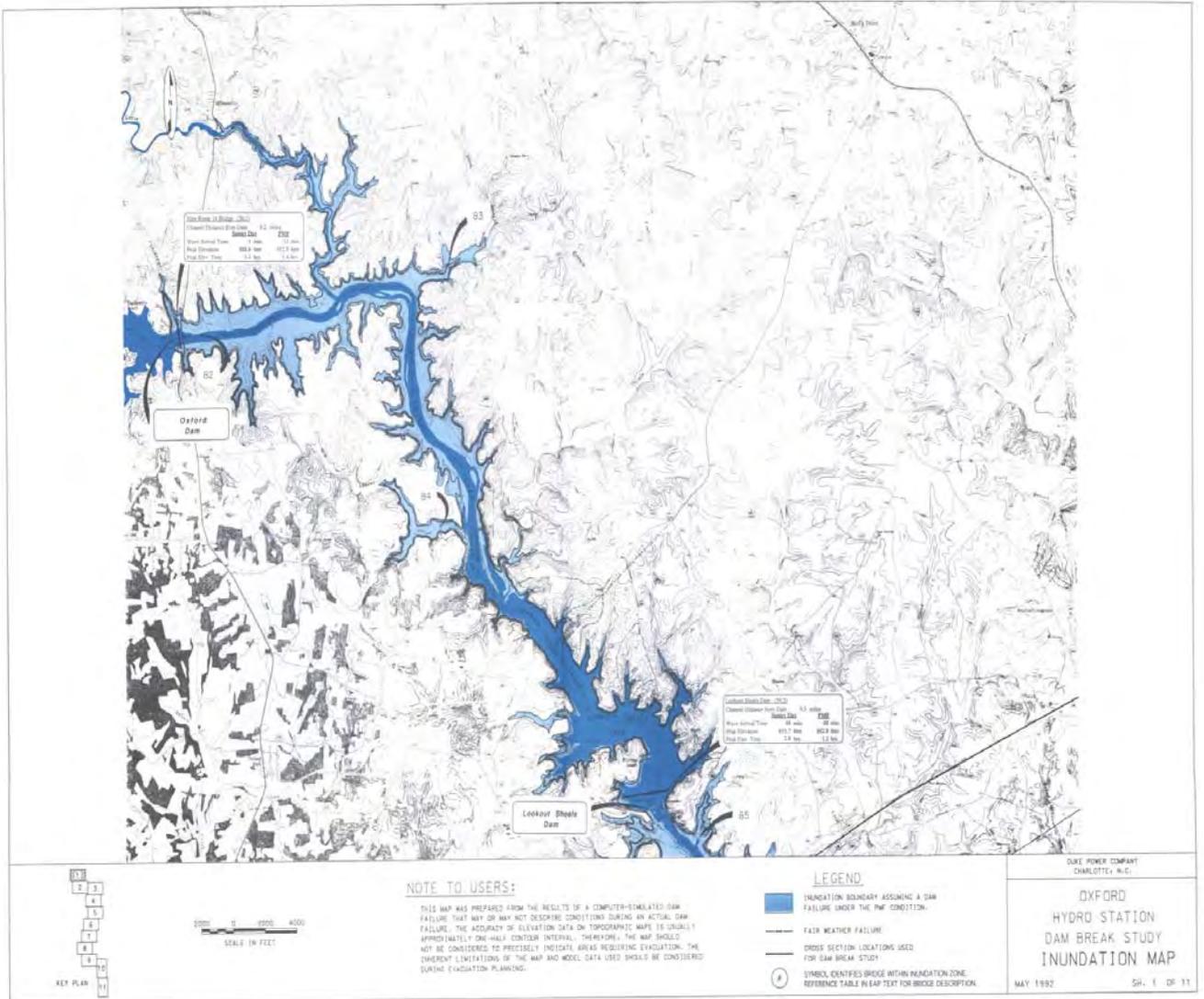
ALEXANDER COUNTY STREETS AND HIGHWAYS



- Major Roads
- County Boundary
- City Limits
- Streets

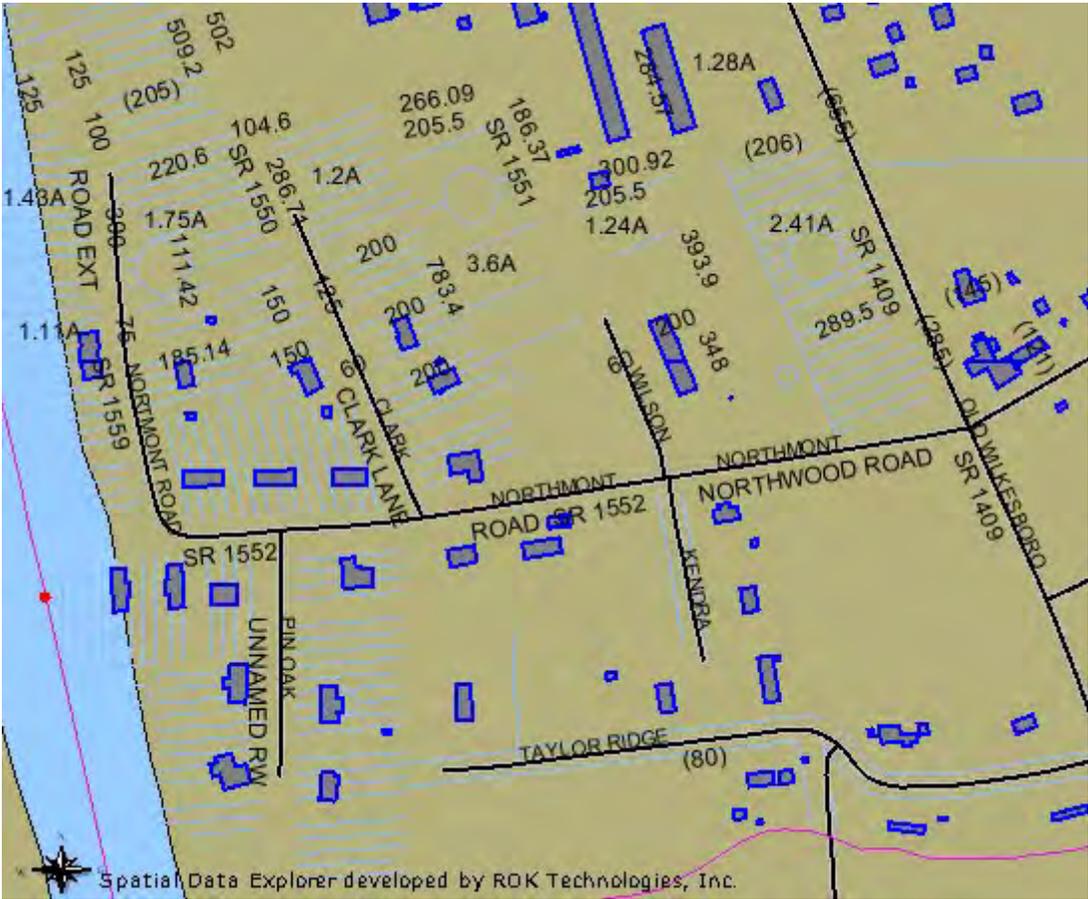
THIS MAP IS PROVIDED FOR THE CONSUMER AS A SERVICE. IT IS NOT A CONTRACT. THE USER ASSUMES ALL LIABILITY FOR ANY AND ALL DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF THIS MAP. THE USER AGREES TO HOLD THE PROVIDER HARMLESS FROM ANY AND ALL SUCH DAMAGES. THE PROVIDER SHALL NOT BE LIABLE FOR ANY AND ALL DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF THIS MAP. THE USER AGREES TO HOLD THE PROVIDER HARMLESS FROM ANY AND ALL SUCH DAMAGES.

Oxford Dam Inundation Map



Map of Special Concern Areas - Town of Taylorsville

Northmount



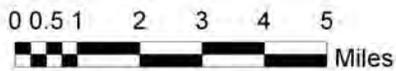
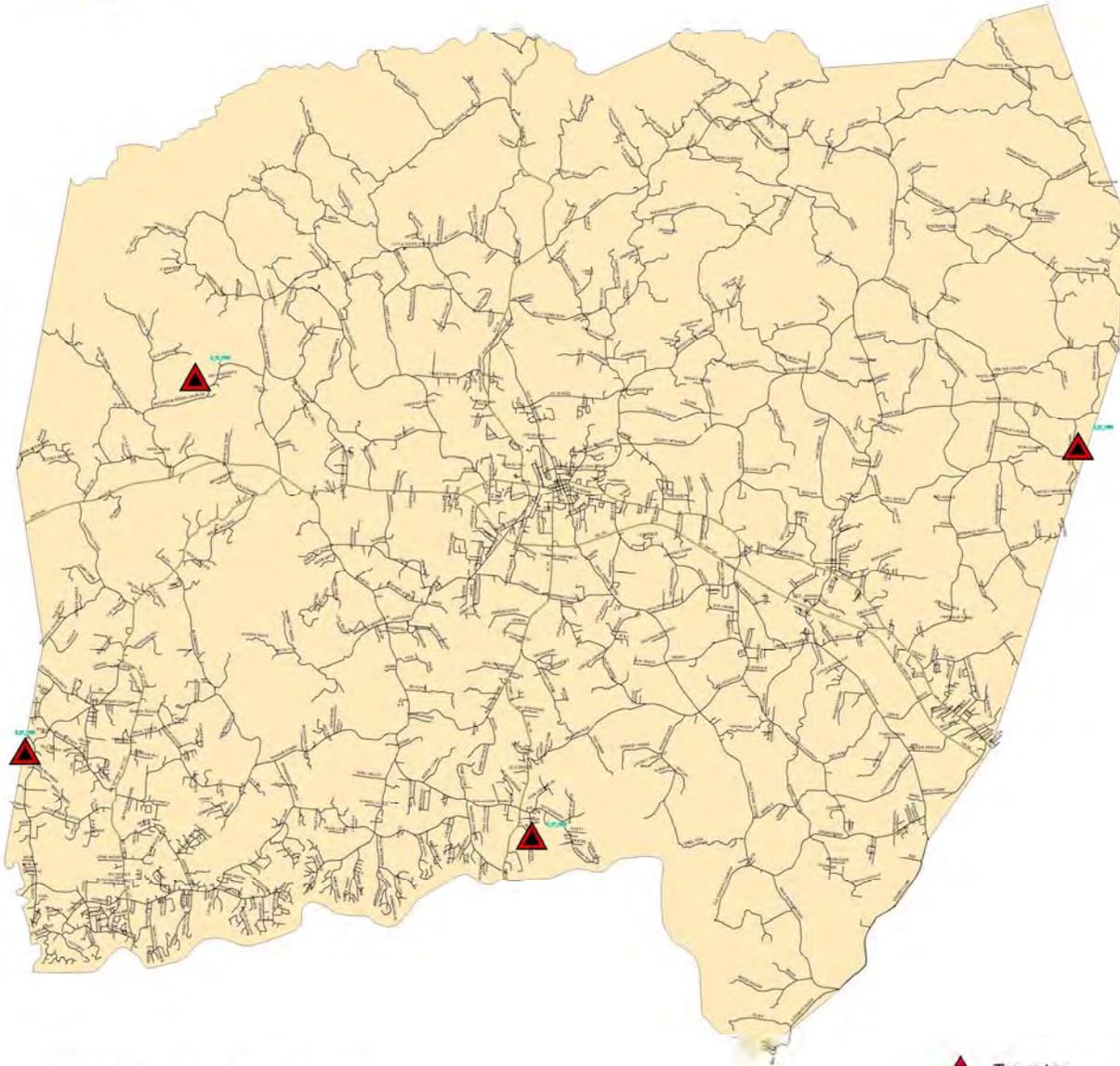
Map of Special Concern Areas - Town of Taylorsville

South Center Street





ALEXANDER COUNTY TORNADO MAP



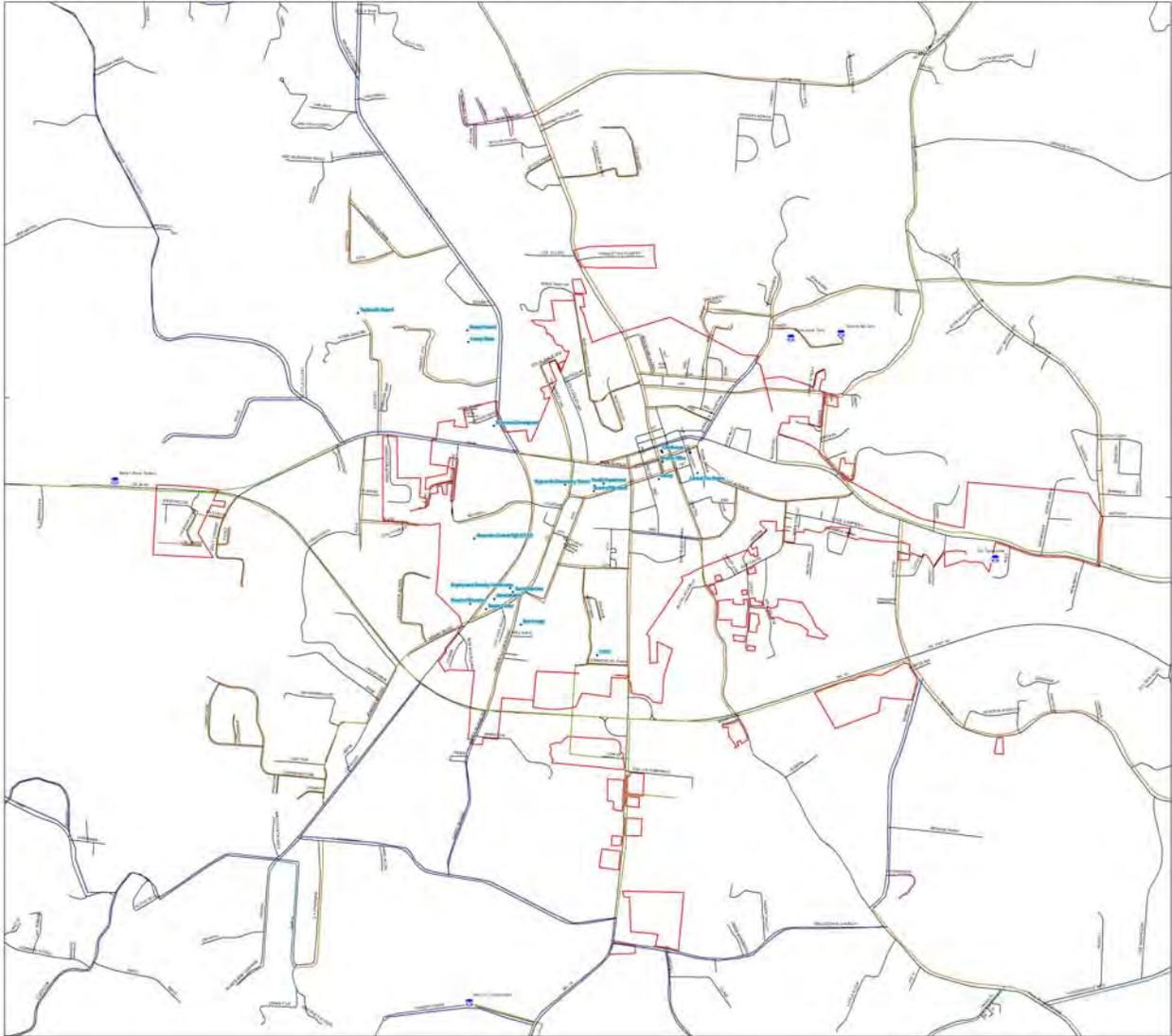
- Tornadoes
- Major Roads
- County Boundary

1-26-09

THIS MAP IS PREPARED FOR THE PURPOSE OF INFO. PROPERTY FROM THESE DATA IS NOT GUARANTEED AND IS PROVIDED AS-IS. THE COUNTY AND ITS EMPLOYEES MAKE NO WARRANTY, REPRESENTATION OR GUARANTEE OF ANY KIND FOR THE ACCURACY OF THIS MAP. THE COUNTY AND ITS EMPLOYEES SHALL NOT BE LIABLE FOR ANY DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF THIS MAP. THE COUNTY AND ITS EMPLOYEES SHALL NOT BE LIABLE FOR ANY DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF THIS MAP.



ALEXANDER COUNTY CRITICAL FACILITIES TOWN OF TAYLORSVILLE



Legend

- Water Towers
- Critical Facilities

Waterlines

DIAMETER

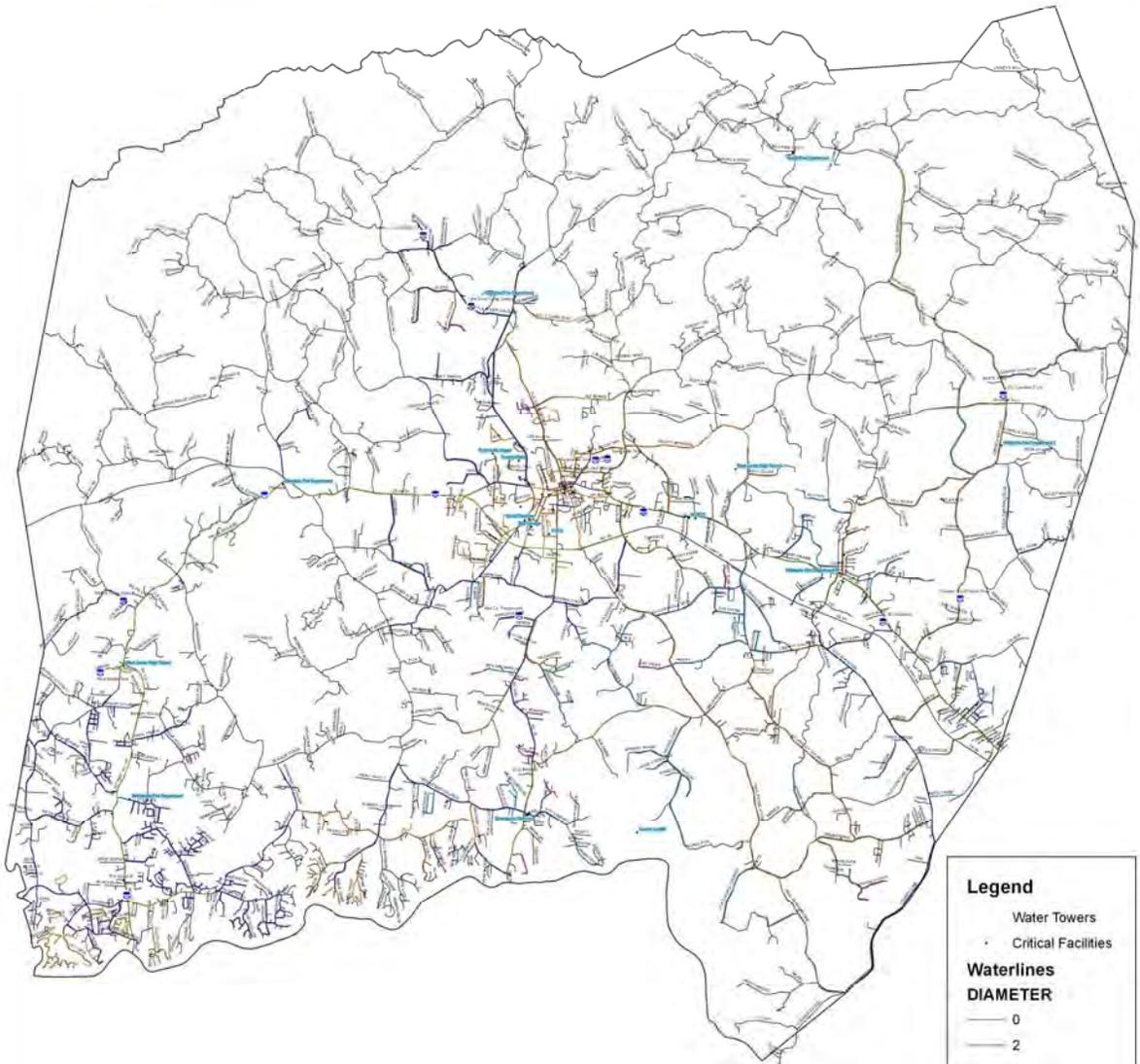
- 0
- 2
- 4
- 6
- 8
- 10
- 12

- Streets
- County Boundary

THIS MAP IS PREPARED FOR THE PURPOSE OF REAL PROPERTY FOUND WITHIN THIS JURISDICTION AND IS COMPILED FROM RECORDED DEEDS, PLATS, AND OTHER PUBLIC RECORDS AND DATA. USERS OF THIS MAP AND HEREBY WARRANT THAT THE ABOVE-SHOWN PUBLIC PROPERTY INFORMATION PROVIDED SHOULD BE CONSIDERED FOR VERIFICATION OF THE INFORMATION CONTAINED ON THIS MAP. THE COUNTY AND THE MAPS ARE COMPARED AGAINST THE ORIGINAL RECORDED PLATS FOR THE INFORMATION CONTAINED ON THIS MAP. THIS IS BASED ON THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM 1943 NORTH AMERICAN DATUM. (SPHERICAL FEET CONVERSION)



ALEXANDER COUNTY CRITICAL FACILITIES



01-29-2009

Legend

- Water Towers
- Critical Facilities

Waterlines
DIAMETER

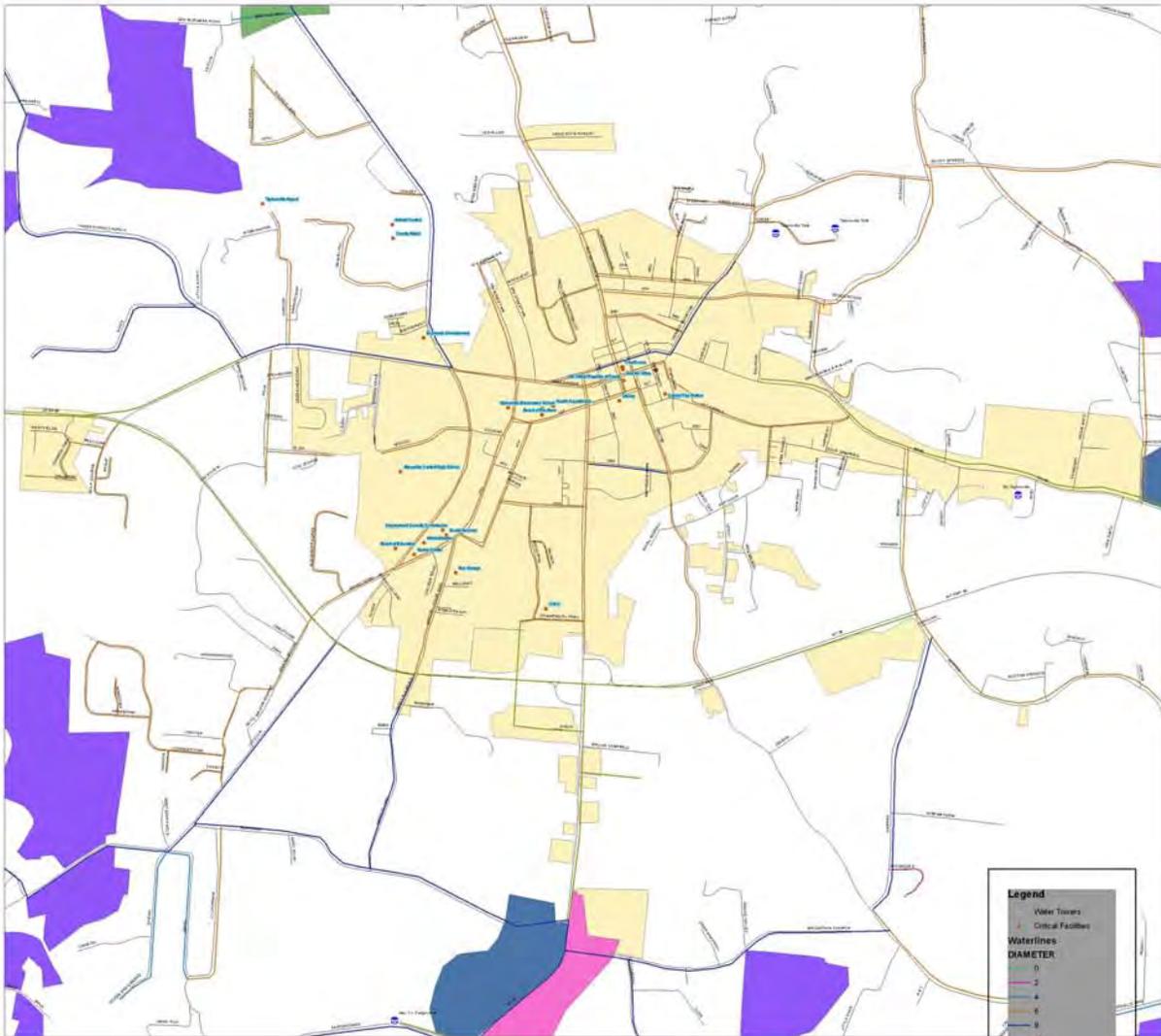
- 0
- 2
- 4
- 6
- 8
- 10
- 12

Streets

County Boundary



TAYLORSVILLE FUTURE LAND USE AND CRITICAL FACILITIES



Legend

- Water Towers
- Critical Facilities
- Waterlines
- DIAMETER
 - 2
 - 4
 - 6
 - 8
 - 10
 - 12
- Future Land Use
 - Commercial
 - Forested Preservation
 - Historic Preservation
 - Industrial
 - Neighborhood Business
 - Office-Institutional
 - Open Space
 - Drains
 - City Boundary

NOTED TO PROVIDE FOR THE QUANTITY OF WATER SERVICE FROM EXISTING AND PROPOSED MAINS TO INCLUDE FUTURE GROWTH. THESE VALUES ARE BASED ON CURRENT AND PROPOSED DEVELOPMENT PATTERNS AND ARE SUBJECT TO CHANGE. THE INFORMATION IS FOR PLANNING PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION OR OTHER PURPOSES. THE CITY OF TAYLORSVILLE ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON. WE WILL NOT BE HELD RESPONSIBLE FOR ANY DAMAGES, INCLUDING CONSEQUENTIAL DAMAGES, ARISING FROM THE USE OF THIS INFORMATION.

0 500,000 2,000 3,000 4,000 Feet

01-29-2009



ALEXANDER COUNTY LAND USE AND CRITICAL FACILITIES



Legend

- Water Towers
- Critical Facilities
- Waterlines
- DIAMETER
- 0
- 2
- 4
- 6
- 8
- 10
- 12
- Existing Land Use 2007
- XXDDC1
- COMMERCIAL IMPROVED
- COMMERCIAL VACANT
- EXEMPT IMPROVED
- EXEMPT VACANT
- INDUSTRIAL IMPROVED
- INDUSTRIAL VACANT
- RESIDENTIAL IMPROVED
- RESIDENTIAL VACANT
- RURAL IMPROVED
- RURAL VACANT
- WATERFRONT IMPROVED
- WATERFRONT VACANT
- Shades
- County Boundary

THIS MAP IS PROVIDED FOR THE INFORMATION OF ALL COUNTY RESIDENTS AND IS NOT TO BE USED FOR ANY OTHER PURPOSE. THE COUNTY ENGINEER HAS REVIEWED THIS MAP FOR TECHNICAL ACCURACY AND COMPLIANCE WITH THE ALEXANDER COUNTY ZONING ORDINANCES. THE COUNTY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE MAP AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION CONTAINED HEREIN. THE COUNTY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE MAP AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION CONTAINED HEREIN.



01-29-2009

Appendix Three - Taylorsville Ordinances

ZONING ORDINANCE TAYLORSVILLE, NORTH CAROLINA

PURPOSE

An ordinance regulating the uses of buildings, structures, and land for trade, industry, commerce, residence, recreation, public activities or other purposes; the size of yards, courts and other open spaces; the location, height, bulk, number of stories and size of buildings and other structures, the density and distribution of population; creating districts for said purposes and establishing the boundaries thereof; defining certain terms used herein; providing for the method of administration, amendment and enforcement; providing penalties for violations; providing for a Board of Adjustment and defining the duties and powers of said Board; repealing conflicting ordinances; and for other purposes.

ARTICLE I AUTHORITY AND ENACTMENT CLAUSE

The Town Board of Commissioners of the Town of Taylorsville, in pursuance of the authority granted by the General Statutes of North Carolina, particularly Article 14 of Chapter 160, hereby ordains and enacts into law the following Articles and Sections.

ARTICLE II SHORT TITLE

This Ordinance shall be known and may be cited as the Zoning Ordinance of the Town of Taylorsville, North Carolina.

ARTICLE III JURISDICTION

Section 151.01 Extraterritorial Jurisdiction

The provisions of this Ordinance shall be applicable not only within the corporate limits of the Town of Taylorsville, North Carolina, but also within the territory beyond such corporate limits, as now or hereafter fixed, for a distance of up to one (1) mile in all directions as shown on the Official Zoning Map.

ARTICLE IV PROVISIONS FOR OFFICIAL ZONING MAP

Section 151.03 Official Zoning Map

The districts established in Article VI of this Ordinance as shown on the Official Zoning Map, together with all explanatory matter thereon, are hereby adopted as part of this Ordinance.

Section 151.04 Identification of Official Zoning Map

The Official Zoning Map shall be identified by the signature of the Mayor, attested by the Town Clerk, and bear the seal of the Town of Taylorsville.

ARTICLE V
DEFINITIONS OF TERMS USED IN THIS ORDINANCE

For the purpose of interpreting this Ordinance, certain words and terms are herein defined. Unless otherwise expressly stated, the following words shall, for the purpose of this Ordinance, have the meaning herein indicated.

Section 151.10 Interpretation of Certain Terms and Words

- 151.10.1 Words used in the present tense include the future tense.
- 151.10.2 Words used in the singular number include the plural, and words used in the plural number include the singular.
- 151.10.3 The word "person" includes a firm, association, organization, partnership, corporation, trust and company, as well as an individual.

- 151.10.4 The word "lot" includes the word "plot" and "parcel."
- 151.10.5 The word "building" includes the word "structure."
- 151.10.6 The word "shall" is mandatory, not directory.
- 151.10.7 The words "used" or "occupied" as applied to any land or building shall be construed to include the words "intended, arranged or designed to be used or occupied."
- 151.10.8 The words "Map", "Zoning Map" or "Taylorsville Zoning Map" shall mean the "Official Zoning Map of the Town of Taylorsville, North Carolina."

Section 151.11 Definitions

- 151.11.1 **ACCESSORY USE, ACCESSORY STRUCTURE.** A use or structure customarily incidental and subordinate to the principal use or structure and located on the same lot with such principal use or structure. Manufactured homes and tractor-trailers are not considered accessory uses or structures.
- 151.11.2 **ALLEY.** A public thoroughfare, which affords only a secondary means of access to abutting property.
- 151.11.3 **APARTMENT.** A room or suite of one or more rooms in a multiple structure intended for use as a residence by a single family.
- 151.11.4 **AUTOMOTIVE REPAIR.** The repair, reconditioning, or rebuilding of motor vehicles or parts thereof, including collision service, painting, and steam cleaning of vehicles.
- 151.11.5 **AUTOMOTIVE SERVICE STATION (gas, filling station).** A building used for the sale and dispensing of fuel, lubricants, tires, batteries, accessories, and supplies, including installation and minor services customarily incidental thereto; facilities for washing and for chassis and gear lubrication of vehicles are permitted if enclosed in a building.
- 151.11.6 **AUTOMOTIVE WRECKING YARD.** The dismantling or wrecking of used motor vehicles or trailers, or the storage, sale, or dumping of dismantled or wrecked vehicles or their parts. The presence on any lot of four or more motor vehicles, which, for a period exceeding thirty (30) days, have not been capable of operating under their own power and from which parts have been or are to be removed for reuse or sale, shall constitute an automobile wrecking yard.
- 151.11.7 **BASEMENT.** A story partly underground but having at least one-half of its height above the average level of the adjoining ground. A basement shall be counted as a story for the purpose of height measurement if the vertical distance between the ceiling and the average level of the adjoining ground is more than five (5) feet.
- 151.11.8 **BED & BREAKFAST.** A building where, for compensation, lodging and/or meals are provided for not more than ten (10) persons. Duration of stay may not exceed three (3) weeks.

- 151.11.9 **BEST MANAGEMENT PRACTICES (BMP).** A structural or nonstructural management-based practice used singularly or in combination to reduce nonpoint source inputs to receiving waters in order to achieve water quality protection goals.
- 151.11.10 **BILLBOARD.** An off-premise sign owned by a person, corporation, or other entity that engages in the business of selling the advertising space on that sign.
- 151.11.11 **BOARDING HOUSE.** A building where, for compensation, lodging and/or meals are provided for not more than ten (10) persons.
- 151.11.12 **BUFFER STRIP.** A buffer strip shall consist of a planting strip at least ten (10) feet in width, composed of deciduous or evergreen trees or a mixture of each, spaced not more than ten (10) feet apart and not less than one (1) row of dense shrubs, spaced not more than five (5) feet apart and five (5) feet or more in height after one (1) growing season, and said strip shall be planted and maintained in a healthy, growing condition by the property owner. No such buffer strip shall, however, extend nearer to a street right-of-way line than the established building line of the adjoining lot.
- 151.11.13 **BUFFER, WATERSHED.** An area of natural or planted vegetation through which stormwater runoff flows in a diffuse manner so that the runoff does not become channelized and which provides for infiltration of the runoff and filtering of pollutants. The buffer is measured landward from the normal pool elevation of impounded waters and from the bank of each side of free-flowing streams, river, branches, etc.
- 151.11.14 **BUILDING.** An independent enclosed structure, anchored to a permanent foundation and having exterior or party walls and a roof designed for the support, shelter or enclosure of persons, animals, chattels or property of any kind. The connection of two buildings by means of an open porch, breezeway, passageway, carport or other such open structure, with or without a roof, shall not be deemed to make them one building.
- 151.11.15 **BUILDING, ACCESSORY.** A building subordinate to the main building on a lot and used for purposes customarily incidental to the main or principal building and located on the same lot therewith. Manufactured homes and tractor-trailers are not considered accessory buildings.
- 151.11.16 **BUILDING, HEIGHT.** The vertical distance measured from the average elevation of the finished lot grade at the front building line to the highest point of the roof beams adjacent to the front of the wall in case of a flat roof; to the average height of the gables in the case of a pitched roof; and to the deck line in the case of a mansard roof.
- 151.11.17 **BUILDING, PRINCIPAL.** A building in which is conducted the principal use of the lot on which said building is situated. In any residential district any structure containing a dwelling unit shall be defined to be the principal building on the plot on which the same is situated.
- 151.11.18 **BUILDING, SETBACK LINE.** A line establishing the minimum allowable distance between the nearest portion of any building, excluding the outermost five (5) feet of any overhang, uncovered porches, steps, gutters, and similar fixtures, and the related front, rear, or side property

or right-of-way line, whichever is closest to the building.

- 151.11.19 **BUILT-UPON AREA.** That portion of a development project that is covered by impervious or partially impervious cover including buildings, pavement, gravel, recreation facilities, etc., excluding wooden slatted decks and the water area of a swimming pool.
- 151.11.20 **BUSINESS, CBD.** A business, office and mixed-use district that provides a full range of services and a variety of uses in a downtown atmosphere.
- 151.11.20 **BUSINESS, CONVENIENCE.** Commercial establishments designed to attract and to be dependent upon large volumes of stop-and-go traffic, including, but not limited to, all types of convenience stores and fast food restaurants, with or without drive-in windows.
- 151.11.21 **BUSINESS, GENERAL.** Commercial establishments that, in addition to serving day-to-day commercial needs of a community, also supply the more durable and permanent needs of a whole community, including supermarkets, department stores, discount stores, variety stores, hardware and garden supply stores, apparel and footwear stores, florists, gift shops, jewelry stores, book and stationery stores, specialty shops, sporting goods stores, furniture and home furnishing stores, automotive supply stores, and appliance stores.
- 151.11.22 **BUSINESS, OFFICE-TYPE.** Quasi-commercial uses that generally accommodate occupations such as administrative, executive, legal, accounting, writing, clerical, and drafting occupations, and including offices of a charitable, philanthropic, religious, or educational nature.
- 151.11.23 **BUSINESS, NEIGHBORHOOD.** Small scale unified or independent commercial establishments with a per-unit floor area no more than three thousand (3000) square feet that generally serve the day-to-day commercial needs of a residential neighborhood, including but not limited to: small drugstores, tobacco shops, newsstands, bakeries, confectioneries, delicatessens, food markets, beauty salons, and child daycare facilities.
- 151.11.24 **BUSINESS, WHOLESALE.** Commercial establishments that generally sell commodities in large quantities or by the price to retailers, jobbers, other wholesale establishments, or manufacturing establishments, basically for use in the fabrication of a product or for use by a business service.
- 151.11.25 **CHURCH.** A structure in which persons regularly assemble for religious worship and which is maintained by a religious body organized to sustain public worship.
- 151.11.26 **CLINIC.** An organization of professional specialists such as physicians or dentists, who have their offices in a common building. A clinic may include laboratory facilities in conjunction with normal clinic services.
- 151.11.27 **CLUSTER DEVELOPMENT.** A development design technique that allows the subdivision of land into not more than the number of lots permissible in a

conventional subdivision of the same property in the same zone, but where the size of individual lots may be reduced in order to gain land to be used for recreation, common open space, or the preservation of historically or environmentally sensitive features.

- 151.11.28 **COMPREHENSIVE PLAN.** A plan or any portion thereof, adopted by the Taylorsville Planning Board and Town Board of Commissioners, establishing goals, objectives and policies designed to manage the quantity, type, cost, location, timing, and quality of development and redevelopment in the corporate limits and ETJ of Taylorsville.
- 151.11.29 **CONDITIONAL USE PERMIT.** A permit, granted by the Board of Adjustment after said Board holds a public hearing, which authorizes a use which would not generally be appropriate throughout a particular zoning district, but which, if controlled as to number, size, location, or relation to the neighborhood, would promote the public health, safety, and general welfare.
- 151.11.30 **CUSTODIAL CARE FACILITY.** A facility providing custodial care and treatment in a protective living environment for persons residing voluntarily or by court placement, including, without limitation, correctional and post-correctional facilities, juvenile detention facilities, and temporary detention facilities.
- 151.11.31 **DAY NURSERY.** An agency, organization, or individual providing daytime care of six or more children not related by blood or marriage to, or not the legal wards or foster children of the attendant adult.
- 151.11.32 **DEVELOPMENT.** The use or occupancy of any land or structure, or the construction, erection, alteration, or moving of any structure; any land disturbing activity which adds to or changes the amount of impervious or partially impervious cover on a land area or which otherwise decreases the infiltration of precipitation into the soil.
- 151.11.33 **DWELLING, MULTIPLE OR MULTI-FAMILY.** A building or portion thereof, containing three (3) or more dwelling units designed for occupancy by three (3) or more families living independently of each other.
- 151.11.34 **DWELLING, SINGLE-FAMILY.** A building arranged or designed to be occupied by one family, the structure having only one dwelling unit.
- 151.11.35 **DWELLING, TWO-FAMILY OR DUPLEX.** A building containing two (2) dwelling units designed exclusively for occupancy by two (2) families independent of each other, such as a duplex building unit.
- 151.11.36 **DWELLING UNIT.** A building, or portion thereof, designed and arranged, and used for living quarters for one (1) or more persons living as a single housekeeping unit with cooking facilities, but not including units in hotels or other structures designed for transient residence.
- 151.11.37 **EASEMENT.** The right of a person, government agency, or public utility company to use public or private land owned by another for a specific purpose.
- 151.11.38 **EXISTING DEVELOPMENT.** Those projects that are built or those

projects that at a minimum have established a vested right under North Carolina zoning law as of the effective date of this Ordinance based on at least one of the following criteria:

- (1) having expended substantial resources (time, labor, money) based on a good faith reliance upon having received a valid local government approval to proceed with the project, or
- (2) having an outstanding valid building permit as authorized by the General Statutes (G.S. 153A-344.1 and G.S. 160A-385.1), or
- (3) having an approved site specific or phased development plan as authorized by the General Statutes (G.S. 153A-344.1 and G.S. 160A-385.1).

- 151.11.39 FAMILY. An individual or two (2) or more persons related by blood, marriage, or adoption living together in a dwelling unit; or a group of not more than six (6) persons, one (1) or more of whom is not related by blood, marriage, or adoption to the others.
- 151.11.40 FLOOR AREA, GROSS. The sum of enclosed areas on all floors of a building or buildings measured from the outside faces of exterior walls, including halls, lobbies, arcades, stairways, elevator shafts, enclosed porches and balconies, and any below-grade floor areas used for access and storage. Not countable as floor area are open terraces, open patios, open atriums, open balconies, open carport garages, and breezeways.
- 151.11.41 FLOOR AREA, RATIO. Determined by dividing the gross floor area of all buildings on a lot by the area of that lot.
- 151.11.42 GROUP MULTI-FAMILY DEVELOPMENT. A type of combined multi-family development of two (2) or more multi-family buildings or duplexes, established on a single development tract, having unified design of buildings and coordinated organization of open space and service areas, and developed in accordance with a site plan.
- 151.11.43 GROUP COMMERCIAL AND INDUSTRIAL DEVELOPMENT. A type of combined commercial or industrial development of two (2) or more commercial buildings or two (2) or more industrial buildings established on a single development tract, having unified design of buildings and coordinated organization of open space and service areas, and developed in accordance with a site plan.
- 151.11.44 HAZARDOUS MATERIAL. Any substance listed as such in: SARA Section 302, Extremely Hazardous Substances, CERCLA Hazardous Substances, or Section 311 of CWA (oil and hazardous substances).
- 151.11.45 HOME OCCUPATION. An occupation conducted as an accessory use of a dwelling unit, provided that:
- (a) The home occupation shall not generate traffic volumes or parking needs greater than would normally be expected in a residential neighborhood.
 - (b) No external evidence of the conduct of the home occupation shall be visible, other than a sign as permitted in Article X of this Ordinance.

- (c) No person other than members of the resident family shall be engaged in such activity; except that not more than one (1) assistant may be employed by the following occupations: dentist, lawyer, physician, chiropractor, and osteopath.
- (d) The on-premises sale and delivery of goods which are not the products of the home occupation are prohibited.
- (e) No equipment or process shall be employed that will cause noise, vibration, odor, glare, or electrical or communication interference detectable to the normal senses from the lot in the case of detached dwelling units, or outside the dwelling unit in the case of attached dwelling units.
- (f) The use of the dwelling unit for the home occupation shall be clearly incidental and subordinate to its use for residential purposes, and not more than twenty-five percent (25%) of the floor area of the dwelling unit shall be used in the conduct of the home occupation.

- 151.11.46 INDUSTRIAL DEVELOPMENT. Any non-residential development that requires an NPDES permit for an industrial discharge and/or requires the use or storage of any hazardous material for the purpose of manufacturing, assembling, finishing, cleaning or developing any product.
- 151.11.47 JUNKED VEHICLE. Any wrecked or non-operable automobile, truck, or other vehicle which does not bear a current license plate and current State inspection sticker.
- 151.11.48 JUNKYARD. The use of any unenclosed portion of a lot or tract for the storage or abandonment of junk, including scrap metals and other scrap material, or dismantling or abandonment of automobiles or other vehicles or machinery, but not including the temporary storage of damaged vehicles in connection with the operation of a repair garage. The deposit or the storage on a lot not in use as a repair garage of one or more wrecked or broken down vehicles titled in the name of the property owner for more than ninety (90) days shall also be deemed a junkyard.
- 151.11.49 KENNEL. Any premises wherein any person(s) engages in the business of boarding, breeding, buying, letting for hire, training for a fee or selling domestic pets.
- 151.11.50 LOADING, OFF-STREET. Space located outside of any street right-of-way or easement and designed to accommodate the temporary parking of vehicles used for bulk pickups and deliveries.
- 151.11.51 LOT. A parcel of land occupied or capable of being occupied by a building or group of buildings devoted to a common use, together with the customary accessories and open spaces belonging to the same.
- 151.11.52 LOT, CORNER. A lot that occupies the interior angle at the intersection of two street lines which make an angle of more than 45 degrees and less than 135 degrees with each other. The street line forming the least frontage shall be deemed the front of the lot except where the two street lines are equal; in which case the owner shall be required to specify which is the front when requesting a zoning permit.
- 151.11.53 LOT, COVERAGE. The percentage of a lot which may be covered with

buildings or structures (excluding walks, drives, and other similar uses) and recreational facilities which are accessory to a permitted use (such as swimming pools). Properties within the critical or protected areas as defined by the Water Supply Watershed Protection Act shall include walks, drives, and all other impervious and graveled surfaces in the total lot coverage.

- 151.11.54 LOT, DEPTH. The mean horizontal distance between front and rear lot lines.
- 151.11.55 LOT, WIDTH. The distance between side lot lines measured at the building line.
- 151.11.56 LOT OF RECORD. A lot which is part of a subdivision, a plat of which has been recorded in the Office of the Register of Deeds of Alexander County, or a lot described by metes and bounds, the description of which has been so recorded.
- 151.11.57 MAJOR WATERSHED VARIANCE. A variance from the minimum statewide water supply watershed protection criteria that results in any one or more of the following:
- (1) any variation in the design, maintenance or operation requirements of a wet detention pond or other approved stormwater system;
 - (2) the relaxation, by a factor greater than ten percent (10%), of any management requirement under the low density option;
 - (3) the relaxation, by a factor greater than five percent (5%), of any buffer or built-upon area requirement under the high density option.
- 151.11.58 MANUFACTURED HOME. A manufactured housing unit designed for transportation on its own chassis and placement on a temporary or semi-permanent foundation having a measurement of forty (40) feet or more in length and eight (8) feet or more in width. It shall also comply with the National Mobile Home Construction and Safety Standards adopted by the U.S. Department of Housing and Urban Development. This definition shall also include the term "mobile home."
- 151.11.59 MANUFACTURED HOME PARK. Land used or intended to be used, leased or rented for occupancy by two (2) or more manufactured homes which are mounted on wheels, anchored in place by a foundation or other stationary support, to be used for living purposes and accompanied by automobile parking spaces and incidental utility structures and facilities required and provided in connection therewith. This definition shall not include sales lots on which unoccupied manufactured homes are parked for purposes of inspection and/or sale.
- 151.11.60 MINOR WATERSHED VARIANCE. A variance that does not qualify as a major variance from the minimum statewide watershed protection rules that results in a relaxation by a factor up to five (5) percent of any buffer, density, or built-upon requirements under the high density option; or that results in a relaxation, by a factor up to ten (10) percent, of any management requirement under the low density option.
- 151.11.61 MIXED-USE DEVELOPMENT. The development of a building or structure with a variety of complementary and integrated uses, such as, but not limited to,

residential, office, manufacturing, retail, public, or entertainment, in a compact urban form.

- 151.11.62 MODULAR HOME. A dwelling unit constructed in accordance with the standards set forth in the North Carolina State Building Code and composed of components substantially assembled in a manufacturing plant and transported to the building site for final assembly on a permanent foundation.
- 151.11.63 NON-CONFORMING LOT OF RECORD. A lot described by a plat or deed that was recorded prior to and lawfully existed prior to the adoption of this Ordinance, but which does not meet the limitations on size, depth, width, street frontage, or other development requirements of the statewide watershed protection rules for the district in which such lot is located.
- 151.11.64 NON-CONFORMING USE. A building or land lawfully occupied by a use that does not conform with use regulations of the district in which it is situated.
- 151.11.65 NON-RESIDENTIAL DEVELOPMENT. All development other than residential development, agriculture and silviculture.
- 151.11.66 NURSING HOME. A home for the aged or ill persons in which three (3) or more persons not of the same immediate family are provided with food, shelter and care for compensation; but not including hospitals, clinics, or similar institutions devoted primarily to diagnosis and treatment.
- 151.11.67 OFFICE. A building or portion thereof wherein services are performed involving predominately administrative, professional, or clerical operations.
- 151.11.68 OPEN SPACE. Any front, side, or rear yards, courts, or usable open space provided around a building in order to meet the requirements of this Ordinance.
- 151.11.69 OPEN STORAGE. The storing, depositing or accumulating (for more than twenty-four (24) hours) of materials, goods, equipment, etc., for any use or sale, within any uncovered area, whether enclosed by a fence, etc., or not.
- 151.11.70 PARKING LOT. Any designated area designed for temporary accommodation of motor vehicles of the motoring public in normal operating condition, for a fee or as a service.
- 151.11.71 PARKING SPACE. An area of appropriate dimensions, exclusive of drives, of not less than nine (9) feet by eighteen (18) feet to be used exclusively as a temporary storage space for private motor vehicles.
- 151.11.72 PLANNED UNIT DEVELOPMENT (PUD). A form of development characterized by a unified site design for a number of housing units, clustering of buildings and providing common space, density increase, and a mix of building types and uses. It permits the planning of a project and a calculation of densities over the entire development rather than on an individual lot-by-lot basis. The site plan must include two or more principal buildings. Such development shall be based on a plan, which allows for flexibility of design most available under normal district requirements.

- 151.11.73 PROTECTED AREA (PA) or BALANCE OF THE WATERSHED. Area adjoining and upstream of the critical area of WS-IV watersheds. The boundaries of the protected area are defined as within five miles upstream of and draining to a water supply reservoir, or to the ridge line of the watershed, whichever comes first; or within ten miles of and draining to a water intake in a stream or river, or to the ridgeline of the watershed, whichever comes first.
- 151.11.74 RESIDENTIAL DEVELOPMENT. Buildings for residence such as attached and detached single-family dwellings, apartment complexes, condominiums, townhouses, cottages, etc., and their associated outbuildings such as garages, storage buildings, gazebos, etc.
- 151.11.75 RESIDENTIAL CARE FACILITY. A health facility where persons are housed and furnished with meals and continuing nursing care for compensation.
- 151.11.76 SIGN. A name, identification, image, description, display, or illustration which is affixed to, painted or represented directly or indirectly upon a building, structure or piece of land, and which directs attention to an object, product, place, activity, facility, service, event, attraction, person, institution, organization, or business, or which draws attention to a cause or advocates or proclaims a political, religious, or other noncommercial message, and which is visible from any street, right-of-way, sidewalk, alley, park, or other public property.
- (a) Accessory Sign. A sign which is accessory to the principal use of the premises.
 - (b) Non-accessory Sign. A sign which is not accessory to the principal use of the premises.
 - (c) Roof Sign. A sign which is erected, constructed, or maintained upon, and projects above or beyond the roof or parapet.
 - (d) Freestanding or Ground Sign. A sign which is supported by one or more uprights, braces, or pylons located in or upon the ground or supported by something requiring location in or on the ground, including billboards.
 - (e) Projecting Sign. A sign which is affixed to any building, structure, or part thereof, that extends beyond the building wall or parts thereof by no more than three (3) feet from the main building; such signs shall not hang any lower than eight (8) feet from the ground below, measured from the bottom of the sign.
 - (f) Wall Sign. Any sign attached to or placed flat against the exterior wall or surface of any building, no portion of which projects more than twelve (12) inches from the wall, but which may or may not project above the roof or parapet.
 - (g) Sign Area. The surface area of a sign shall be computed as including the entire area within a regular geometric form or combinations of regular geometric forms comprising all of the available display area of the sign and including all the elements of the matter displayed. Only one side of a double-faced sign shall be considered in computing total sign area. Frames and structural members not bearing advertising matter shall not be included in computation of the surface area.
 - (h) Sign Height. Vertical distance shall be measured from the street grade of the closest point in the street the sign is located along or the grade at the base of the sign, whichever is higher, to the highest point of the sign structure.

- 151.11.77 SINGLE FAMILY RESIDENTIAL. Any development where: 1) no building contains more than one dwelling unit; 2) every dwelling unit is on a separate lot; and 3) where no lot contains more than one dwelling unit.
- 151.11.78 SITE PLAN. A plan, prepared to scale, showing accurately and with complete dimensioning, the boundaries of a site and the location of all buildings, structures, uses, and principal site development features for a specific parcel of land.
- 151.11.79 STORY. That portion of a building comprised between a floor and a floor or roof next above. The first floor of a two- or multi-story building shall be deemed the story that has no floor immediately below it that is designed for living quarters or for human occupancy. Those stories above the first floor shall be numbered consecutively.
- 151.11.80 STREET (PUBLIC ROAD, LANE, WAY, TERRACE, DRIVE). A dedicated and accepted public right-of-way used, or intended to be used, for passage or travel by motor vehicles which affords the principal means of access to abutting properties.
- 151.11.81 STREET, PRIVATE. Any right-of-way or area set aside to provide vehicular access which is not dedicated or intended to be dedicated to the Town of Taylorsville or the State of North Carolina, and which is not maintained by the Town of Taylorsville or the State of North Carolina.
- 151.11.82 STRUCTURE. Anything constructed or erected the use of which required more or less permanent location on the ground or which is attached to something having more or less permanent location on the ground.
- 151.11.83 STRUCTURAL ALTERATIONS. Any change, except for repair or replacement, in the supporting members of a structure, such as, but not limited to, bearing walls, columns, beams, or girders.
- 151.11.84 TOURIST HOME. A dwelling where for compensation lodging only is provided for not more than ten (10) persons, and is open to transients.
- 151.11.85 VARIANCE, ZONING. A modification of the literal provisions of the Zoning Ordinance granted when strict enforcement of the Zoning Ordinance would cause undue hardship owing to circumstances unique to the individual property on which the variance is granted.
- 151.11.86 VARIANCE, WATERSHED. A permission to develop or use property granted by the Board of Adjustment or Watershed Review Board relaxing or waiving a water supply watershed management requirement adopted by the Environmental Management Commission that is incorporated into this Ordinance. A watershed variance shall be either major or minor.
- 151.11.87 WATER DEPENDENT STRUCTURE. Any structure for which the use requires access to or proximity to or citing within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots and commercial boat storage areas are not water dependent structures.
- 151.11.88 WATERSHED. The entire land area contributing surface drainage to a

specific point (e.g. the water supply intake).

- 151.11.89 WATERSHED ADMINISTRATOR. An official designated by the Town of Taylorsville responsible for administration and enforcement of Article XIV. This term shall also include the term "Zoning Enforcement Officer."
- 151.11.90 YARD. A space on the same lot with a principal building, open, unoccupied, and unobstructed by buildings or structures from ground to sky except where encroachments and accessory buildings are expressly permitted.
- 151.11.91 YARD, FRONT. An open space on the same lot with a principal building, extending the full width of the lot, and situated between the front property or street right-of-way line and the front line of the building (exclusive of steps) projected to the sidelines of the lot.
- 151.11.92 YARD, REAR. An open, unoccupied space on the same lot with a principal building, extending the full width of the lot, and situated between the rear line of the lot and the rear line of the building projected to the sidelines of the lot.
- 151.11.93 YARD, SIDE. An open, unoccupied space on the same lot with the principal building between the side line of the building and the side line of the lot and extending from the front yard line to the rear yard line.
- 151.11.94 ZONING ENFORCEMENT OFFICER. The Town of Taylorsville official charged with the responsibility of enforcing this Ordinance. This term shall also include the term "Watershed Administrator."
- 151.11.95 ZONING PERMIT. Permit issued by the Zoning Enforcement Officer indicating proposed use is in compliance with the requirements of this Ordinance. This term shall also include the term "Watershed Protection Permit."

**ARTICLE VI
ESTABLISHMENT OF DISTRICTS**

Section 151.15 Use Districts

For the purpose of this Ordinance, the Town of Taylorsville and its Extraterritorial Zoning Jurisdiction are hereby divided into eight (8) districts designated as follows:

Single-Family Residential District (R-1)
General Residential District (R-2)
Suburban Residential District (R-3)
Central Business District (B-1)
General Business District (B-2)
Neighborhood Business District (B-3)
Highway Business District (B-4)
Light Industrial District (M-1)
Heavy Industrial District (M-2)

Section 151.16 District Boundaries

The boundaries of these districts are hereby established as shown on a map entitled "Official Zoning Map, Town of Taylorsville, North Carolina." The zoning map and all the notations, references and amendments thereto, and other information shown thereon are hereby made a part of this Ordinance the same as if such information set forth on the map were all fully described as set forth herein. The zoning map shall be retained in the office of the Town Clerk.

Section 151.17 Rules Governing Boundaries

Where, due to the scale, lack of detail or illegibility of the zoning map, there is uncertainty, contradiction or conflict as to the intended location of any zoning district boundary as shown thereof, the Zoning Enforcement Officer shall make an interpretation of said map upon request of any person. Any person aggrieved by such interpretation may appeal such interpretation to the Board of Adjustment. The Zoning Enforcement Officer and the Board of Adjustment, in interpreting the zoning map or deciding any appeal, shall apply the following standards:

- 151.17.01 Where district boundaries are indicated as approximately following the centerlines of streets or highways, street lines, or railroad right-of-way lines or such lines extended, such centerlines, street lines or railroad right-of-way lines shall be construed to be such boundaries.

- 151.17.02 Where district boundaries are so indicated that they approximately follow lot lines, such lot lines shall be construed to be said boundaries.

- 151.17.03 Where district boundaries are so indicated that they are approximately parallel to the centerlines of streets, highways, or railroads, or rights-of-way of same, such district boundaries shall be construed as being parallel thereto and at such distance therefrom as indicated on the zoning map. If no distance is given, such dimension shall be determined by the use of the scale shown on said zoning map.
- 151.17.04 Where a district boundary line divides a lot in single ownership, the district requirements for the least restricted portion of such lot shall be deemed to apply to the whole thereof, provided that such extensions shall not include any part of such a lot more than thirty-five (35) feet beyond the district boundary line. The term "least restrictive" shall refer to zoning restrictions, not lot or tract size.

ARTICLE VII GENERAL PROVISIONS

Section 151.20 Application

- 151.20.01 Use. No building or land shall hereafter be used or occupied and no building or structure or part thereof shall be erected, moved or structurally altered except in conformity with the regulations of this Ordinance or amendments thereto, for the district in which it is located.

- 151.20.02 Height and Density. No building shall hereafter be erected or altered so as to exceed the height limit, or to exceed the density regulations of this Ordinance for the district in which it is located.
- 151.20.03 Lot Size. No lot shall be reduced in size so that the lot width or depth, front, side or rear yards, lot area per family or other requirements of this Ordinance are not maintained, except in cases of street widening.
- 151.20.04 Yard Use Limitations. No part of a yard or other open space required about any building for the purpose of complying with the provisions of this Ordinance shall be included as a part of a yard or other open space similarly required for another building.
- 151.20.05 One Principal Building on Any Lot. Every building hereafter erected, moved, or structurally altered shall be located on a lot of record and in no case shall there be more than one (1) principal building and its customary accessory buildings on any lot, except in the case of a specially designed complex of institutional, residential, or commercial buildings in an appropriate zoning district, as permitted by Sections 151.73, 151.74 of this Ordinance. Furthermore, no building shall be constructed or erected upon any lot which does not abut a public street by twenty-five (25) feet.
- 151.20.06 Necessary Repairs Permitted. Nothing in this Ordinance shall prevent the strengthening or restoration to a safe or lawful condition of any part of any building or structure declared unsafe or unlawful by the Building Inspector, the Fire Chief, or any other duly authorized Town officials.

Section 151.21 Nonconforming Uses

After the effective date of this Ordinance, existing structures, or the uses of land or structures which would be prohibited under the regulations for the district in which it is located (if they existed on the adoption date of this Ordinance), shall be considered as nonconforming. Nonconforming structures or uses (as defined in Section 151.11.64 of this Ordinance) may be continued provided they conform to the following provisions:

151.21.01 Continuing Nonconforming Uses of Land

- 151.21.01.01 Extension of Use. The enlargement or extension of nonconforming uses of land are discouraged; however, a nonconforming use of land may be enlarged or extended once with the following provisions:
- a. An application for a conditional use permit must be filed with the Board of Adjustment and a public hearing held. The application shall include a site plan with sufficient detail of the expansions and any alterations to be made.
 - b. Enlargement or alterations may not exceed twenty-five percent (25%) of the original floor area existing at the time of enactment of this Ordinance.
 - c. No nonconforming use may be enlarged or altered if the intensity of the current use will be increased substantially, as determined by the Board of Adjustment. In determining whether the degree of intensity is increased, the Board of Adjustment shall consider:

1. Probable traffic increase of each use.
 2. Parking requirements of each use.
 3. Probable number of persons on the premises at a time of peak demand.
 4. Off-site impacts of each use, such as noise, glare, dust, vibration, or smoke and other impacts on surrounding properties or public health and safety.
- d. No such nonconforming use shall be moved in whole or in part to any portion of the lot other than occupied at the time of enactment of this Ordinance.
 - e. Changing from one nonconforming use to another shall not permit expansion more than once.
 - f. All dimensional requirements of the district in which the nonconforming use is located must be met.
- 151.21.01.02 Change of Use. Any nonconforming uses of land may be changed to a conforming use, or with the approval of the Board of Adjustment, to any use more in character with the uses permitted in the district in question.
- 151.21.01.03 Cessation of Use. When a non-conforming use of land is discontinued for a consecutive period of one hundred eighty (180) days the property involved may thereafter be used only for conforming purposes.
- 151.21.02 Continuing the Use of Nonconforming Buildings
- 151.21.02.01 Extension of Use. Nonconforming buildings and nonconforming uses may be enlarged provided the provisions of Section 151.21.01.01 are met. Additionally, no nonconforming structure or use may be enlarged or altered in anyway which increases its dimensional deficiencies.
- 151.21.02.02 Change of Use. The lawful use of a building existing at the time of the adoption of this Ordinance may be continued, even though such use does not conform to the provisions of this Ordinance. Furthermore, such building may be reconstructed or structurally altered and any nonconforming use therein changed subject to the following regulations:
- a. The order of classification of uses from highest to lowest for the purpose of this section shall be as follows: residential district uses, business district uses, industrial district uses, as permitted by this Ordinance.
 - b. A nonconforming use may be changed to a use of higher classification but not to a use of lower classification. A nonconforming use may not be changed to another use of the same classification unless the new use shall be deemed by the Board of Adjustment, after public notice and hearing, to be less harmful to the surrounding neighborhood, than the existing nonconforming use.
 - c. A nonconforming commercial or industrial use may not be extended, but the extension of a use to any portion of a building, which portion is at the time of the adoption of this Ordinance primarily designed for such nonconforming use, shall not be

deemed to be an extension of a nonconforming use.

- d. A nonconforming building damaged or destroyed by fire, explosion, tornado, earthquake, or similar uncontrollable cause may be repaired or rebuilt within one year of the date of such damage, but not thereafter.
- e. Existing single-family residential structures in the business or industrial districts may be enlarged, extended or structurally altered or rebuilt, provided that no additional dwelling units result therefrom.

151.21.02.03 Cessation of Use. If a nonconforming use is discontinued for a consecutive period of one hundred eighty (180) days, any future use of the buildings and premises shall be in conformity with the provisions of this Ordinance.

151.21.03 Continuing the Non-Conforming Use of Manufactured Home Parks

151.21.03.01 Extension of Use. Nonconforming manufactured home parks existing at the time of adoption of this Ordinance shall not be allowed to replace, expand, increase or bring in another manufactured home unless this nonconforming manufactured home park is adhering to the provisions of Section 151.56 of this Ordinance.

Section 151.22 Interpretation of District Regulations

151.22.01 Uses by Right. Uses not designated as permitted by right or subject to additional conditions shall be prohibited. Conditional uses are permitted according to the additional regulations imposed. These conditional uses can be approved only by the Board of Adjustment. Additional uses when in character with the district may be added to the Ordinance by amendment.

151.22.02 Minimum Regulations. Regulations set forth by this Ordinance shall be minimum regulations. If the district requirements set forth in this section are at a variance with the requirements of any other lawfully adopted rules, regulations or ordinances, the more restrictive or higher standard shall govern.

151.22.03 Land Covenants. Unless restrictions established by covenants for the land are prohibited by or are contrary to the provisions of this Ordinance, nothing herein contained shall be construed to render such covenants inoperative.

Section 151.23 Zoning of Annexed Areas

Any areas annexed into the Town of Taylorsville, upon annexation, shall be rezoned to an appropriate zoning district, upon recommendation by the Planning Board and approval by the Town Board of Commissioners and following notifications and public hearings as required by North Carolina General Statutes.

**ARTICLE VIII
USE REQUIREMENTS BY DISTRICT**

Section 151.30 Single-Family Residential District R-1

This is a low-density neighborhood district consisting of single-family residences and public and private community uses. The regulations of this district are intended to discourage any use which, because of its character, would substantially interfere with the development of single-family residences in the districts and which would be detrimental to the quiet residential nature of the areas included within this district.

151.30.01 Permitted Principal Uses.

- 151.30.01.01 Single-family dwellings, including modular homes but excluding manufactured homes;
- 151.30.01.02 Churches and their customary related uses including cemeteries, provided that all buildings and graves shall be located not less than thirty (30) feet from any property line;
- 151.30.01.03 Colleges, universities, public elementary and secondary schools, private schools having curricula approximately the same as ordinarily given in public schools, located not less than fifty (50) feet from any property line;
- 151.30.01.04 Public libraries, museums and art galleries, fire and police stations, hospitals and related buildings, located not less than thirty (30) feet from any property line;
- 151.30.01.05 Golf courses, parks, playgrounds, swimming pools, and community centers operated on a non-profit basis for recreational purposes only;
- 151.30.01.06 Greenhouses and truck gardens that are incidental to the residential use and conducted on a non-commercial basis only;
- 151.30.01.07 Public works and utility facilities such as distribution lines, transformer stations, electric substations, water tanks and towers, pumping stations, fire stations and telephone substations, if such facilities are essential to the service of the immediate area and further provided that no vehicles or equipment are stored on the premises and that no offices will be permitted (except in the case of fire stations), provided:
 - (a) All buildings and facilities shall be set back at least twenty (20) feet from all property lines, and shall be designed and landscaped to blend in with the surrounding area;
 - (b) All dangerous apparatus shall be enclosed by a chain link fence at least six (6) feet in height.
 - (c) There shall be a buffer along the rear and side lot lines. No such buffer shall, however, extend nearer to a street right-of-way line than the established setback line of the adjoining lots.Public works and utility facilities does not include cellular towers.

See Article XII Telecommunications Tower Ordinance for regulations regarding cellular towers.

151.30.02 Conditional Uses.

The following conditional uses are permitted when authorized by the Taylorsville Board of Adjustment:

151.30.02.01 Home occupations as defined in Section 151.11.45 of this Ordinance.

151.30.03 Permitted Accessory Uses.

151.30.03.01 Customary accessory buildings or structures shall be located on the same lot as the main structure and be permitted only in a rear yard (with the exception of garages and carports) and are subject to the provisions of Section 151.70 of this Ordinance.

151.30.04 Off-Street Parking and Loading Requirements.

Off-street parking and loading requirements shall be provided for all uses as required by Article IX of this Ordinance.

151.30.05 Sign Requirements.

See Article X of this Ordinance.

151.30.06 Dimensional Requirements.

- | | | |
|--------------|--------------------------------------|------------------------|
| 151.30.06.01 | Minimum required lot width: | One Hundred (100) feet |
| 151.30.06.02 | Minimum required front yard: | Thirty-five (35) feet |
| 151.30.06.03 | Minimum required side yard: | Ten (10) feet |
| | Side yard abutting a street: | Twenty (20) feet |
| 151.30.06.04 | Minimum required rear yard: | Twenty-five (25) feet |
| 151.30.06.05 | Maximum height of buildings: | Thirty-five (35) feet |
| 151.30.06.06 | Minimum frontage on a public street: | Twenty-five (25) feet |

151.30.07 Minimum Lot Size and Maximum Lot Coverage.

Development activities that are not located in the WS-II Watershed Area, or in the WS-IV Watershed Area, or that are located in the WS-IV Watershed Area and do not require a Sedimentation/Erosion Control Plan under State law, are subject only to Section 151.30.07.01 below.

151.30.07.01 Lots deeded on or after the effective date of this Ordinance:

20,000 square feet

Maximum permissible lot coverage by the principal and accessory buildings shall not exceed forty percent (40%) of the total lot area.

151.30.07.02 Lots deeded on or after the effective date of this Ordinance, where the development is located in the WS-IV Watershed Area and requires a Sedimentation/Erosion Control Plan under State law:

Single-Family: 21,780 square feet (or 20,000 square feet excluding roadway right-of-way)

All Other
Non-Residential
Development: Maximum impervious surface coverage as defined in this Ordinance shall not exceed twenty-four (24%) percent of the total lot area.

151.30.07.03 Lots deeded on or after the effective date of this Ordinance, and where the development is located in the WS-II Watershed Area:

Single-Family: 43,560 square feet (or 40,000 square feet excluding roadway right-of-way)

All Other
Non-Residential
Development: Maximum impervious surface coverage as defined in this Ordinance shall not exceed twelve (12%) percent of the total lot area except that up to ten (10%) percent of the balance of the watershed may be developed for non-residential uses at up to seventy (70%) percent built-upon area.

151.30.08 All areas not used for development or parking shall be grassed or otherwise suitably landscaped to prevent erosion.

Section 151.31 General Residential District R-2

This district is established as a high-density residential neighborhood in which the principal use of the land is for single-family, two-family and multi-family residences. The regulations of this district are intended to provide areas for those persons desiring small residences in relatively high-density neighborhoods.

151.31.01 Permitted Principal Uses.

151.31.01.01 All uses permitted in the R-1 Single-Family Residential District;

151.31.01.02 Single-family dwellings, including modular homes;

151.31.01.03 Two-family dwellings or duplexes;

151.31.01.04 Multi-family dwellings;

151.31.01.05 Class A (Doublewide) Manufactured Homes on individual lots subject to the provisions of Section 151.55 of this Ordinance;

151.31.01.06 Manufactured Home Subdivisions provided said manufactured home subdivisions meet all the requirements of the Taylorsville Subdivision Regulations;

151.31.01.07 Boarding houses;

- 151.31.01.08 Tourist homes and Bed & Breakfasts;
- 151.31.01.09 Kindergartens or day nurseries, provided that they comply with the operating standards and licensing procedures for day-care facilities of the North Carolina Office of Child Day-Care Licensing; further provided that not less than one hundred (100) square feet of outdoor play area is provided for each child, and provided further, that such play space is surrounded by a sturdy fence at least four (4) feet in height;
- 151.31.01.10 Convalescent homes, orphanages, residential care facilities, and charitable institutions not used primarily for the treatment of contagious diseases, alcoholics, drug addicts or psychotics.

151.31.02 Conditional Uses.

The following conditional uses are permitted when authorized by the Taylorsville Board of Adjustment:

- 151.31.02.01 Offices and clinics of physicians, dentists, architects, engineers, attorneys, and other professional persons.
- 151.31.02.02 Home occupations as defined in Section 151.11.45 of this Ordinance.
- 151.31.02.03 Planned Unit Developments subject to the provisions of Section 151.75 of this Ordinance.
- 151.31.02.4 Group Multi-Family Developments subject to the provisions of Section 151.73 of this Ordinance.
- 151.31.02.05 Cluster Developments subject to the provisions of Section 151.76 of this Ordinance.

151.31.03 Permitted Accessory Uses.

- 151.31.03.01 Customary accessory buildings or structures shall be located on the same lot as the main structure and be permitted only in a rear yard (with the exception of garages and carports) and are subject to the provisions of Section 151.70 of this Ordinance.

151.31.04 Off-Street Parking and Loading Requirements.

Off-street parking and loading requirements shall be provided for all uses as required by Article IX of this Ordinance.

151.31.05 Sign Requirements.

See Article X of this Ordinance.

151.31.06 Dimensional Requirements.

- 151.31.06.01 Minimum required lot width

Single-Family and All	
Other Non-Residential Uses:	Seventy (70) feet
Two-Family:	Eighty (80) feet

	Multi-Family:	One Hundred (100) feet
151.31.06.02	Minimum required front yard: Single-Family and All Other Non-Residential Uses: Two-Family: Multi-Family:	Thirty (30) feet Thirty (30) feet Thirty-five (35) feet
151.31.06.03	Minimum required side yard: Side yard abutting a street:	Ten (10) feet Twenty (20) feet
151.31.06.04	Minimum required rear yard: Single-Family and All Other Non-Residential Uses: Two-Family: Multi-Family:	Twenty-five (25) feet Twenty-five (25) feet Thirty (30) feet
151.31.06.05	Maximum height of buildings: Single-Family and All Other Non-Residential Uses: Two-Family: Multi-Family:	Thirty-five (35) feet Thirty-five (35) feet Fifty (50) feet
151.31.06.06	Minimum frontage on a public street:	Twenty-five (25) feet

151.31.07 Minimum Lot Size and Maximum Lot Coverage.

Development activities that are not located in the WS-II Watershed Area, or in the WS-IV Watershed Area, or that are located in WS-IV and do not require a Sedimentation/Erosion Control Plan under State law are subject only to Section 151.30.07.01 below.

151.31.07.01 Lots deeded on or after the effective date of this Ordinance:

Single-Family and All Other Non- Residential Uses:	14,000 square feet;
Two-Family:	20,000 square feet (10,000 sq. ft./unit);
Multi-Family:	10,000 square feet plus 10,000 square feet/unit;

Maximum permissible lot coverage by the principal and accessory buildings shall not exceed forty percent (40%) of the total lot area.

151.31.07.02 Lots deeded on or after the effective date of this Ordinance, where the development is located in the WS-IV Watershed Area and requires a Sedimentation/Erosion Control Plan under State law:

(A) OPTION 1: With a curb and gutter street system

Single-Family: 21,780 square feet (or 20,000 square feet excluding roadway right-of-way)

All Other Residential and Non-Residential Development: Maximum impervious surface coverage as defined in this Ordinance shall not exceed twenty-four (24%) percent of the total lot area.

(B) OPTION 2: Without a curb and gutter street system

Single-Family: 15,000 square feet
All Other Residential
and Non-Residential
Development: Maximum impervious surface coverage as defined
in this Ordinance shall not exceed thirty-six (36%)
percent of the total lot area.

151.31.07.3 Lots deeded on or after the effective date of this Ordinance, and where
the development is located in the WS-II Watershed Area:

Single-Family: 43,560 square feet (or 40,000 square feet excluding
roadway right-of-way)
All Other Residential
and Non-Residential
Development: Maximum impervious surface coverage as defined
in this Ordinance shall not exceed twelve (12%)
percent of the total lot area except that up to ten
(10%) percent of the balance of the watershed may
be developed for non-residential uses at up to
seventy (70%) percent built-upon area.

151.31.08 All areas not used for development or parking shall be grassed or otherwise
suitably landscaped to prevent erosion.

Section 151.32 Suburban Residential District R-3

The regulations of this district are intended to insure that residential development not having
access to public water supplies and dependent upon septic tanks for sewage disposal will occur
at sufficiently low densities to provide a healthful environment.

151.32.01 Permitted Principal Uses.

- 151.32.01.01 Single-family dwellings, including modular homes;
- 151.32.01.02 Two-family dwellings;
- 151.32.01.03 Class A (Doublewide) manufactured homes on individual lots subject to
the provisions of Section 151.55 of this Ordinance;
- 151.32.01.04 Manufactured Home Subdivisions provided said manufactured home
subdivisions meet all the requirements of the Taylorsville Subdivision
Regulations;
- 151.32.01.05 Churches and their customary related uses including cemeteries,
provided that all buildings and graves shall be located not less than thirty
(30) feet from any property line;
- 151.32.01.06 Parks, playgrounds, community centers, clubs and lodges, swimming
pools, golf courses, and other recreational facilities operated on a non-
profit basis;

- 151.32.01.07 Public and private elementary and secondary schools, but not schools primarily engaged in commercial or industrial trades education;
- 151.32.01.08 Kindergartens or day nurseries, provided that they comply with the operating standards and licensing procedures for day-care facilities of the North Carolina Office of Child Day-Care Licensing; further provided that not less than one hundred (100) square feet of outdoor play area is provided for each child, and provided further, that such play space is surrounded by a sturdy fence at least four (4) feet in height;
- 151.32.01.09 Convalescent homes, orphanages, residential care facilities, and charitable institutions not used primarily for the treatment of contagious diseases, alcoholics, drug addicts or psychotics;
- 151.32.01.10 Public works and utility facilities such as distribution lines, transformer stations, electric substations, water tanks and towers, pumping stations, fire stations and telephone substations, if such facilities are essential to the service of the immediate area and further provided that no vehicles or equipment are stored on the premises and that no offices will be permitted (except in the case of fire stations), provided:
 - (a) All buildings and facilities shall be set back at least twenty (20) feet from all property lines, and shall be designed and landscaped to blend in with the surrounding area;
 - (b) All dangerous apparatus shall be enclosed by a chain link fence at least six (6) feet in height.
 - (c) There shall be a buffer along the rear and side lot lines. No such buffer shall, however, extend nearer to a street right-of-way line than the established setback line of the adjoining lots.
 Public works and utility facilities does not include cellular towers. See Article XII Telecommunications Tower Ordinance for regulations regarding cellular towers.

151.32.02 Conditional Uses.

The following conditional uses are permitted when authorized by the Taylorsville Board of Adjustment:

- 151.32.02.01 Home occupations as defined in Section 151.11.45 of this Ordinance.

151.32.03 Permitted Accessory Uses.

- 151.32.03.01 Customary accessory buildings or structures shall be located on the same lot as the main structure and be permitted only in a rear yard (with the exception of garages and carports) and are subject to the provisions of Section 151.70 of this Ordinance.

151.32.04 Off-Street Parking and Loading Requirements.

Off-street parking and loading requirements shall be provided for all uses as required by Article IX of this Ordinance.

151.32.05 Sign Requirements.

See Article X of this Ordinance.

151.32.06 Dimensional Requirements.

- 151.32.06.01 Minimum required lot width
Single-Family and All
Other Non-Residential Uses: One Hundred (100) feet
Two-Family: One Hundred Ten (110) feet
- 151.32.06.02 Minimum required front yard
Single-Family and All
Other Non-Residential Uses: Forty-five (45) feet
Two-Family: Fifty (50) feet
- 151.32.06.03 Minimum required side yard: Fifteen (15) feet
Side yard abutting a street: Twenty-five (25) feet
- 151.32.06.04 Minimum required rear yard: Forty (40) feet
- 151.32.06.05 Maximum height of buildings: Thirty-five (35) feet
- 151.32.06.06 Minimum frontage on a public street: Twenty-five (25) feet

151.32.07 Minimum Lot Size and Maximum Lot Coverage.

Development activities that are not located in the WS-II Watershed Area, or in the WS-IV Watershed Area, or that are located in the WS-IV Watershed Area and do not require a Sedimentation/Erosion Control Plan under State law, are subject only to Section 151.32.07.01 below.

151.32.07.01 Lots deeded on or after the effective date of this Ordinance:

- Single-Family and
All Other Non-
Residential Uses: 20,000 square feet;
Two-Family: 30,000 square feet (15,000 sq. ft./unit)

Maximum permissible lot coverage by the principal accessory buildings shall not exceed forty percent (40%) of the total lot area.

151.32.07.02 Lots deeded on or after the effective date of this Ordinance where the development is located in the WS-IV Watershed area and requires a Sedimentation/Erosion Control Plan under State law:

Single-Family: 21,780 square feet (or 20,000 square feet excluding roadway right-of-way).

All Other Residential
and Non-Residential
Development: Maximum impervious surface coverage as defined in this Ordinance shall not exceed twenty-four percent (24%) of the total lot area.

151.32.07.03 Lots deeded on or after the effective date of this Ordinance and where the development is located in the WS-II Watershed Area:

Single-Family: 43,560 square feet (or 40,000 square feet excluding roadway right-of-way)

All Other Residential
and Non-Residential
Development:

Maximum impervious surface coverage as defined in this Ordinance shall not exceed twelve percent (12%) of the total lot area except that up to ten percent (10%) of the balance of the watershed may be developed for non-residential uses at up to seventy percent (70%) built-upon area.

151.32.08 All areas not used for development or parking shall be grassed or otherwise suitably landscaped to prevent erosion.

Section 151.33 Central Business District B-1

The intent of the Central Business District is to accommodate and encourage further expansion and renewal in the business core of Taylorsville. A variety of business, retail, professional, financial, cultural, and other related services are encouraged in an effort to provide a mix of activities necessary to consumers.

151.33.01 Permitted Principal Uses.

- 151.33.01.01 Alcoholic beverages, packaged, retail sales;
- 151.33.01.02 Automobile parking lots;
- 151.33.01.03 Automobile parts and supplies, new;
- 151.33.01.04 Automobile repair garages, but excluding open storage of wrecked or non-operative automobiles and trucks;
- 151.33.01.05 Automobile sales, new and used;
- 151.33.01.06 Bakeries, where the products are sold exclusively at retail on the premises;
- 151.33.01.07 Banks and other financial institutions, including loan and finance institutions;
- 151.33.01.08 Barber and beauty shops;
- 151.33.01.09 Bicycle sales and repair shops;
- 151.33.01.10 Billiard and pool halls, or gamerooms;
- 151.33.01.11 Bus terminals and railroad stations;
- 151.33.01.12 Cell Towers subject to the provisions of Article XII of this Ordinance;
- 151.33.01.13 Community colleges, barber and beauty schools, art schools, music and dance studios, and similar organizations, but not vocational trade schools, all without students in residence;
- 151.33.01.14 Clubs and lodges catering exclusively to members and their guests;

- 151.33.01.15 Dry cleaning and laundry pick-up stations and dry cleaning plants having not more than two thousand (2,000) square feet of floor space and no emission of steam;
- 151.33.01.16 Feed, seed, and fertilizer sales, retail;
- 151.33.01.17 Fire and police stations;
- 151.33.01.18 Florist shops, but not commercial greenhouses;
- 151.33.01.19 Food stores, retail only, but excluding the killing or dressing of any flesh or fowl;
- 151.33.01.20 Furriers and fur storage;
- 151.33.01.21 Hotels and motels;
- 151.33.01.22 Jewelry repair and pawn shops;
- 151.33.01.23 Locksmiths and gunsmiths;
- 151.33.01.24 Medical and dental clinics and laboratories;
- 151.33.01.25 Newspaper offices and printing plants incidental to such offices;
- 151.33.01.26 Newsstands;
- 151.33.01.27 Offices, business, government, medical, professional and public;
- 151.33.01.28 Office equipment and supplies, sales and service;
- 151.33.01.29 Opticians and optical supplies stores;
- 151.33.01.30 Photographic studios and camera supply stores;
- 151.33.01.31 Printing, publishing and reproducing establishments;
- 151.33.01.32 Public parks, playgrounds and community centers;
- 151.33.01.33 Public utility distribution lines, transformer stations, transmission lines and towers, water tanks and towers, pumping stations, and telephone exchanges, but not service and storage yards;
- 151.33.01.34 Radio and television stations, studios and offices;
- 151.33.01.35 Radio and television repair shops, electric shops;
- 151.33.01.36 Restaurants, including drive-thru restaurants but not drive-in restaurants;
- 151.33.01.37 Retail establishments such as department, clothing, fabric, shoe, variety, notion, drug, hardware, furniture, appliance, music, art, antique, jewelry, sporting goods, toy, hobby, book and stationary stores, but not excluding similar retail establishments;
- 151.33.01.38 Service stations, provided that gasoline pumps shall be located at least twenty (20) feet from any property line, and all service,

storage or similar activities connected with such use shall be conducted entirely within the premises;

- 151.33.01.39 Shoe repair shops;
- 151.33.01.40 Tailor, dressmaking and millinery shops;
- 151.33.01.41 Taxi stands;
- 151.33.01.42 Telephone and telegraph offices;
- 151.33.01.43 Theaters, indoor.

151.33.02. Conditional Uses.

The following conditional uses are permitted when authorized by the Taylorsville Board of Adjustment:

- 151.33.02.01 Mixed use developments, buildings erected for both dwelling and business purposes, provided that such residential uses are only permitted above the ground floor of a business building.
- 151.33.02.02 Other Central Business not otherwise named herein provided that no such use shall be permitted which is likely to be dangerous, offensive, or detrimental to the health, safety, welfare or general character of this zoning district or of the community by reason of emission of dust, gas, smoke, fumes, odors, noise, vibrations, or otherwise.

151.33.03 Permitted Accessory Uses.

- 151.33.03.01 Customary accessory buildings or structures shall be located on the same lot as the main structure and be permitted only in a rear yard and are subject to the provisions of Section 151.70 of this Ordinance.

151.33.04 Off-Street Parking and Loading Requirements.

Off-street parking and loading requirements shall be provided for all uses as required by Article IX of this Ordinance.

151.33.05 Sign Requirements.

See Article X of this Ordinance.

151.33.06 Dimensional Requirements.

Within the B-1 Central Business District, the following dimensional requirements shall be complied with:

- 151.33.06.01 Minimum required front, side, and rear yards: none required, but if provided, each side and rear yard shall be at least ten (10) feet in width. However, where a lot abuts any residential district there shall be a fifteen (15) foot setback. Also, there shall be a buffer around all principal and

accessory structures and uses as defined in this Ordinance, unless a suitable existing buffer is present on adjacent property as determined by the Zoning Enforcement Officer. Street or road rights-of-way shall not be construed as part of setback distances and shall not be substituted in lieu of required buffering.

151.33.06.02 Maximum height of any building shall not be more than fifty (50) feet.

151.33.06.03 Minimum frontage on a public street: Twenty-five (25) feet.

151.33.07 Minimum Lot Size and Maximum Lot Coverage.

Within the B-1 Central Business District, there is no minimum lot size and development activities can cover one hundred percent (100%) of the lot area.

Section 151.34 General Business District B-2

This district is established for those areas of the community where the principal use of land is for general business that does not require a central location. It is the intent of this Ordinance that this district will usually be located adjacent to industrial areas and major traffic ways to provide retailing goods and services to the traveling public, as well as local townspeople.

151.34.01 Permitted Principal Uses.

- 151.34.01.01 All uses permitted in the Central Business District B-1;
- 151.34.01.02 Animal hospitals or veterinary clinics, but excluding open kennels on the premises;
- 151.34.01.03 Assembly halls, coliseums, gymnasiums, and similar structures;
- 151.34.01.04 Automobile washing and detailing establishments;
- 151.34.01.05 Bakeries and other establishments manufacturing prepared foods and miscellaneous food products;
- 151.34.01.06 Boat works and sales;
- 151.34.01.07 Bowling alleys;
- 151.34.01.08 Building supply and equipment sales, but excluding open storage;
- 151.34.01.09 Churches and their customary accessory uses, including cemeteries;
- 151.34.01.10 Cold storage and freezer lockers;
- 151.34.01.11 Dairy bars and ice cream manufacturing;
- 151.34.01.12 Dry cleaning and laundering establishments;
- 151.34.01.13 Electrical appliances and equipment, sales and repair, but excluding open storage;
- 151.34.01.14 Fabricating shops of small size such as cabinet, upholstery and sheet metal shops;

- 151.34.01.15 Funeral homes and mortuaries;
- 151.34.01.16 Golf or baseball driving ranges, miniature and par-3 golf courses and other similar outdoor recreational facilities;
- 151.34.01.17 Greenhouses and horticultural nurseries;
- 151.34.01.18 Kindergartens or day nurseries, provided that they comply with the operating standards and licensing procedures for day-care facilities of the North Carolina Office of Child Day-Care Licensing; further provided that not less than one hundred (100) square feet of outdoor play area is provided for each child; provided further, that such area shall be enclosed by a sturdy fence at least four (4) feet in height;
- 151.34.01.19 Launderettes and laundromats;
- 151.34.01.20 Manufactured and modular home display lots;
- 151.34.01.21 Milk distribution (non-bottling) facilities;
- 151.34.01.22 Motels and tourist homes;
- 151.34.01.23 Plumbing shops, but excluding open storage;
- 151.34.01.24 Produce stands and markets, retail only;
- 151.34.01.25 Restaurants, including drive-in and drive-thru restaurants;
- 151.34.01.26 Sign painting and fabricating shops;
- 151.34.01.27 Skating rinks, permanent;
- 151.34.01.28 Theaters, drive-in, subject to the following conditions:
 - (a) No part of the theater screen, projection booth, or other building shall be located closer than five hundred (500) feet to any residential district nor closer than fifty (50) feet to any residential district nor closer than fifty (50) feet to any property line or public right-of-way; and no parking space shall be located closer than one hundred (100) feet to any residential district.
 - (b) The theater screen shall not face a major street or highway; and reservoir-parking space off the street shall be provided for patrons awaiting admission in an amount of not less than thirty percent (30%) of the vehicular capacity of the theater.

151.34.02 Conditional Uses.

The following conditional uses are permitted when authorized by the Taylorsville Board of Adjustment:

- 151.34.02.01 Other general business not otherwise named herein provided that no such use shall be permitted which is likely to be dangerous, offensive, or detrimental to the health, safety, welfare or general character of this

zoning district or of the community by reason of the emission of dust, gas, smoke, fumes, odors, noise, vibrations, or otherwise.

151.34.02.02 Group Commercial Developments subject to the provisions of Section 151.74 of this Ordinance.

151.34.03 Permitted Accessory Uses.

151.34.03.01 Customary accessory buildings or structures shall be located on the same lot as the main structure and be permitted only in a rear yard and are subject to the provisions of Section 151.70 of this Ordinance.

151.34.04 Off-Street Parking and Loading Requirements.

Off-street parking and loading requirements shall be provided for all uses as required by Article IX of this Ordinance.

151.34.05 Sign Requirements.

See Article X of this Ordinance.

151.34.06 Dimensional Requirements.

151.34.06.01 Minimum required front yard: Ten (10) feet

151.34.06.02 Minimum required side and rear yards: Ten (10) feet

Where a lot abuts any residential district there shall be a side or rear yard clearance of at least twenty (20) feet. Furthermore, upon any side or rear lot line that abuts a residential district there shall be a buffer as defined in this Ordinance, unless a suitable existing buffer is present on adjacent property as determined by the Zoning Enforcement Officer. No such buffer shall, however, extend nearer to a street right-of-way than the established building line. Street or road rights-of-way shall not be construed as part of setback distances and shall not be substituted in lieu of required buffering.

151.34.06.03 Maximum height of buildings: Thirty-five (35) feet

151.34.06.04 Minimum frontage on a public street: Twenty-five (25) feet

151.34.07 Minimum Lot Size and Maximum Lot Coverage.

Within the General Business District B-2, there is no minimum lot size and development activities can cover up to fifty (50 %) percent of the total lot area. Parking areas are not included in the 50% developable space. However, if the lot is located in the WS-IV Watershed Protected Area and development requires a Sedimentation/Erosion Control Plan, the maximum permissible impervious surface coverage, as defined in this Ordinance, shall not exceed thirty-six percent (36%) of the total lot area or twenty-four percent (24%) of the total lot area if the lot abuts a curb and gutter street system. If the lot is located in the WS-II Watershed Area, the maximum permissible impervious surface coverage, as defined in this Ordinance, shall not exceed twelve percent (12%) of the total lot area except that up to ten percent (10%) of the balance of the watershed may be developed for non-residential uses at up to seventy percent (70%) built-upon area.

Section 151.35 Neighborhood Business District B-3

This district is established for those areas of the community where the principal use of land is to provide for the retailing of goods and services to surrounding residential neighborhoods. The regulations of the district are designed to reduce traffic and parking congestion to a minimum in order to protect the surrounding residential areas.

151.35.01 Permitted Principal Uses.

- 151.35.01.01 Bakeries, delicatessens and the like, provided that products prepared or processed on the premises shall be sold only at retail and only on the premises;
- 151.35.01.02 Banks and other financial institutions including loan and finance companies;
- 151.35.01.03 Barber and beauty shops;
- 151.35.01.04 Bed & Breakfasts;
- 151.35.01.05 Boarding houses;
- 151.35.01.06 Churches;
- 151.35.01.07 Kindergartens or day nurseries, provided that they comply with the operating standards and licensing procedures for day-care facilities of the North Carolina Office of Child Day-Care Licensing; further provided that not less than one hundred (100) square feet of outdoor play area is provided for each child, and provided further, that such play space is surrounded by a sturdy fence at least four (4) feet in height;
- 151.35.01.08 Drug stores, newsstands, tobacco shops;
- 151.35.01.09 Florists, gift shops, stationery stores;
- 151.35.01.10 Grocery stores;
- 151.35.01.11 Self-service laundry and dry cleaning establishments;
- 151.35.01.12 Medical, health and dental clinics
- 151.35.01.13 Jewelry repair stores;
- 151.35.01.14 Produce stands, retail only;

151.35.02 Conditional Uses.

The following conditional uses are permitted when authorized by the Taylorsville Board of Adjustment:

- 151.35.02.01 Other Neighborhood Business not otherwise named herein provided that no such use shall be permitted which is likely to be dangerous, offensive, or detrimental to the health, safety, welfare or general character of this zoning district or of the community by reason of emission of dust, gas, smoke, fumes, odors, noise, vibrations, or otherwise.

151.35.03 Permitted Accessory Uses.

151.35.03.01 Customary accessory buildings or structures shall be located on the same lot as the main structure and be permitted only in a rear yard and are subject to the provisions of Section 151.70 of this Ordinance.

151.35.04 Off-Street Parking and Loading Requirements.

Off-street parking and loading requirements shall be provided for all uses as required by Article IX of this Ordinance.

151.35.05 Sign Requirements.

See Article X of this Ordinance.

151.35.06 Dimensional Requirements.

151.35.06.01 Minimum required front yard: Forty (40) feet

151.35.06.02 Minimum required side and rear yards: Ten (10) feet

Where a lot abuts any residential district there shall be a side or rear yard clearance of at least twenty (20) feet. Furthermore, upon any side or rear lot line that abuts a residential district there shall be a buffer as defined in this Ordinance, unless a suitable existing buffer is present on adjacent property as determined by the Zoning Enforcement Officer. No such buffer shall, however, extend nearer to a street right-of-way than the established building line. Street or road rights-of-way shall not be construed as part of setback distances and shall not be substituted in lieu of required buffering.

151.35.06.03 Maximum height of buildings: Thirty-five (35) feet

151.35.06.04 Minimum frontage on a public street: Twenty-five (25) feet

151.35.07 Minimum Lot Size and Maximum Lot Coverage.

Within the Neighborhood Business District B-3, there is no minimum lot size and development activities can cover up to fifty (50 %) percent of the total lot area. Parking areas are not included in the 50% developable area. However, if the lot is located in the WS-IV Watershed Protected Area and development requires a Sedimentation/Erosion Control Plan, the maximum permissible impervious surface coverage, as defined in this Ordinance, shall not exceed thirty-six percent (36%) of the total lot area or twenty-four percent (24%) of the total lot area if the lot abuts a curb and gutter street system. If the lot is located in the WS-II Watershed Area, the maximum permissible impervious surface coverage, as defined in this Ordinance, shall not exceed twelve percent (12%) of the total lot area except that up to ten percent (10%) of the balance of the watershed may be developed for non-residential uses at up to seventy percent (70%) built-upon area.

Section 151.36 Highway Business District B-4

This district is established for those areas of the community where the principal use of land is for businesses located along or near major transportation routes and that are primarily engaged in the retailing of heavy durable goods to the region and the provision of services to transients which, because of their nature, prefer locations along major transportation routes, away from the

Central Business District and residential sections of the community. It is the intent of this Ordinance that this district will usually be located along principal transportation routes.

151.36.01 Permitted Principal Uses.

- 151.36.01.01 All uses permitted in a General Business District B-2;
- 151.36.01.02 Antique shops;
- 151.36.01.03 Art galleries;
- 151.36.01.04 Art goods stores;
- 151.36.01.05 Assembly halls;
- 151.36.01.06 Ballrooms and similar structures;
- 151.36.01.07 Blueprinting and drafting suppliers;
- 151.36.01.08 Boarding houses;
- 151.36.01.09 Book and stationary stores;
- 151.36.01.10 Building materials, storage, equipment services and sales;
- 151.36.01.11 Cabinet shops;
- 151.36.01.12 Camera shops;
- 151.36.01.13 Candy stores;
- 151.36.01.14 Clothing stores;
- 151.36.01.15 Coliseums;
- 151.36.01.16 Dance studios;
- 151.36.01.17 Data processing service, commercial;
- 151.36.01.18 Kindergartens or day nurseries, provided that they comply with the operating standards and licensing procedures for day-care facilities of the North Carolina Office of Child Day-Care Licensing; further provided that not less than one hundred (100) square feet of outdoor play area is provided for each child, and provided further, that such play space is surrounded by a sturdy fence at least four (4) feet in height;
- 151.36.01.19 Dental labs;
- 151.36.01.20 Department stores;
- 151.36.01.21 Drive-in theaters, subject to conditions listed in 151.34.01.28;
- 151.36.01.22 Drug stores;
- 151.36.01.23 Electrical supplies;

- 151.36.01.24 Fabric stores;
- 151.36.01.25 Farm machinery sales;
- 151.36.01.26 Feed and seed stores;
- 151.36.01.27 Finance companies;
- 151.36.01.28 Fire and police stations;
- 151.36.01.29 Floral shops and commercial greenhouses;
- 151.36.01.30 Fraternal halls;
- 151.36.01.31 Fruit stands and grocery stores;
- 151.36.01.32 Furniture showrooms;
- 151.36.01.33 Gift shops;
- 151.36.01.34 Glass and mirror shops;
- 151.36.01.35 Hatcheries;
- 151.36.01.36 Hardware, furniture and appliance stores;
- 151.36.01.37 Heating and refrigeration shops;
- 151.36.01.38 Indoor theaters;
- 151.36.01.39 Industrial supplies and equipment sales/service;
- 151.36.01.40 Janitorial supplies;
- 151.36.01.41 Kennels, provided there shall be no open kennels, provided further that no pens and kennel fences shall be located closer than twenty (20) feet to any property line;
- 151.36.01.42 Libraries and museums;
- 151.36.01.43 Machine shops;
- 151.36.01.44 Magazine and newsstands;
- 151.36.01.45 Manufactured home display lots or boatworks and marine sales;
- 151.36.01.46 Medical and dental clinics;
- 151.36.01.47 Motorcycle, lawnmower and power saw sales and service;
- 151.36.01.48 Music stores and studios;
- 151.36.01.49 Notions stores;

- 151.36.01.50 Offices and agencies for business or civic purposes;
- 151.36.01.51 Office supplies/equipment sales;
- 151.36.01.52 Paint and floor covering stores;
- 151.36.01.53 Parks and playgrounds;
- 151.36.01.54 Pet shops;
- 151.36.01.55 Pharmacies;
- 151.36.01.56 Photographic studios;
- 151.36.01.57 Plumbing shops;
- 151.36.01.58 Pool rooms;
- 151.36.01.59 Pottery yards;
- 151.36.01.60 Printing and publishing firms;
- 151.36.01.61 Public health centers;
- 151.36.01.62 Public utility distribution lines and pumping stations;
- 151.36.01.63 Radio and television stations;
- 151.36.01.64 Retail foods and meat markets;
- 151.36.01.65 Retail goods stores;
- 151.36.01.66 Rental stores;
- 151.36.01.67 Riding stables;
- 151.36.01.68 Saddleries;
- 151.36.01.69 Shoe sales and repair;
- 151.36.01.70 Sign printing shops;
- 151.36.01.71 Sporting goods stores;
- 151.36.01.72 Storage warehouses;
- 151.36.01.73 Tailor and dressmaker shops;
- 151.36.01.74 Tobacco stores;
- 151.36.01.75 Toy stores;
- 151.36.01.76 Transmission lines and towers, when operating requirements necessitate locating in this district, but excluding service and storage yards;

- 151.36.01.77 Travel agencies;
- 151.36.01.78 Tree services;
- 151.36.01.79 Variety store (retail);
- 151.36.01.80 Water tanks and towers;
- 151.36.01.81 Wood yards.

151.36.02 Conditional Uses.

The following conditional uses are permitted when authorized by the Taylorsville Board of Adjustment.

- 151.36.02.01 Other Highway Business not otherwise named herein provided that no such use shall be permitted which is likely to be dangerous, offensive, or detrimental to the health, safety, welfare or general character of this zoning district or of the community by reason of emission of dust, gas, smoke, fumes, odors, noise, vibrations, or otherwise.
- 151.36.02.02 Group Commercial Developments subject to the provisions of Section 151.74 of this Ordinance.
- 151.36.02.03 Sexually oriented businesses as defined in Section 111.02 of the Town Code of Ordinances and in compliance with Chapter 111 of the Town Code of Ordinances, provided however:
 - a) No more than one (1) sexually oriented business can be located within a two thousand (2,000) foot radius (determined by a straight line from the front entrance of the sexually oriented business and not street distance) from any other sexually oriented business.
 - b) No sexually oriented business can be located within a one thousand (1,000) foot radius (determined by a straight line from the front entrance of the sexually oriented business and not street distance) of the closest boundary line of any residential district within the Town's zoning jurisdiction, and any church, school, day care, public park, or playground within the Town's zoning jurisdiction.

151.36.03 Permitted Accessory Uses.

- 151.36.03.01 Customary accessory buildings or structures shall be located on the same lot as the main structure and be permitted only in a rear yard and are subject to the provisions of Section 151.70 of this Ordinance.

151.36.04 Off-Street Parking and Loading Requirements.

Off-street parking and loading requirements shall be provided for all uses as required by Article IX of this Ordinance.

151.36.05 Sign Requirements.

See Article X of this Ordinance.

151.36.06 Dimensional Requirements.

151.36.06.01 Minimum required front yard: Thirty (30) feet

151.36.06.02 Minimum required side yard: Twelve (12) feet

Where a lot abuts any residential district there shall be a side yard clearance of at least twenty-two (22) feet. Furthermore, upon any side lot line that abuts a residential district there shall be a buffer as defined in this Ordinance, unless a suitable existing buffer is present on adjacent property as determined by the Zoning Enforcement Officer. No such buffer shall, however, extend nearer to a street right-of-way than the established building line. Street or road rights-of-way shall not be construed as part of setback distances and shall not be substituted in lieu of required buffering.

151.36.06.03 Minimum required rear yard: Ten (10) feet

Where a lot abuts any residential district there shall be a rear yard clearance of at least twenty (20) feet. Furthermore, upon any rear lot line that abuts a residential district there shall be a buffer as defined in this Ordinance, unless a suitable existing buffer is present on adjacent property as determined by the Zoning Enforcement Officer. No such buffer shall, however, extend nearer to a street right-of-way than the established building line. Street or road rights-of-way shall not be construed as part of setback distances and shall not be substituted in lieu of required buffering.

151.36.06.04 Maximum height of buildings: Thirty-five (35) feet

151.36.06.05 Minimum frontage on a public street: Twenty-five (25) feet

151.36.07 Minimum Lot Size and Maximum Lot Coverage.

Within the Highway Business District B-4, there is no minimum lot size and development activities can cover up to fifty (50 %) percent of the total lot area. Parking areas are not included in the 50% developable area. However, if the lot is located in the WS-IV Watershed Protected Area and requires a Sedimentation/Erosion Control Plan, the maximum permissible impervious surface coverage, as defined in this Ordinance, shall not exceed thirty-six percent (36%) of the total lot area or twenty-four percent (24%) of the total lot area if the lot abuts a curb and gutter street system. If the lot is located in the WS-II Watershed Area, the maximum permissible impervious surface coverage, as defined in this Ordinance, shall not exceed twelve percent (12%) of the total lot area except that up to ten percent (10%) of the balance of the watershed may be developed for non-residential uses at up to seventy percent (70%) built-upon area.

Section 151.37 Light Industrial District M-1

This district provides a place for the location of industrial and other uses which would be inimical or incompatible with general business areas. It is intended to permit in this district any use that is not inherently obnoxious to urban areas because of noise, odor, smoke, light vibration, dust or the use or storage of dangerous chemicals and/or materials.

151.37.01 Permitted Principal Uses

- 151.37.01.01 Bedding, carpet & pillow manufacturing and cleaning;
- 151.37.01.02 Cabinet & woodworking shops;
- 151.37.01.03 Cell Towers;
- 151.37.01.04 Clothing manufacturing;
- 151.37.01.05 Electrical appliance manufacturing & repair;
- 151.37.01.06 Farm machinery assembly, repair & sales;
- 151.37.01.07 Furniture manufacturing plants;
- 151.37.01.08 Glass products manufacturing;
- 151.37.01.09 Greenhouses & horticultural nurseries;
- 151.37.01.10 Hatcheries;
- 151.37.01.11 Ice plants & cold storage lockers;
- 151.37.01.12 Leather products & luggage manufacturing, not including processing or storage or raw hides;
- 151.37.01.13 Offices pertaining to any permitted use;
- 151.37.01.14 Pharmaceutical manufacturing;
- 151.37.01.15 Printing, publishing & reproducing establishments;
- 151.37.01.16 Radio & television stations & towers;
- 151.37.01.17 Sign painting & fabricating shops;
- 151.37.01.18 Tire recapping & retreading shops;
- 151.37.01.19 Upholstery shops;
- 151.37.01.20 Venetian blind & awning manufacturing & cleaning shops;
- 151.37.01.21 Wholesale & warehouse establishments;

151.37.02 Conditional Uses.

The following conditional uses are permitted when authorized by the Taylorsville Board of Adjustment:

- 151.37.02.01 Light manufacturing uses not otherwise named herein provided that no such use shall be permitted in this district which is likely to be dangerous, offensive, or detrimental to the health, safety, welfare or general character of this zoning district or of the community by reason of the emission of dust, gas, smoke, fumes, odors, glare, noise, vibrations, or otherwise.

151.37.02.02 Group Industrial Developments subject to the provisions of Section 151.74 of this Ordinance.

151.37.03 Permitted Accessory Uses.

151.37.03.01 Customary accessory buildings or structures shall be located on the same lot as the main structure and be permitted only in a rear yard and are subject to the provisions of Section 151.70 of this Ordinance.

151.37.04 Off-Street Parking and Loading Requirements.

Off-street parking and loading requirements shall be provided for all uses as required by Article IX of this Ordinance.

151.37.05 Sign Requirements.

See Article X of this Ordinance.

151.37.06 Dimensional Requirements.

151.37.06.01 Minimum required front yard: Fifty (50) feet

151.37.06.02 Minimum required side and rear yards: Twenty (20) feet
Where a lot abuts any residential district there shall be a thirty (30) foot setback from the property line. Also, there shall be a ten (10) foot buffer around all principal and accessory structures and uses as defined in this Ordinance, unless a suitable existing buffer is present on adjacent property as determined by the Zoning Enforcement Officer. Street or road rights-of-way shall not be construed as part of setback distances and shall not be substituted in lieu of required buffering.

151.37.06.03 Maximum height of buildings: Fifty (50) feet

151.37.06.04 Minimum frontage on a public street: Twenty-five (25) feet.

151.37.07 Minimum Lot Size and Maximum Lot Coverage.

Within the Industrial District M-1 there is no minimum lot size and development activities can cover up to fifty percent (50%) of the total lot area. Parking areas are not included in the 50% developable area. However, if the lot is located in the WS-IV Watershed Protected Area and development requires a Sedimentation/Erosion Control Plan, the maximum permissible impervious surface coverage, as defined in this Ordinance, shall not exceed thirty-six percent (36%) of the total lot area or twenty-four percent (24%) of the total lot area if the lot abuts a curb and gutter street system. If the lot is located in the WS-II Watershed Area, the maximum permissible impervious surface coverage, as defined in this Ordinance, shall not exceed twelve percent (12%) of the total lot area except that up to ten percent (10%) of the balance of the watershed may be developed for non-residential uses at up to seventy percent (70%) built-upon area.

Section 151.38 Heavy Industrial District M-2

This district is designed to encourage the development of major manufacturing, processing, warehousing and major research operations. This district is designed to permit these types of developments, which require access to major traffic arteries. This district is also designed to

prohibit any use, which would be inherently obnoxious to urban areas because of noise, odor, smoke, light, vibration, dust or the use or storage of dangerous chemicals and/or materials.

151.38.01 Permitted Principal Uses.

- 151.38.01.02 All uses permitted in the M-1 district;
- 151.38.01.03 Auto wrecking yards & scrap metal dealers;
- 151.38.01.04 Bottling plants;
- 151.38.01.05 Brick, tile & pottery yards;
- 151.38.01.06 Bus repair & storage terminals;
- 151.38.01.07 Fairgrounds;
- 151.38.01.08 Concrete & asphalt products;
- 151.38.01.09 Contractors' plants & storage yards;
- 151.38.01.10 Correctional facilities;
- 151.38.01.11 Dairy products processing plants;
- 151.38.01.12 Feed mills & grain elevators;
- 151.38.01.13 Food processing in wholesale quantity;
- 151.38.01.14 Foundaries producing iron & steel, aluminum & brass products;
- 151.38.01.15 Industrial equipment, sales & repair;
- 151.38.01.16 Precision instrument manufacturing;
- 151.38.01.17 Lumber yards, building materials, storage & sales;
- 151.38.01.18 Machine & welding shops;
- 151.38.01.19 Machine tool manufacturing;
- 151.38.01.20 Metal fabrication plants;
- 151.38.01.21 Monument works & sales;
- 151.38.01.22 Offices pertaining to any permitted use;
- 151.38.01.23 Paint & household chemicals manufacturing;
- 151.38 01.24 Paper goods manufacturing;
- 151.38.01.25 Plastics & rubber goods manufacturing;
- 151.38.01.26 Plumbing shops & storage yards;

- 151.38.01.27 Public works & public utility facilities, including service & storage yards;
- 151.38.01.28 Quarries;
- 151.38.01.29 Sawmills;
- 151.38.01.30 Sheet metal & roofing shops;
- 151.38.01.31 Textile manufacturing;
- 151.38.01.32 Tobacco processing & storage;
- 151.38.01.33 Trucking terminals & transfer companies;
- 151.38.01.34 Wholesale storage of gasoline or oil in bulk terminal plants.

151.38.02 Conditional Uses.

The following conditional uses are permitted when authorized by the Taylorsville Board of Adjustment:

- 151.38.02.01 Heavy manufacturing uses not otherwise named herein provided that no such use shall be permitted in this district which is likely to be dangerous, offensive, or detrimental to the health, safety, welfare or general character of this zoning district or of the community by reason of the emission of dust, gas, smoke, fumes, odors, glare, noise, vibrations, or otherwise.
- 151.38.02.02 Group Industrial Developments subject to the provisions of Section 151.74 of this Ordinance.

151.38.03 Permitted Accessory Uses.

- 151.38.03.01 Customary accessory buildings or structures shall be located on the same lot as the main structure and be permitted only in a rear yard and are subject to the provisions of Section 151.70 of this Ordinance.

151.38.04 Off-Street Parking and Loading Requirements.

Off-street parking and loading requirements shall be provided for all uses as required by Article IX of this Ordinance.

151.38.05 Sign Requirements.

See Article X of this Ordinance.

151.38.06 Dimensional Requirements.

- 151.38.06.01 Minimum required front yard: Fifty (50) feet
- 151.38.06.02 Minimum required side and rear yards: Twenty (20) feet
Where a lot abuts any residential district there shall be a thirty (30) foot setback from the property line. Also, there shall be a ten (20) foot buffer around all principal and accessory structures and uses as defined in this Ordinance, unless a suitable existing buffer is present on adjacent

property as determined by the Zoning Enforcement Officer. Street or road rights-of-way shall not be construed as part of setback distances and shall not be substituted in lieu of required buffering.

151.38.06.03 Maximum height of buildings: Fifty (50) feet

151.38.06.04 Minimum frontage on a public street: Twenty-five (25) feet.

151.38.07 Minimum Lot Size and Maximum Lot Coverage.

Within the Industrial District M-1 there is no minimum lot size and development activities can cover up to fifty percent (50%) of the total lot area. Parking areas are not included in the 50% developable area. However, if the lot is located in the WS-IV Watershed Protected Area and development requires a Sedimentation/Erosion Control Plan, the maximum permissible impervious surface coverage, as defined in this Ordinance, shall not exceed thirty-six percent (36%) of the total lot area or twenty-four percent (24%) of the total lot area if the lot abuts a curb and gutter street system. If the lot is located in the WS-II Watershed Area, the maximum permissible impervious surface coverage, as defined in this Ordinance, shall not exceed twelve percent (12%) of the total lot area except that up to ten percent (10%) of the balance of the watershed may be developed for non-residential uses at up to seventy percent (70%) built-upon area.

**ARTICLE IX
OFF-STREET PARKING AND LOADING REQUIREMENTS**

Section 151.40 Parking Space to be Required and Permanent

- 151.40.01 Off-street parking space shall be provided in accordance with this Article in all districts, except the B-1 Central Business District, the function of which makes it impractical to impose such requirements. However, if provided in the B-1 district, parking spaces shall be provided at one (1) space per 500 square feet of gross floor area.
- 151.40.02 The off-street parking space required by this division shall be permanent space and shall not be used for any other purpose.
- 151.40.03 Each parking space shall be:
- 151.40.03.01 Angle parking: 30 degree, 45 degree, 60 degree and 90 degree: minimum nine (9) feet by eighteen (18) feet.
 - 151.40.03.02 Parallel parking: minimum nine (9) feet by twenty-two (22) feet.
- The parking standards are for one vehicle, exclusive of adequate egress and ingress, drives, maneuvering space and landscaping.
- 151.40.04 Off-street parking spaces shall not be located in such a manner that parked cars will extend onto a public street or sidewalk.

Section 151.41 Use of Parking Lots Permitted

- 151.41.01 The required parking space for any number of separate uses may be combined in one lot but the required space assigned to one use may not be assigned to another use at the same time, except that one-half (1/2) of the parking space required for churches, theaters, or assembly halls whose peak attendance will be at night or on Sundays may be assigned to a use which will be closed at nights or on Sundays.
- 151.41.02 No portion of any street right-of-way shall be considered as fulfilling or partially fulfilling the area requirements for off-street parking required by the terms of this Ordinance.

Section 151.42 Enforcement

- 151.42.01 Each application for a zoning permit or certificate of occupancy shall include information as to the location and dimensions of off-street parking space and the means of ingress and egress between such space and a street. This information shall be in sufficient detail to enable the Zoning Enforcement Officer to determine whether or not the requirements of this Ordinance are met.

151.42.02 The Certificate of Occupancy of the use of any structure or land where off-street parking space is required shall be withheld by the Zoning Enforcement Officer until the provisions of this Ordinance are fully met. If at any time such compliance ceases, any Certificate of Occupancy which has been issued for the use of the property shall immediately become void and of no effect.

Section 151.43 Schedule of Parking Spaces

Off-street parking spaces shall be provided and permanently maintained by the owners and occupants of the following types of property uses on the basis indicated:

<u>Use Classification</u>	<u>Parking Space Requirement</u>
Automobile sales, repair garages or washing/detailing establishments	One (1) space for each two (2) employees at maximum employment on a single shift, plus two (2) spaces for each 300 square feet of sales, repair or washing/detailing space.
Bowling alleys	Two (2) spaces for each alley, plus one (1) additional space for each two (2) employees.
Churches and funeral homes	One (1) space for each five seats in the main assembly room or chapel.
Customary Home Occupations	In addition to residential requirements, one (1) space per 100 square feet devoted to the home occupation.
Duplexes, multi-family dwellings and Group Residential Developments	Two (2) spaces per dwelling unit.
Elementary schools and Junior High schools, both public and private	One (1) space for each classroom and administrative office.
Greenhouses and truck gardens as permitted in residential districts	One (1) space in addition to the residential requirements.
Hospitals	One (1) space for each four (4) patient beds plus one (1) space for each staff or visiting doctor, plus one (1) space for each four (4) employees.
Hotels	One (1) space for each three (3) guest rooms, plus one (1) additional space for each five (5) employees.
Kindergartens or day nurseries	One (1) space for each employee plus two (2) spaces for visitors.
Manufactured housing	Two (2) spaces per manufactured housing unit.
Medical offices and clinics	Four (4) spaces for each doctor practicing at the clinic, plus one (1) space for each employee.

Mixed Use Developments	Two (2) spaces per dwelling unit in addition to business requirements.
Modular homes	Two (2) spaces per modular home.
Motels and tourist homes	One (1) space for each guest room plus two (2) additional spaces for employees.
Offices, professional, business or public, including banks	One (1) space for each 200 square feet of gross floor area.
Places of public assembly including private clubs, lodges and fraternal buildings, not providing overnight accommodations, auditoriums, armories, dance halls, pool rooms, skating rinks, theaters, stadiums, gymnasiums, amusement parks, community centers, libraries, museums, and all places of similar public assembly, both indoor and outdoor	One (1) space for each four (4) seats provided for patron use, plus one (1) space for each 100 square feet of floor or ground area used for amusement or assembly but not containing fixed seats.
Retail businesses	One (1) space for each 200 square feet of gross floor area.
Restaurants, night clubs and taverns	One (1) space for each two seating accommodations, plus one space for each two employees on the shift of largest employment.
Sanitariums, residential care facilities and similar institutions	One (1) space for each six (6) patient beds, plus one (1) space for each staff or visiting doctor, plus one (1) space for each four (4) employees.
Senior High schools, universities, colleges, both public and private	One (1) space for each ten (10) students for whom the school was designed, plus one (1) space for each classroom and administrative office.
Service stations	Two (2) spaces for each gas pump plus three (3) spaces for each grease rack or similar facility.
Shopping centers and Group Commercial/Industrial Developments	Three (3) spaces per 1,000 square feet of gross floor area.
Single-family site-built homes	Two (2) spaces per home.
Storage warehouses and yards	Three (3) spaces per 1,000 square feet of gross floor area.
Tourist homes or boarding houses, and bed & breakfasts	One (1) space for each three (3) guest rooms, plus one (1) additional space for the owners, if resident on the premises.

Wholesaling, manufacturing and industrial uses

One (1) space for each two (2) employees at maximum employment on a single shift.

Section 151.44 Required Loading and Unloading

Every building or structure used for business, trade, or industry hereafter erected shall provide space as indicated herein for the loading and unloading of vehicles off the street or public right-of-way. Such space shall have access to an alley or street. For the purposes of this Section, an off-street loading space shall have a minimum dimension of twelve (12) feet by forty (40) feet and overhead clearance of fourteen (14) feet in height above the alley or street grade. Off-street loading and unloading shall be permanently maintained by the owners and occupants of the following types of property uses on the basis indicated:

151.44.01 Retail operations: One (1) loading space for each 5,000 square feet of gross floor area or fraction thereof.

151.44.02 Wholesale and industrial operations: One (1) loading space for each 10,000 square feet of gross floor area or fraction thereof.

Section 151.45 Landscaping of Parking Area

The landscaping requirements of this section shall apply to land, public and private, designated as multi-family, recreational, institutional, industrial and commercial land uses which are required to have twenty (20) or more parking spaces. All those multi-family, recreational, institutional, industrial and commercial land uses which are required to have ten (10) to nineteen (19) spaces must comply with the street yard requirements only.

151.45.01 Parking area landscaping requirements of this section are as follows:

- a. Credit for using existing trees on site greater than or equal to those required by standards (see Section 151.45.02 and 151.45.03) shall be two (2) trees for every one tree retained.
- b. When using an existing tree, the area under the dripline (maximum extension of branches) of the tree must remain undisturbed. This includes grading, fill, paving, etc.
- c. If an existing tree dies, it must be replaced with two (2) trees during the next planting season.
- d. If any vegetation dies, replacement is required within the next planting season.
- e. Landscaping shall be placed in a manner, which meets the intent of this Ordinance, and shall be maintained.
- f. Any fraction of requirements shall be rounded up to the next whole number.
- g. Landscaping shall not obstruct the view of motorists using any street, private driveway, parking aisles or the approach to any street intersection so as to constitute a traffic hazard.

151.45.02 Landscaping requirements for interior areas of parking areas: (Interior areas are defined as the area within the property used for vehicular storage, parking and movement).

- a. Landscaped planting areas are to be located within or adjacent to the parking area as tree islands, at the end or parking bays, inside medians, or between rows or cars.
- b. There shall be one (1) large shade tree for every two thousand (2000) square feet of total parking area.
- c. There shall be one shrub for every one thousand (1000) square feet of total parking area. Shrubs must be eighteen (18) inches tall at planting and reach a minimum height of thirty (30) inches in three (3) years.
- d. All trees and shrubs are to be planted within a landscaped planting area not less than one hundred sixty-two (162) square feet in area.
- e. No vehicular parking space shall be farther than fifty (50) feet from a planting area.
- f. No more than fifty (50 %) percent of the trees and/or shrubs shall be deciduous.

151.45.03 Landscaping requirements for street yards of parking areas:
(Street yards are defined as the area between the public right-of-way and interior area)

- a. Street yards are required to be a minimum of ten (10) feet in width.
- b. One (1) large shade tree is required every fifty (50) feet or one (1) small tree is required every twenty-five (25) feet along the street frontage.
- c. Shrub beds (fifty (50) square feet minimum and a minimum of ten (10) shrubs per shrub bed) are required every forty (40) feet along the street frontage. Berms may be used instead of shrubs with the following stipulations: 1) berms must be the required height of shrubs with no more than a 3:1 slope; 2) shorter shrubs may be used in combination with berms as long as the required total height is met; 3) berms must be capped or topped with groundcover vegetation; 4) berms shall be grassed; 5) berms must occupy sixty (60%) percent of the frontage area; 6) fences may be used in combination with berms as long as the fence is compatible in materials and color to the building and is not more than forty (40%) percent of the required height.

151.45.04 Tree and shrub specifications:

- a. "Tree" as used herein means any tree, evergreen or deciduous, whose mature height of its species can be expected to exceed fifteen (15) feet for a small tree and thirty-five (35) feet for a large tree (except in cases where this would require the planting of incompatible species with the surrounding environment, such as overhead utility lines, then acceptable species may be used). The tree, existing or planted, shall be at least eight (8) feet in height and six and one-quarter (6 1/4") inches in circumference (two (2) inches in diameter) measured at one-half (1/2') foot above grade for newly planted trees and measured at four (4) feet above grade for existing trees.
- b. "Shrub" shall attain a minimum of thirty (30") inches in height with three (3) years of planting. All shrubs shall be a minimum of eighteen (18") inches tall when planted. All shrubs planted on berms may have lesser height provided the combined height of the berm and plantings after three (3) years is at least thirty (30") inches in height.

ARTICLE X SIGN REGULATIONS

Section 151.50 Purpose and Intent

It is the general purpose and intent of this Article to prohibit signs of a commercial nature in districts in which commerce is barred; to limit signs in the commercial districts in relation to the intensity of the use of the district and its surroundings and to control the number, area, and location of signs in such a way as to support and complement the land use objectives set forth in the district regulations of this Ordinance. These regulations are designed, among other purposes, to stabilize and protect property values, maintain the visual attractiveness of the Town of Taylorsville and its environs, and promote public safety.

151.50.01 Definitions.

Unless otherwise specifically provided, or unless clearly required by the context, the words and phrases defined in Article V have the meaning indicated when used in this Article. The words and phrases defined below have the meaning indicated when used in this Article.

- a) Billboard. An off-premise sign owned by a person, corporation, or other entity that engages in the business of selling the advertising space on that sign.
- b) Internally Illuminated Signs. Signs where the source of the illumination is inside the sign and light emanates through the message of the sign, rather than being reflected off the surface of the sign from an external source. Without limiting the generality of the foregoing, signs that consist of or contain tubes that (i) are filled with neon or some other gas that glows when an electric current passes through it and (ii) are intended to form or constitute all or part of the message of the sign, rather than merely providing illumination to other parts of the sign that contain the message, shall also be considered internally illuminated signs.
- c) Off-Premise Signs. A sign that draws attention to or communicates information about a business, service, commodity, accommodation, attraction, or other enterprise or activity that exists or is conducted, sold, offered, maintained, or provided at a location other than the premises on which the sign is located. A sign that draws attention to a cause or advocates or proclaims a political, religious, or other noncommercial message shall also be an off-premises sign unless such sign is excluded from regulation under Subsection 151.50.03 (f) or is subject to regulation under Subsection 151.50.04 (e).
- d) On-Premise Sign. A sign that draws attention to or communicates information about a business, service, commodity, accommodation, attraction, or other enterprise or activity that exists or is conducted, sold, offered, maintained, or provided on the premises where the sign is located.
- e) Portable Sign. A sign designed to be transported, including, but not limited to signs designed to be transported by means of wheels and signs converted to A- or T-frames.
- f) Temporary Sign. A sign that (i) is used in connection with a circumstance, situation, or event that is designed, intended, or expected to take place or to be completed within a reasonably short or definite period after the erection of such sign, or (ii) is intended to remain on the location where it is erected or placed for a period of not more than 30 days per calendar year. If a sign display area is permanent but the message displayed is subject to periodic changes, that sign shall not be regarded as temporary.

151.50.02 Zoning Compliance Certificate Required.

- a) Before any sign, except those specifically exempted as provided in Sections 151.50.03 and 151.50.04, shall be constructed, erected, moved, enlarged, illuminated or

substantially altered, a Zoning Permit shall be obtained. Mere painting or changing of message on a sign shall not, in and of itself, be considered a substantial alteration.

- b) If plans submitted for a Zoning Permit or conditional use permit include sign plans in sufficient detail that the permit-issuing authority can determine whether the proposed sign or signs comply with the provisions of this Article, then issuance of the requested Zoning Permit or conditional use permit shall constitute approval of the proposed sign or signs.
- c) Signs not approved as provided in Subsection (b) or exempted under the provisions referenced in Subsection (a) may be constructed, erected, moved, enlarged, illuminated or substantially altered only in accordance with a Zoning Permit issued by the Zoning Enforcement Officer.
 - (1) Sign permit applications and sign permits shall be governed by the same provisions of this Ordinance applicable to Zoning Compliance Certificates.
 - (2) In the case of a lot occupied or intended to be occupied by multiple business enterprises (i.e. a shopping center), sign permits shall be issued in the name of the lot owner or his agent rather than in the name of the individual business enterprise requesting a particular sign. The Town may assist the owner by suggesting a formula whereby the maximum square footage of sign area allowed on the lot may be allocated equitably among all tenants, but the Town shall be responsible for enforcing only the provisions of this Article and not the provisions of any allocation formula, lease, or other private restriction.

151.50.03 Signs Excluded from Regulation.

The following signs are exempt from regulation under this section except for those stated in Subsection 151.50.13.

- a) Non-illuminated signs not exceeding four square feet in area that are customarily associated with residential use and that are not of a commercial nature, such as (i) signs giving property identification names or numbers or names of occupants, (ii) signs on mailboxes or newspaper tubes, (iii) signs, posted on private property relating to private parking or warning the public against trespassing or danger from animals, and (iv) church directional signs.
- b) Insignia of any government and historic markers erected by a governmental body.
- c) Legal notices, identification and informational signs and traffic directional signs erected by or on behalf of a governmental body.
- d) Integral decorative or architectural features of buildings, except letters, trademarks, moving parts or moving lights.
- e) Signs directing and guiding traffic on private property, but which bear no advertising matter and do not exceed six square feet in area.
- f) Signs proclaiming religious, or other non-commercial messages other than those regulated by Subsection 151.50.04(e) that do not exceed one per abutting street and 16 square feet in area and are not illuminated.

151.50.04 Certain Temporary Signs: Permit Exemptions and Additional Regulations.

The following temporary signs are permitted without a Zoning Permit or conditional use permit. However, such signs shall conform to the requirements set forth below in addition to all other applicable requirements of this Article except those contained in

Subsections 151.50.07 (Total Sign Area) and 151.50.09 (Number of Freestanding Signs).

- a) Signs containing the message that the real estate on which the sign is located (including buildings) is for sale, lease, or rent, together with information identifying the owner or agent. Such signs may not exceed six (6) square feet in area and shall be removed immediately after sale, lease, or rental. For lots of less than five acres, a single sign on each street frontage may be erected. For lots of five acres or more in area and having a street frontage in excess of 400 feet, a second sign not exceeding four square feet in area may be erected.
- b) Construction site identification signs. Such signs may identify the project, the owner or developer, architect, engineer, contractor and subcontractors, funding sources, and may contain related information including but not limited to sale or leasing information. Not more than one such sign may be erected per site, and it may not exceed 32 square feet in area. Such signs shall not be erected prior to the issuance of a building permit and shall be removed within 10 days after the issuance of the final Certificate of Occupancy.
- c) Signs attached temporarily to the interior of a building window or glass door. Such signs, individually or collectively, may not cover more than 75 percent of the surface area of the transparent portion of the window or door to which they are attached.
- d) Displays, including lighting, erected in connection with the observance of holidays. Such signs shall be removed within 10 days following the holidays.
- e) Signs erected in connection with elections or political campaigns. Such signs shall be removed within three days following the election or conclusion of the campaign. No such sign may exceed 16 square feet in surface area.
- f) On and off-premise signs indicating that a special event such as a grand opening, fair, carnival, circus, festival, or similar event is to take place. Such signs may be erected not sooner than two weeks before the event and must be removed not later than three days after the event.
- g) Portable signs may be used on a temporary basis for not more than a two-week period.
- h) Temporary signs not covered in the foregoing categories, so long as such signs meet the following restrictions:
 - 1) Not more than one such sign may be located on any lot.
 - 2) No such sign may exceed four square feet in surface area.
 - 3) Such sign may not be displayed for longer than three consecutive days nor more than 10 days out of any 365-day period.
 - 4) Other temporary signs not listed in Subsection 151.50.04 shall be regarded and treated in all respects as permanent signs, except that (as provided in Subsection 151.50.08) temporary signs shall not be included in calculating the total amount of permitted sign area.

151.50.05 Determining the Number of Signs.

- a) For the purpose of determining the number of signs, a sign shall be considered to be a single display surface or display device containing elements organized, related, and composed to form a unit. Where matter is displayed in a random manner without organized relationship of elements, each element shall be considered a single sign.
- b) A two-sided or multi-sided sign shall be regarded as one sign so long as:

- 1) With respect to a V-type sign, the two sides are at no point separated by a distance that exceeds five feet; and
- 2) With respect to double-faced signs, the distance between the backs of each face of the sign does not exceed three feet.

151.50.06 Computation of Sign Area.

- a) The surface area of a sign shall be computed by including the entire area within a single, continuous, rectilinear perimeter of not more than eight straight lines, or a circle or an ellipse, enclosing the extreme limits of the writing, representation, emblem, or other display, together with any material or color forming an integral part of the background of the display or used to differentiate the sign from the backdrop or structure against which it is placed, but not including any supporting framework or bracing that is clearly incidental to the display itself.
- b) If the sign consists of more than one section or module, all of the area, including that between sections or modules, shall be included in the computation of the sign area.
- c) With respect to two-sided, multi-sided, or three-dimensional signs, the sign surface area shall be computed by including the total of all sides designed to attract attention or communicate information that can be seen at any one time by a person from one vantage point. Without otherwise limiting the generality of the foregoing:
 - 1) The sign surface area of a double-faced, back to back sign shall be calculated by using the area of only one side of such sign, so long as the distance between the backs of such signs does not exceed three feet.
 - 2) The sign surface area of a double-faced sign constructed in the form of a "V" shall be calculated by using the area of only one side of such sign (the larger side if there is a size difference), so long as the angle of the "V" does not exceed 30 degrees and at no point does the distance between the backs of such sides exceed five feet.

151.50.07 Total Sign Area.

- a) Unless otherwise provided in this section, the total surface area devoted to all signs on any lot shall not exceed the limitations set forth in this section, and all signs except temporary signs shall be included in this calculation.
- b) Unless otherwise provided in this section, the maximum sign surface area permitted on any lot in any residential district is four (4) square feet. Signs for home occupations shall be attached flat to an exterior wall of the structure. Freestanding signs are prohibited for home occupations.
- c) Unless otherwise provided in this section, the maximum sign surface area permitted on any lot in the B-3 Neighborhood Business District is twelve (12) square feet.
- d) Subject to other provisions of this section, the maximum sign surface area permitted on any lot in the B-1 Central Business District shall be determined as follows:

There may be not more than 1.0 square foot of sign surface area per linear foot of building frontage up to a maximum of 50 square feet.
- e) Subject to the other provisions of this section, the maximum sign surface area permitted on any lot in the B-2 General Business District, B-4 Highway Business or the M-1 Industrial District shall be determined as follows:

There may not be more than 1.0 square foot of sign surface area per linear foot of lot frontage up to a maximum of one hundred (100) square feet.

- f) If a lot or building has frontage on more than one street, then the total sign surface area permitted on that lot or building shall be the sum of the sign surface area allotments related to each street on which the lot or building has frontage. However, the total sign surface area that is oriented toward a particular street may not exceed the portion of the lot's or building's total sign surface area allocation that is derived from frontage on that street.
- g) The sign surface area of any sign located on a wall of a structure may not exceed fifty (50%) percent of the total surface area of the wall on which the sign is located.

151.50.08 Freestanding Sign Surface Area.

- a) For purposes of this section, a side of a freestanding sign is any plane or flat surface included in the calculation of the total sign surface area as provided in Subsection 151.50.06. For example, wall signs typically have one side. Freestanding signs typically have two sides (back to back), although four-sided and other multi-sided signs are also common.
- b) A single side of a freestanding sign may not exceed 0.3 square feet in surface area for every linear foot of street frontage along the street toward which such sign is primarily oriented. However, in no case may a single side of a freestanding sign exceed 50 square feet in surface area if the lot on which the sign is located has less than 200 feet of frontage on the street toward which that sign is primarily oriented, 75 square feet on lots with 200 or more but less than 400 feet of frontage, and 100 square feet on lots with 400 or more feet of frontage.
- c) With respect to freestanding signs that have no discernible sides, such as spheres or other shapes not composed of flat planes, no such freestanding sign may exceed the maximum total surface area allowed under Subsection (b) for a single side of a freestanding sign.

151.50.09 Number of Freestanding Signs.

- a) Except as authorized by this section, no development may have more than one freestanding sign.
- b) If a development is located on a corner lot that has at least 100 feet of frontage on each of the two intersecting public streets, then the development may have not more than one freestanding sign along each side of the development bordered by such streets.
- c) If a development is located on a lot that is bordered by two public streets that do not intersect at the lot's boundaries (double front lot), then the development may have not more than one freestanding sign on each side of the development bordered by such streets.

151.50.10 Subdivision and Multi-Family Development Entrance Signs.

- a) At any entrance to a residential subdivision or multi-family development, there may be not more than two signs identifying such subdivision or development. A single side of any such sign may not exceed 16 square feet, nor may the total surface area of all such signs located at a single entrance exceed 32 square feet.

- b) Signs for kindergartens, day nurseries and nursing homes permitted in accordance with Sections 151.30, 151.31 and 151.32 may erect not more than two signs identifying such development. A single side of any such sign may not exceed 16 square feet, nor may the total sign surface area of all such signs located at a single entrance exceed 32 square feet.

151.50.11 Location and Height Requirements.

- a) Freestanding signs shall be located no closer than 10 feet from any street, highway or railroad right-of-way.
 - 1. Freestanding signs. Freestanding signs shall not be located less than ten (10) feet from any property line and 20 feet from any residential property line.
 - 2. Spacing. Freestanding off-premise signs and billboards shall be located a minimum of 1,200 linear feet apart as measured along the center line of the major thoroughfare. Only one sign shall occur every 1,200 linear feet.
- b) No sign may extend above any parapet or be placed upon any roof surface. This subsection shall not apply to displays, including lighting, erected in connection with the observation of holidays on the roofs of residential structures.
- c) No sign attached to a building may project more than 36 inches from the building wall, or hang less than eight (8) feet from the ground directly below the sign.
- d) In the event that an existing building canopy prevents a sign from meeting the requirements of Subsection 151.50.11 (c) above, then the Board of Adjustment may approve the use of a sign that best protects public safety and welfare.
- e) Canopy signs may extend no more than the canopy, which supports it, or to the street line, whichever is less.
- f) No sign or supporting structure may be located in or over the traveled portion of any public right-of-way.
- g) No part of a freestanding sign may exceed a height, measured from ground level, of 20 feet in the B-1 and B-3 districts, and 30 feet in the B-2, B-4 and M-1 districts.

151.50.12 Sign Illumination and Signs Containing Lights.

- a) Unless otherwise prohibited by this Article, signs may be illuminated if such illumination is in accordance with this section.
- b) No source of illumination on a sign, such as floodlights, spotlights, unshielded bulbs, etc., shall be directly visible from any public right-of-way, from any residential district, or from adjacent premises.
- c) Except as herein provided, (i) internally illuminated signs are not permissible in any residential zoning district, and (ii) where permissible, internally illuminated freestanding signs may not be illuminated during hours that the business or enterprise advertised by such sign is not open for business or in operation. This subsection shall not apply to the following signs:
 - 1) Signs that constitute an integral part of a vending machine, telephone booth, device that indicates the time, date or weather conditions, or similar device whose principal function is not to convey an advertising message.

- 2) Signs that do not exceed four square feet in area and that convey the message that a business enterprise is open or closed or that a place of lodging does or does not have a vacancy.
- d) Subject to Subsection (f), flashing illuminated tubings or flashing strips of lights that outline property lines, sales areas, doors, windows, or similar areas are prohibited.
- e) Subject to Subsection (f), no sign may contain or be illuminated by flashing or intermittent lights or lights of changing degrees of intensity, except signs indicating the time, date or weather conditions.
- f) Subsections (d) and (e) do not apply to temporary signs erected in connection with the observance of holidays.

151.50.13 Miscellaneous Restrictions and Prohibitions.

- a) No new off-premises signs, outdoor advertising and/or billboards (except those exempted from regulation or from permit requirements under Subsections 151.50.03 and 151.50.04) may be located in any district.
- b) No sign may be located so that it substantially interferes with the view necessary for motorists to proceed safely through intersections or to enter onto or exit from public streets or private roads.
- c) Signs that revolve or are animated or that utilize movement or apparent movement to attract the attention of the public, such as banners, streamers, animated display boards, pennants, flags, propellers, etc., are permitted as temporary signs, subject to Subsection 151.50.04. Without limiting the foregoing, signs that only move occasionally because of wind are not prohibited if their movement (i) is not a primary design feature of the sign, and (ii) is not intended to attract attention to the sign. The restriction of this subsection shall not apply to signs indicating the time, date, or weather conditions.
- d) No sign shall use such words as "stop," "slow," "caution," "danger," or similar admonitions, which may be confused with traffic directional signals erected by governmental agencies.
- e) No sign shall be erected so as, by its location, color, nature or message, to permit it to be confused with or obstruct the view of traffic signals or signs or so it would tend to be confused with the warning lights of an emergency or public safety vehicle.
- f) Freestanding signs shall be securely fastened to the ground or to some other substantial supportive structure so that there is virtually no danger that either the signs or the supportive structure may be moved by the wind or other forces of nature and cause injury to persons or property.
- g) No sign shall be erected, maintained, or drawn on any tree, rock or other natural feature.
- h) No sign shall be permitted which uses a series of two or more signs placed in a line parallel to a street or highway right-of-way, or in a similar fashion, all carrying a single advertising message, part of which is contained on each sign.
- i) Roof-mounted signs are prohibited from location or use within the Town of Taylorsville and its extraterritorial planning jurisdiction.

151.50.14 Maintenance of Signs.

- a) All signs and all components thereof, including without limitation supports, braces, and anchors, shall be kept in a state of good repair. With respect to freestanding signs, components (supporting structures, backs, etc.) not bearing a message shall be constructed of materials that blend with the natural environment or shall be painted a neutral color to blend with the natural environment.
- b) If a sign other than a billboard advertises a business, service, commodity, accommodation, attraction, or other enterprise or activity that is no longer operating or being offered or conducted, that sign shall be considered abandoned and shall, within 30 days after such abandonment, be removed by the sign owner, owner of the property where the sign is located or other party having control over such sign.
- c) If the message portion of a sign is removed, leaving only the supporting "shell" of a sign or the supporting braces, anchors, or similar components, the owner of the sign, the owner of the property where the sign is located or other person having control over such sign shall, within 30 days of the removal of the message portion of the sign, either replace the entire message portion of the sign or remove the remaining components of the sign. This subsection shall not be construed to alter the effect of Subsection 151.50.16, which prohibits the replacement of a non-conforming sign. Nor shall this subsection be construed to prevent the changing of the message of a sign.
- d) The area within 10 feet in all directions of any part of a freestanding sign shall be kept clear of all debris and all undergrowth more than 12 inches in height.

151.50.15 Unlawful Cutting of Trees or Shrubs.

No person may, for the purpose of increasing or enhancing the visibility of any sign, damage, trim, destroy or remove any trees, shrubs or other vegetation located:

- a) Within the right-of-way of any public street or road, unless the work is done pursuant to the express written authorization of the town or other agency having jurisdiction over the streets.
- b) On property that is not under the ownership or control of the person doing or responsible for such work, unless the work is done pursuant to the express authorization of the person owning the property where such trees or shrubs are located.
- c) In any areas where such trees or shrubs are required to remain under a permit issued under this Ordinance.

151.50.16 Nonconforming Signs.

Subject to the remaining restrictions of this section, nonconforming signs that were otherwise lawful on the effective date of this Article may be continued provided they conform to the following provisions:

- a) No person may engage in any activity that causes an increase in the extent of nonconformity of a nonconforming sign. Without limiting the generality of the foregoing, no nonconforming sign may be enlarged or altered in such a manner as to aggravate the nonconforming condition. Nor may illumination be added to any nonconforming sign.
- b) A nonconforming sign may not be moved or replaced except to bring the sign into complete conformity with this Article.

- c) If a nonconforming sign is destroyed by natural causes, it may not thereafter be repaired, reconstructed or replaced except in conformity with all the provisions of this Article, and the remnants of the former sign structure shall be cleared from the land within 30 days of destruction. For purposes of this section, a nonconforming sign is "destroyed" if damaged to the extent that the cost of repairing the sign to its former stature or replacing it with an equivalent sign equals or exceeds the value (tax value if listed for tax purposes) of the sign so damaged.
- d) The message of a nonconforming sign may be changed so long as this does not create any new nonconformities (for example, by creating an off-premise sign under circumstances where such a sign would not be allowed).
- e) If a nonconforming sign other than a billboard advertises a business, service, commodity, accommodation, attraction or other enterprise or activity that is no longer operating or being offered or conducted, that sign shall be considered abandoned and shall be removed within 30 days after such abandonment by the sign owner, owner of the property where the sign is located or other party having control over such sign.
- f) If a nonconforming billboard remains blank for a continuous period of 180 days, that billboard shall be deemed abandoned and shall, within 30 days after such abandonment, be removed by the sign owner, owner of the property where the sign is located or other person having control over such sign. For purposes of this section, a sign is "blank" if:
 - 1) It advertises a business, service, commodity, accommodation, attraction or other enterprise or activity that is no longer operating or being offered or conducted; or
 - 2) The message displayed becomes illegible in whole or substantial part; or
 - 3) The advertising copy paid for by a party other than the sign owner or promoting an interest other than the rental of the sign has been removed.
- g) The Zoning Enforcement Officer, within one year of the effective date of this Ordinance, shall make, or cause to be made, an inventory of all signs within the Town's planning jurisdiction.
- h) Signs that are found to be nonconforming must be brought into compliance with this Ordinance before a new Certificate of Occupancy may be issued pursuant to Section 151.103 of this Ordinance.

**ARTICLE XI
MANUFACTURED HOMES AND MANUFACTURED HOME PARKS**

Section 151.55 Provisions for Individual Manufactured Homes

The purpose of these regulations is to promote sound neighborhood development and appearance, protect community property values, and to preserve the integrity and character of neighborhoods. Manufactured homes are permitted on individual lots in the R-2 and R-3 zoning districts subject to the following conditions:

- 151.55.01 The lot must be recorded as an individual lot in the office of the Alexander County Register of Deeds.
- 151.55.02 If municipal utilities are not available, the Alexander County Health Department must approve the well and/or septic tank.
- 151.55.03 All yard dimensional requirements for the respective district must be met.

- 151.55.04 The lot must front a public street and said street frontage will be considered the front of the lot.
- 151.55.05 All homes shall face the road lengthwise if setbacks allow. No lot shall be subdivided for a manufactured home that would not allow for adequate road frontage to place the home lengthwise on the property.
- 151.55.06 At least two (2) off-street parking spaces shall be provided.
- 151.55.07 The manufactured home must meet or exceed the construction standards established by the U.S. Department of Housing and Urban Development (HUD) that were in effect at the time of construction. These standards became effective on July 15, 1976.
- 151.55.08 All areas not used for parking, manufactured home or required porches shall be grassed or otherwise suitably landscaped to prevent erosion.
- 151.55.09 Exterior finishes shall be in good repair and in no case shall the degree of reflectivity of the exterior siding, foundation skirting and roofing exceed that of gloss white. The exterior of the manufactured home must be comparable in composition, appearance, and durability to the exterior siding commonly used in standard residential construction, consisting of one or more of the following: (1) vinyl or aluminum lap siding; (2) cedar or other wood siding; (3) wood grain, weather resistant press board siding; (4) stucco siding; or (5) brick or stone siding. Siding shall be horizontal.
- 151.55.10 A continuous foundation enclosure, unpierced except for required ventilation and access shall be installed in accordance with State Building Codes. The enclosure shall consist of brick or concrete block, wood, or vinyl or metal fabricated for this purpose. Any wood framing for foundation skirting shall be constructed with treated lumber. All manufactured homes shall be tied down in accordance with North Carolina State Building Codes.
- 151.55.11 All manufactured homes shall have a deck, porch or a concrete patio with a minimum area of forty-eight (48) square feet. Permanent stairs shall be constructed at all exterior doors. They shall be self-supporting and anchored securely to the ground. A three foot by three foot (3' x 3') platform is required at all exits where the exterior door swings out. Decks, porches and steps must be built in compliance with the North Carolina State Building Code.
- 151.55.12 The running lights shall be removed and the hitch shall either be removed or screened with shrubbery. Shrubby shall be a height to ensure a total visual barrier of the towing apparatus within one hundred-eighty (180) days of issuance of a Certificate of Occupancy. Shrubby shall be maintained perpetually.
- 151.55.13 The pitch of the roof of the manufactured home shall have a minimum rise of three (3) feet for each twelve (12) feet of horizontal run and the roof shall be finished with a type of material that is commonly used in standard residential construction.
- 151.55.14 All roof structures shall provide an eave projection of no less than six (6) inches, which may include a gutter.
- 151.55.15 Manufactured homes may be placed on undeveloped land for temporary purposes incidental to construction or development of property within the Town of

Taylorsville or its ETJ for a period not to exceed one hundred eighty (180) days. Extensions may be granted for a period as may be determined by the Board of Adjustment, but no longer than construction shall continue. Furthermore, no manufactured home shall be placed on land until construction commences nor when there is an existing structure or facility on the property which may be suitable or designed for the purpose for which the manufactured home is sought to be used. Manufactured homes may also be used as temporary living quarters in the event of a natural disaster such as fire, flooding, etc., which would render the former residence uninhabitable.

151.55.16 Class A (Doublewide) manufactured homes are permitted in the R-2 and R-3 zoning districts. Class B (Single-wide) manufactured homes are permitted as replacement units for existing single-wide manufactured homes and are permitted in manufactured home parks.

151.55.16.01 Class A Manufactured Homes. A manufactured home meeting or exceeding the United States Department of Housing and Urban Development standards (all manufactured homes built after July 15, 1976), which is of multi-sectional or *double-wide* design. Class A Manufactured Homes shall be a minimum of 1150 square feet.

151.55.16.02 Class B Manufactured Homes. A manufactured home meeting or exceeding the United States Department of Housing and Urban Development standards (all manufactured homes built after July 15, 1976), these homes are typically referred to as *single-wide* manufactured homes. Class B Manufactured Homes shall be a minimum of 980 square feet.

151.55.17 Improvements and Phased Schedule for Improvements. All manufactured homes existing at the time of adoption of this Ordinance shall conform to the improvement requirements listed herein within the following time schedule:

- (1) All property owners shall be notified of required improvements;
- (2) Within three (3) years of notification all requirements listed herein shall be complied with;
- (3) Improvement Requirements:
 - (a) At least two (2) off-street parking spaces shall be provided
 - (b) All areas not used for parking, manufactured home or required porches shall be grassed or otherwise suitably landscaped to prevent erosion
 - (c) A continuous foundation enclosure, unpierced except for required ventilation and access shall be installed in accordance with the North Carolina State Building Code. The enclosure shall consist of brick or concrete block, wood, or vinyl or metal fabricated for this purpose. Any wood framing for foundation skirting shall be constructed with treated lumber.
 - (d) All manufactured homes shall have a deck, porch or a concrete patio with a minimum area of forty-eight (48) square feet. Permanent stairs shall be constructed at all exterior doors. They shall be self-supporting and anchored securely to the ground. A three foot by three foot (3' x 3') platform is required at all exits where the exterior door swings out. Decks, porches and steps

must be built in compliance with the North Carolina State Building Code.

- (e) The running lights shall be removed and the hitch shall either be removed or screened with shrubbery. Shrubby shall be a height to ensure a total visual barrier of the towing apparatus. Shrubby shall be maintained perpetually.

Section 151.56 Provisions for Non-Conforming Manufactured Home Parks

151.56.01 It is the purpose of this Section to provide protection for the public against hazardous existing manufactured home parks, provide a reasonably safe and sound environment for manufactured home inhabitants and to:

- (1) Promote public health, safety, welfare and orderly residential development;
- (2) Ensure that every individual manufactured home lot (stand) has safe and efficient vehicular access for residents of the home, emergency vehicles, utility and service vehicles and others needing access to the park;
- (3) Provide adequate buffering and screening to ensure privacy and protection for both the residents in the park and adjacent property owners;
- (4) Provide sufficient open space for outdoor uses essential to the manufactured home;
- (5) Ensure the furnishing of adequate water supply and sewage disposal systems;
- (6) Provide an acceptable environment for small communities of manufactured homes; and
- (7) Provide a process by which existing manufactured home parks will be improved to meet the minimum level of safety, sanitation, comfort and privacy.

Therefore, all persons operating a manufactured home park that existed at the time of adoption of this Ordinance, must submit an improvement proposal for the park (as provided herein) to be reviewed by the Planning Board and approved by the Town Board of Commissioners. Upon approval of the improvement proposal by the Town Board of Commissioners, necessary alterations to the park may begin. If the improvement proposal submitted cannot meet the development standards contained in Subsection 151.56.04 of this Ordinance because practical difficulties or unnecessary hardships prevent the carrying out the strict letter of Subsection 151.56.04, the specific improvement provision shall be submitted to the Board of Adjustment for approval in the form of a variance in accordance with Subsection 151.56.07.

151.56.02 Phased Schedule for Improvements. The improvement proposal shall conform to the improvement requirements listed herein within the following phased time schedule:

- (1) Within six (6) months of notification, the property owner shall submit, and have approved, an improvement proposal, including schematic plans for upgrading the park;
- (2) Within one (1) year of approval of an improvement proposal, all roads in the park shall be stabilized with packed gravel;
- (3) Within three (3) years of approval of an improvement proposal, all other requirements listed herein shall be complied with, excluding the paving requirements;
- (4) Within five (5) years of approval of an improvement proposal, all roads in the park shall be paved.

151.56.03

Contents of the Improvement Proposal. Application to improve and upgrade a manufactured home park shall be made to the Zoning Enforcement Officer. The application shall consist of schematic plans and documentation which include at least the following:

- (1) Name of the manufactured home park, name and address of the owner and operator;
- (2) A manufactured home park design drawn onto a plat at a scale that can be reasonably interpreted by the Town;
- (3) Date, north arrow and scale;
- (4) Boundaries of manufactured home park property to include intersections and adjacent property with the boundaries of the manufactured home park property and the names and addresses of all adjoining property owners;
- (5) The location of the following utilities: sanitary sewers, storm sewers, water distribution lines, natural gas, telephone and electric service, illustrating connections to existing systems. Plans for continued water supply and/or sewage disposal must be accompanied by letters of approval by appropriate town, county and state authorities;
- (6) Existing streets on adjoining properties and in the park, right-of-way and proposed pavement widths. If any street is proposed to intersect with a state maintained road, the plat shall be accompanied by an application for driveway approval as required by the North Carolina Department of Transportation, Division of Highway's Manual on Driveway Regulations;
- (7) Outline of all existing spaces and buildings within the manufactured home park property with lot numbers indicated;
- (8) Location of parking bays, patios, walkways, service and accessory buildings, utility easements, utility poles, and buffer and screening areas;
- (9) Method of sewage disposal in accordance with existing town, county and state regulations;
- (10) Method of water supply in accordance with existing town, county and state regulations;

- (11) Plan of electric lighting;
- (12) Development standards.

151.56.04 Development Standards.

- (1) Two-way access streets within the park shall have a pavement width of at least twenty (20) feet. One-way access streets shall have a pavement width of no less than eighteen (18) feet. Permanent dead-end streets or cul-de-sacs shall not exceed eight hundred (800) feet in length unless necessitated by topography and shall be provided with a turnaround of at least fifty (50) feet in diameter. All manufactured home spaces shall have access to a street and there shall be no less than two (2) off-street parking spaces per manufactured home space, which shall be accommodated in parking bays. Each parking space shall be provided by the owner or operator of the park. Additional access entrances may be required if the Town Board of Commissioners feel such measures would improve traffic circulation or accessibility for emergency vehicles;
- (2) All manufactured homes shall be properly underpinned and tied down in accordance with the provisions of Section 151.55.10 of this Ordinance and with the State Building Codes;
- (3) All manufactured home lots shall abut upon a paved street;
- (4) At least ten (10) percent of the gross land area of the manufactured home park shall be preserved as unobstructed open space. These areas shall be located so as to be free of traffic hazards and easily accessible to the park residents;
- (5) A densely planted buffer strip consisting of trees, shrubs, other planting, at least ten (10) feet in height shall be provided along the rear and side lines of the manufactured home park, or park property. No such buffer shall, however, be upon or extend into a street right-of-way;
- (6) The manufactured home park shall provide area lighting adequate to provide for a safe and efficient living environment and shall be installed in accordance with applicable state building codes;
- (7) In every manufactured home park and related buildings, all installations of plumbing, electrical wiring and all gas and oil appliances shall comply with the provisions of the State Building Code and any other applicable regulation of the Town of Taylorsville. In addition, the following must be met:
 - a. Each manufactured home space shall be provided with plumbing and electrical connections;
 - b. The water supply for each manufactured home shall be obtained only from faucets located inside each mobile home.
- (8) No parking bay shall be located with direct access to a public street or road;

- (9) At the discretion of the Town Board of Commissioners, the park shall have an office either as a separate structure or in connection with the dwelling quarters of the owner or operator;
- (10) The water system shall be in conformance with applicable state, county and town regulations;
- (11) Sewage disposal shall be in conformance with applicable state, county and town regulations.

151.56.05 Provisions for Individual Homes. All manufactured homes placed or replaced in manufactured home parks shall adhere to the appearance and setup requirements of Section 151.55. The placement of a manufactured home in a vacant, but existing space, or the replacement of an existing or damaged manufactured home shall only be permitted if the non-conforming park property meets (or is meeting) all of the requirements established in this Section in accordance with the phased improvement schedule. The Town may withhold zoning permits after any phase to enforce these requirements.

151.56.06 Enforcement. If after five (5) years from notification of the improvement requirements listed herein, no progress in adhering to the requirements has been made, the Town may use any and all remedies listed in Subsection 151.104 to enforce these regulations;

151.56.07 Variances. It is not the intention of this Section to eliminate or reduce the number of existing manufactured homes or spaces. Nor is it the intention of this Section to create undo hardships on individual property owners or their tenants. Therefore, because the required improvements contained herein may, in unique circumstances, pose certain hardships on the property owner, relief from one or more of these requirements may be requested from the Board of Adjustment in accordance with Subsection 151.116.03 of this Ordinance.

151.57 Provisions for Temporary Manufactured Homes

151.57.01 To authorize the location of a manufactured home (single-wide or double-wide) on the same lot as a single-family residence in the R-2 and R-3 zoning district for a period of six (6) months (renewable) so that adequate care may be available for persons with a medical hardship. The applicant must provide the following items to the Zoning Enforcement Officer/Town Planner.

151.57.02 Site plan showing the dimensions of the lot location of the single family residence, proposed location of the manufactured home and path to be used to move manufactured home.

151.57.03 Doctor's statement that the individual can be cared for at home, but is in need for supervision and that the proposed caretaker is capable of performing the needed tasks.

151.57.04 Statement from the applicant acknowledging that (1) permission to locate the manufactured home is specific to the named individual, (2) location of the manufactured home is temporary and must be renewed each six months and (3) occupancy of the manufactured home is permitted due to a medical hardship and shall not become a rental

situation.

151.57.05 The lot proposed for location of the manufactured home must be of adequate size to enable installation and removal of the manufactured home within the lot and to permit a distance of thirty (30) feet between the house on the lot (or on any other adjacent lot), a distance of twenty-five (25) feet from the manufactured home to the rear lot line, and side yards as required by the district.

151.57.05 Each manufactured home shall conform to the provisions set forth in **Article XI Section 151.55** of the Zoning Ordinance.

ARTICLE XII TELECOMMUNICATIONS TOWER ORDINANCE

Section 151.60 Definitions

As used in this Ordinance, the following terms shall have the meanings indicated:

- 151.60.01 Alternative tower structure shall mean clock towers, sculptures, bell steeples, light poles and similar alternative-design mounting structures that conceal the presence of antennas or towers and are architecturally compatible with the area.
- 151.60.02 Pre-existing towers and antennas shall mean any tower or antenna on which a permit has been properly issued prior to the effective date of this Ordinance.
- 151.60.03 Telecommunication Tower shall mean any structure that is designed and constructed primarily for the purpose of supporting one or more antennas, including self-supporting lattice towers, guy tower or monopole towers. The term includes radio and television transmission towers, personal communications service towers (PCS), microwave towers, common-carrier towers, cellular telephone towers, alternative tower structures, and the like. This definition does not include any structure erected solely for a residential, non-commercial individual use, such as television antennas, satellite dishes or amateur radio antennas.

Section 151.61 General Guidelines and Requirements

- 151.61.01 Purpose and Goals. The purpose of this Ordinance is to establish general guidelines for the siting of towers and antennas. The goals of this Ordinance are to: (i) encourage the location of towers in non-residential/non-historical areas and minimize the total number of towers throughout the community, (ii) enhance the ability of the providers of telecommunications services to provide such services to the community quickly, effectively and efficiently, (iii) encourage strongly the joint use of new and existing tower sites, (iv) encourage users of towers and antennas to locate them, to the extent possible, in areas where the adverse impact on the community is minimal, and (v) encourage users of towers and antennas to configure them in a way that minimizes the adverse visual impact of the towers and antennas.
- 151.61.02 Principal Use. Telecommunication towers shall be considered principal uses. Alternative tower structures may be considered principal or accessory uses. For

purposes of determining whether the installation of a tower or antenna complies with district development regulations, including, but not limited to, setback requirements, lot size and coverage requirements, and other such requirements, the dimensions of the entire lot shall control, even though the antennas or towers may be located on leased parcels within such lots.

Section 151.62 Administrative Approved Uses

The following uses may be approved by the Zoning Enforcement Officer after conducting an administrative review:

- 151.62.01 Installing an antenna in any zoning district on an existing structure other than a tower (such as a building, sign, light pole, water tower, utility pole or other free-standing, non-residential structure) that is more than fifty (50) feet in height, so long as such addition does not add more than twenty (20) feet to the height of the existing structure.
- 151.62.02 Installing an antenna in any commercial or industrial zoning district on an existing non-residential structure other than a tower (such as a building, sign, light pole, water tower, utility pole or other free-standing, non-residential structure) that is less than fifty (50) feet in height so long as such addition does not add more than twenty (20) feet to the height of the existing structure.
- 151.62.03 Installing an antenna on an existing tower of any height, including a pre-existing tower and further including the placement of additional buildings or other supporting equipment used in connection with said antenna, so long as the addition of said antenna adds no more than twenty (20) feet to the height of said existing tower.
- 151.62.04 Locating any alternative tower structure in any zoning district if in the judgment of the Zoning Enforcement Officer, it is in conformity with the goals set forth in Section 151.61 of this Ordinance.
- 151.62.05 Replacing an existing tower that adds no more than 20 feet to the overall height of the existing structure.

Section 151.63 Telecommunication Towers Conditional Use Criteria

Communication companies are encouraged to locate telecommunication antennae on or in structures other than a tower. Such structures may include church steeples, transmission line towers, utility/light poles, water towers, etc. Where such facilities are not available, co-location of facilities is encouraged.

The Taylorsville Board of Adjustment may grant a conditional use permit when a new tower is proposed to be sited; a determination of whether the location will provide minimal level of coverage vs. maximum level of coverage will be taken into consideration. The following standards shall be used in the approval of the siting of new towers:

- 151.63.01 Evidence that the applicant has investigated the possibilities for locating the proposed facilities on an existing tower where the minimal level of coverage can be provided. Such evidence shall consist of:
 - a. A summary explanation of why the applicant believes the proposed facility cannot be located on an existing tower.

- b. A summary explanation of why the applicant believes that the use of an alternative tower structure is not possible.
- c. Provision of sound engineering evidence demonstrating that location in the proposed district is necessary in regards to the interest of public safety or is a practical necessity.

151.63.02 Locating a tower or antenna, including the placement of additional buildings or other supporting equipment used in connection with said tower or antenna may be allowed in the B-1 Central Business, B-2 General Business, B-4 Highway Business and the M-1 Light Industrial and M-2 Heavy Industrial zoning districts provided that the following requirements are also met:

- a. Evidence must be provided which establishes that the communications tower is structurally designed to support at least one (1) additional user and the application includes a statement that the owner of the tower is willing to permit other user(s) to attach communication facilities, on a commercially reasonable basis, which do not interfere with the primary purpose of the tower. The tower owner may require that such other users agree to negotiate regarding reasonable compensation for any liability, which may result from such attachment. The site plan shall show a location for at least one (1) equipment building in addition to that proposed for use by the applicant. Priority for co-location on the proposed tower shall be given to antennas that serve a public safety need for the community.
- b. In order to provide spatial separation and create a visual block from adjacent properties and streets, a buffer shall be installed and perpetually maintained around the perimeter of all improvements on the site, including the tower and guy anchors, any ground buildings or equipment and security fence. The tower's guy anchors may be screened or fenced separately in order to comply with the requirements of this subsection. Buffering shall be required as follows:
 - i. A ten (10) foot buffer shall be provided between the fenced area(s) of the development and the property or lease lines.
 - ii. The planting shall consist of evergreen trees and evergreen shrubs. Trees shall be planted along the full length of the buffer strip in a triangular pattern with maximum spacing of twenty-five (25) feet on centers. The minimum height for trees shall be six (6) feet in height at planting and they shall have an expected minimum maturity height of thirty-five (35) feet under normal growing conditions. There shall also be at least one row of dense shrubs, spaced not more than eight (8) feet on centers. Shrubs shall be a minimum of two (2) feet in height at planting and shall have an expected maturity height of eight (8) feet under normal growing conditions. It is the intent of this section to encourage the use of existing vegetation in whole or in part to substantially meet this requirement.
 - iii. Buffer requirements may be waived upon a finding that the existing topography or existing screening materials on site screen the property as effectively as the buffering required in (ii); or that the installation of new screening materials would be impractical or would serve no useful purpose (such waiver may also include situations when the type of non-residential adjoining use would not warrant screening); provided however, that the spirit and intent of this section are preserved. This

paragraph shall not be construed to relieve the requirements of establishing screening for towers to be located adjacent to vacant properties or along any public street.

- c. The base of the tower and each guy anchor shall be surrounded by a security fence or wall at least eight (8) feet in height unless the tower and all guy anchors are mounted entirely on a building over eight (8) feet in height. The tower's guy anchors may be screened or fenced separately in order to comply with the requirements of this subsection.
- d. No outside storage shall be allowed on any telecommunication facility site.
- e. Associated buildings shall not be used as a place of employment for any worker. This provision does not prohibit the periodic maintenance or periodic monitoring of equipment and instruments.
- f. The telecommunications facility shall meet all applicable Federal Aviation Administration (FAA) standards and shall not restrict or interfere with air traffic or travel from or to any existing or proposed airport. Any lighting shall not project onto surrounding residential property.
- g. The minimum lot size requirement shall be in accordance with the zoning district where the facility is proposed to be located or the setback requirements of subsection (k), whichever is greater.
- h. The color of the tower shall be neutral, except to the extent required by Federal Law, so as to minimize its visual impact.
- i. In order to protect the public from unnecessary exposure to electromagnetic radiation, the tower owner must provide documentation, such as a signed affidavit, indicating that the power density levels do not exceed levels certified by the FCC.
- j. No commercial advertising shall be allowed on the facility's site.
- k. The setback of the base of the tower from all adjacent property and street right-of-way lines shall be one (1) foot for each one (1) foot in height. This setback may be reduced by the Taylorsville Board of Adjustment upon a finding that a failure to grant a setback reduction would have the effect of prohibiting the provision of the telecommunication services, that the reduction serves the general intent and purpose of this section and that the reduction will not substantially interfere with or injure the rights of others whose property would be affected by the reduced setback. In no case shall the setback be reduced to less than fifty percent (50%) of the tower height. In no case shall the setback be less than those required by the underlying zoning district. Said setback reductions shall only be allowed upon a professional engineering certification which states that the structure's construction will cause the tower to crumble inward so that in the event of a collapse no damage to structures on adjacent lots will result.
- l. The maximum height of all towers is two hundred (200) feet.
- m. Notice shall be provided to the zoning enforcement officer when the tower is placed out of service. Towers, which are not used for a period of six (6) months or more, shall be removed by the owner within one hundred twenty days of receipt of notification to that effect.

**ARTICLE XIII
EXCEPTIONS AND MODIFICATIONS**

Section 151.65 Lot of Record

Where the owner of property consisting of one (1) or more lots of record in any district at the time of adoption of this Ordinance or his successor in title does not own sufficient contiguous land to conform to the minimum area and width requirements of this Ordinance, such property may be used as a building site, provided that the requirements of the district are complied with or a variance is obtained from the Board of Adjustment.

Notwithstanding the foregoing, whenever two or more adjoining vacant lots of record are in single ownership at any time after the adoption of this Ordinance and such lots individually have less area or width than the minimum requirements of the district in which such lots are located, such lots shall be considered as a single lot or several lots which meet the minimum requirements of this Ordinance for the district in which such lots are located.

Every lot to be built upon shall abut, by at least twenty-five (25) feet, a public street or other public way, and no dwelling shall be placed or built upon a lot that does not abut upon a public street or other public way by the same distance except as provided in Section 151.71.

Section 151.66 Front Yard Setbacks for Dwellings

The front yard setback requirements of this Ordinance for dwellings shall not apply to any lot where the average setback of existing buildings located wholly or partially within one hundred (100) feet on either side of the proposed dwelling and on the same side of the same block and use district as such lot is less than the minimum required front yard depth. In such case the setback on such lots may be less than the required setback but not less than the average of the existing setbacks on the aforementioned lots, or a distance of ten (10) feet from the street right-of-way line, whichever is greater.

Section 151.67 Height Limitations

The height limitations of this Ordinance shall not apply to church spires, belfries, cupolas and domes not intended for human occupancy; monuments, water towers, chimneys, smokestacks, conveyors, flag poles, masts, serials and similar structures except as otherwise noted in the vicinity of airports. Telecommunications towers shall adhere to the height restrictions of Article XII.

Section 151.68 Visibility at Intersections

On a corner lot in any district no planting, structure, fence, wall or obstruction to vision more than three (3) feet in height shall be placed or maintained within the triangular area formed by the intersecting street right-of-way lines and a straight line connecting points on said street lines each

of which is twenty-five (25) feet in distance from the point of intersection. Utility poles and street signs shall be permitted if located in a non-obstructive position.

Section 151.69 Corner Lots

In any residential district the side yard requirements for corner lots along the side street line shall have an extra width of ten (10) feet. Accessory buildings shall have an extra width of ten (10) feet added to the sideyard setback requirement. In addition, no wall, fence, or shrubbery shall be erected, placed, planted, or maintained on any lot, which unreasonably obstructs or interferes with traffic visibility on a curve or street intersection.

Section 151.70 Location of Accessory Buildings

On any lot, accessory buildings shall be located in the rear yard, shall not cover more than thirty percent (30%) of any required rear yard and shall be at least five (5) feet from any other building on the same lot and at least twenty (20) feet from any buildings used for human habitation on adjoining lots. All parts of the building, including the footings and roof overhang, shall be a minimum of ten (10) feet from any lot line; and further provided that in the case of corner lots such buildings or structures shall be set back at least twenty (20) feet from any side line right-of-way line. Garages and carports used for the primary purpose of vehicular storage shall be permitted in the side yard provided that all parts of the building shall be a minimum of ten (10) feet from the side lot line. Vehicular canopies for gas pumps may project into a required front setback to within five feet of the right-of-way line, provided that such structures do not extend into required buffer or side yard setback areas.

Section 151.71 Provisions for Landlocked Lots

Existing landlocked lots within the residential zoning district, defined as a lot that does not abut a public street and therefore does not meet the requirements that the lot have a minimum frontage on a public street of twenty-five (25) feet, may nevertheless be developed for one single family dwelling unit if the lot otherwise meets the zoning requirements of the zone in which the lot is located and provided that the lot has a recorded easement of ingress and egress to and from a public street which is appurtenant to the lot and which meets the following requirements:

- 151.71.01 A private easement with a minimum continuous width of twenty-five (25) feet is acquired from intervening property owners;
- 151.71.02 An easement with a minimum continuous width of less than twenty-five (25) feet may be permitted only in situations where an easement with a minimum continuous width of twenty-five (25) feet would create a nonconformity with respect to this Ordinance;
- 151.71.03 The recorded documents creating the easement shall specify that public service, utility and emergency personnel and vehicles shall have freedom of ingress and egress from the landlocked property;
- 151.71.04 The recorded documents shall also specify that public utilities (water, sewer, electricity, telephone, cable, etc.) may be located within the easement;
- 151.71.05 The recorded documents shall include a maintenance agreement specifying the party responsible for maintaining the easement and its traveled surface;
- 151.71.06 The easement must have an all weather surface of gravel, concrete or asphalt with a minimum continuous width of ten (10) feet to ensure access of public service, utility, and emergency personnel and vehicles;

- 151.71.07 Easements existing prior to the adoption of this Ordinance with widths less than twenty-five (25) feet may be used to access landlocked lots provided that such easements abut a dedicated street;
- 151.71.08 Subdivision of landlocked parcels will require a publicly dedicated street constructed to Town Standards and must meet all requirements of the Town's Subdivision Regulations.

Section 151.72 Vested Rights

The purpose of this section is to implement the provisions of NCGS 160A-385.1 pursuant to which a statutory zoning vested right is established upon approval of a site specific development plan.

- 151.72.01 Definitions.
 - a. Approval Authority. The Board of Commissioners, Planning Board, Board of Adjustment, Town Clerk, Zoning Enforcement Officer, or other board or official designated by this Ordinance as being authorized to grant the specific zoning or land use permit approval that constitutes a site specific development.
 - b. Site Specific Development Plan. A plan of land development submitted to the Town of Taylorsville for purposes of obtaining one of the following zoning or land use permits or approvals:
 - 1. Zoning Permit, as provided by Section 151.102 of this Ordinance.
 - 2. Conditional Use Permit, as provided by Subsection 151.116.02 of this Ordinance.
 - 3. Variance, as provided by Subsection 151.116.03 of this Ordinance.
 - 4. Minor Subdivision approval.
 - 5. Major Subdivision approval.

Notwithstanding the foregoing, neither a variance, a sketch plan, nor any other document that fails to describe with reasonable certainty the type and intensity of use for a specified parcel or parcels of property shall constitute a site specific development plan.

- c. Zoning Vested Rights. A right pursuant to NCGS 160A-385.1 to undertake and complete the development and use of property under the terms and conditions of an approved site specific development plan, provided that such development shall begin within two (2) years following issuance of the zoning vested right. Under the terms of this Ordinance, a two (2) year zoning vested right shall be established upon issuance of a zoning permit.

Section 151.73 Group Multi-Family Developments

Group Multi-Family Developments are permitted in the R-2 zoning district subject to the following requirements.

- 151.73.01 Minimum plot or overall project area: 1 acre

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| 151.73.02 | Minimum lot area per dwelling unit: | 3000 square feet |
| 151.73.03 | Minimum front yard depth for each building: | 35 feet |
| 151.73.04 | Minimum rear yard depth for each building: | 30 feet |
| 151.73.05 | Minimum side yard depth for each building: | 30 feet |
| | When adjacent to a private street or a side lot line: | 15 feet |
| | When adjacent to another building in the project area: | 20 feet |
| 151.73.06 | Minimum distance between buildings: | 40 feet |
| 151.73.07 | Maximum area of project area covered by all buildings: | 30% |
| 151.73.08 | Height of buildings shall not exceed thirty-five (35) feet unless the depth of the front and total width of the side yards required are increased by one (1) foot for each two (2) feet or fraction thereof over the thirty-five (35) foot height limit. | |
| 151.73.09 | Off-street parking shall be provided as required by Article IX of this Ordinance. | |
| 151.73.10 | A preliminary design layout must be submitted to the Board of Adjustment with twelve (12) copies for review before the submission of final design. | |
| 151.73.11 | A final corrected design shall be approved by the Board of Adjustment before a zoning permit may be issued. Special conditions may be recommended for the project plan by the Board of Adjustment and planted buffer strips or suitable substitutions may be required when needed to maintain the integrity of the neighborhood. These shall be completed before occupancy will be allowed. | |
| 151.73.12 | Design standards for streets shall conform to the general requirements and minimum standards of design of the Town of Taylorsville. | |

Section 151.74 Group Commercial and Industrial Developments

In the case of two (2) or more buildings to be constructed on a plot of ground at least two (2) acres not subdivided into the customary streets and lots and which will not be subdivided, the application of the terms of this Ordinance may be varied by the Board of Adjustment in a manner that will be in harmony with the character of the neighborhood provided:

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| 151.74.01 | Such uses are limited to those permitted within the zoning district in which the project is located. In no case shall the Board of Adjustment authorize a use prohibited in the district in which the project is to be located. | |
| 151.74.02 | The overall intensity of land use is no higher and the standard of open space is no lower than that permitted in the district in which the project is located. | |
| 151.74.03 | The distance of any building to the nearest property line shall meet the front, rear and side yard requirements of the district in which the project is located. | |
| 151.74.04 | The site plan shall conform to all applicable requirements of the Town's Subdivision Regulations for street design, drainage and plat design. | |

- 151.74.05 The building heights shall not exceed the height limits permitted in the district in which the project is located.
- 151.74.06 If the property lies within or abuts upon a residential district, there shall be a buffer along the rear and/or side property lines abutting the residential lots.
- 151.74.07 All parking, loading and sign requirements are subject to the applicable provisions of the respective zoning districts and other sections of this Ordinance.

Section 151.75 Planned Unit Development

The purpose of the planned unit development is to encourage the development of living environments which meet the needs of the people who live in them by providing certain development privileges in exchange for preplanning and design considerations. The planned unit development provides flexibility in utilizing new development concepts and in introducing variety into neighborhoods by encouraging mixed uses, variable lot size, and environmentally sensitive design which promotes the conservation of open space. The Board of Adjustment may approve this form of development in the districts that allow it as a permitted or conditional use, provided that:

- 151.75.01 At the time of application for a planned unit development, all land, structures and other real property shall be in single or joint ownership of whatever form, or the petitioner shall have the right to acquire ownership under a valid option, and this information shall be included in the submission of an application for a planned unit development.
- 151.75.02 A planned unit development shall be located on a site containing at least five (5) contiguous acres.
- 151.75.03 Land may be used and buildings erected, altered, enlarged or used to include all uses permitted within the applicable zoning district. Nonresidential uses permitted in the B-3, Neighborhood Business, district shall be permitted in a planned unit development containing at least one hundred (100) dwelling units.
- 151.75.04 The development shall be in full compliance with all density and lot coverage limitations and requirements of the zoning district in which the development is to be located.
- 151.75.05 Development Standards
 - A) Buffer Strip
 - i) Width and Location. A minimum ten (10) foot wide buffer strip shall be provided around the entire perimeter of the zoning lot, except:
 - a) at such location where single family residential lots within the planned unit development meet or exceed the minimum lot requirements of a residential zoning district adjacent to and outside the planned unit development;
 - b) where the zoning lot is adjacent to a floodplain at least sixty (60) feet wide;
 - c) where an internal residential lot line lies at least one hundred (100) feet from an adjacent zoning lot;

d) where open space or a passive recreation area at least thirty (30) feet wide lies next to the adjacent zoning lot.

e) Planned unit developments shall require one tree per lot in the front yard.

ii) Access Drives. No loading space, parking space, or access drive to a parking space shall be permitted within the required buffer strip, with the following exceptions:

a) An access drive to off-street parking serving a single family detached dwelling, whether inside or outside of a carport or garage attached to or detached from such dwelling. Such access drives shall not constitute off-street parking as required in Article IX.

b) Drives not longer than fifty (50) feet which provide access to the planned unit development.

B) Required Parking

i) Off-Street Parking. Off-street parking shall be provided in compliance with Article IX, except that the parking requirements may be met through group parking located on commonly owned land.

ii) Special Accommodations. Special accommodations for recreational vehicles, including boats, may be provided in group parking areas. Such special parking areas shall be designated and screened from adjacent residential uses.

C) Pedestrian Access

Pedestrian and other modes of nonvehicular movement shall be provided and separated from vehicular traffic, and shall provide a safe connection between major uses on the site. All new planned unit developments shall provide sidewalks, greenways or bikeways at a ratio of one linear foot of sidewalk, greenway or bikeway per linear, centerline foot of public streets when considering the planned unit development or subdivision as a whole. Alleys associated with minor subdivisions are exempt from linear foot calculations. The exact location and type of pedestrian connection shall be determined during the site plan and subdivision review process with an emphasis on the functional relationship of the required connection to destination points and other existing or planned pedestrian segments. All pedestrian segments shall meet or exceed ADA standards and shall otherwise be constructed of concrete, asphalt or other all-weather surface.

D) Nonresidential Uses

Nonresidential uses as permitted by Section 151.75.03 shall meet the following requirements:

i) Orientation. A nonresidential use in a planned unit development shall be designed and located to serve primarily the residents of the planned unit development. Such use shall be located on and shall face an internal street of the development, and shall not access directly on a street outside the planned unit development.

ii) Amount. No more than twenty-five (25) square feet of gross floor area per dwelling unit, up to a maximum of twenty thousand (20,000) square feet, shall be permitted for nonresidential uses in the planned unit development.

iii) Size of Nonresidential Structures. Structures containing only nonresidential uses shall be limited to a gross floor area no greater than fifteen hundred (1,500) square feet each.

iv) Setback. Any nonresidential uses, including any supporting parking area, shall be set back a minimum of three hundred (300) feet from residentially zoned property or the public right-of-way of roads other than a major thoroughfare, and a minimum of one hundred fifty (150) feet from the public right-of-way of a major thoroughfare.

E. Lot Dimensional Requirements and Spacing of Structures

The lot and setback dimensional requirements of the zoning district for individual lots within the planned unit development are waived. Minimum distances between townhouses and multifamily structures shall be thirty (30) feet. Minimum distances between single family and duplex home structures shall be as follows:

i) Front facing front. The minimum distance between the front wall of structures oriented so as to face each other shall be not less than thirty (30) feet from one another, provided neither shall be closer than ten (10) feet from the nearest right-of-way line of a public street.

ii) Rear facing rear. Dwellings oriented back to back shall be subject to the following provisions:

a) The minimum distance between rear walls of the dwellings shall be no less than thirty (30) feet.

b) Carports or garages shall be permitted in the intervening space between dwellings oriented back to back provided:

1) Carports or garages shall be no more than one story and of a total dimension not greater than twenty-four (24) feet by twenty-four (24) feet, whether attached or detached from the dwelling.

2) The rear walls of two carports or garages oriented back to back shall not be closer than six (6) feet.

3) The rear wall of the carport or garage of one dwelling shall be no less than thirty (30) feet from the rear wall of another dwelling to which it is oriented back to back. For the purpose of this provision, the rear wall of the carport or garage shall be that wall opposite the front wall of the dwelling it serves, whether or not it shall be the entrance wall of such carport or garage.

iii) Front facing side.

The minimum distance between the front wall of the structure and the side wall of another structure shall not be less than fourteen (14) feet.

- iv) Side facing side. The minimum distance between side walls of structures shall not be less than fourteen (14) feet.
- v) Rear facing side. The minimum distance between the rear of a structure and the side of another structure shall not be less than fourteen (14) feet.
- vi) Rear facing front. The minimum distance between the front wall of one structure and the rear wall of another structure shall not be less than thirty (30) feet, provided neither shall be closer than ten (10) feet from the nearest right-of-way line of a public street.

F. Common Recreation Areas

Common recreation areas shall be required for planned unit developments of forty (40) units or greater in accordance with the following provisions:

- i) A minimum of one hundred (100) square feet per unit must be devoted to common recreation areas;
- ii) The total common recreation area may be divided into areas not less than four thousand (4,000) square feet each where the average length of the space does not exceed twice the average width;
- iii) Common recreation areas shall be easily accessible by pedestrian walkways so they can be conveniently and safely reached and used;
- iv) Common recreation areas shall be constructed on land that is well drained, and is otherwise capable of serving the purposes intended;
- v) Common recreation areas shall be attractively landscaped and provided with sufficient natural or constructed screening to minimize any negative impacts upon adjacent residences within the development;
- vi) Common recreation areas shall not include streets, access easements, rights-of-way, parking areas, required perimeter buffer strips or street yards or required building setbacks; shall be closed to motor vehicle traffic except for maintenance and service vehicles; and, shall not be located over a septic system drainage field;
- vii) Common recreation areas shall be improved and maintained for the purposes intended.

G. Common Open Space

- i) Area. Common open space shall not be less than ten percent (10%) of the land area of the planned unit development, excluding dedicated public rights-of-way.
- ii) Location. The open space requirement required in Subsection 151.75.05 (G) (i) above and which is held by a non-profit homeowner's association shall adjoin the planned unit development for at least fifty percent (50%) of the periphery of such required open space.

- iii) Character. Common Open Space, defined as open space within a development not in individually owned lots, which is designed and intended for the common use or enjoyment of the residents of the development, shall include the following three (3) types of open space: environmental, scenic and internal. Environmental shall include riparian areas, steep slopes and, when feasible, other significant natural areas. Scenic shall include sensitive view corridors from roads, parks and other public area. Internal shall include pocket parks, street terminations and other prominent open space features intended to be readily available to residents.

H. Responsibility for Common Open Space and Amenities

Land not to be held in private ownership shall be owned by a nonprofit corporation in which all owners of property within the development have automatic membership rights and assessment obligations for the maintenance of these areas. These automatic membership rights and assessment obligations shall be covered by covenants running with the land and other contractual provisions as to insure the proper maintenance of all commonly owned areas, and shall include provision for liens against the individual properties and legally enforceable personal obligations on the part of the individual property owners in the development. Such covenants shall be recorded in the office of the Register of Deeds and such contractual rights and obligations shall be established prior to the issues of a building permit.

I. Platting Requirements

All planned unit developments shall meet the requirements of the Taylorsville Subdivision Regulations. In addition, prior to a permit being issued for the construction of any building, there shall have been recorded in the office of the Register of Deeds, a plat of the property or section thereof, showing: easement and right-of-way widths, street widths, the actual or approximate location of single family lots, commonly owned tracts, and lots and buildings to be occupied by other uses.

151.75.06 All streets and parking areas shall be constructed and paved according to the standards of the Town of Taylorsville.

151.75.07 The procedure for approval of a planned unit development shall be in accordance with the applicable provisions of the Town's Subdivision Regulations. The preliminary plan for the proposed planned unit development shall be submitted to the Board of Adjustment for its review. The preliminary plan shall show how the requirements of Sections 151.75.01 through 151.75.07 will be met. The Board of Adjustment may request design changes. Such changes may include, but not be limited to, provisions for additional utilities, drainage, landscaping, lighting, streets and accessways. The applicant must resubmit the plan, within 60 days, to the Board of Adjustment if changes were requested. Failure of the Board of Adjustment to act on the plan within 60 days following the date of resubmittal shall constitute final approval. An approved project must be started within twelve (12) months after final approval and must be completed within a reasonable time. Such time shall be agreed upon between the Board of Adjustment and the applicant/developer.

The cluster development allows for buildings to be concentrated together in specific areas to minimize infrastructure and development costs while achieving the allowable density. It allows for the preservation of natural open space for recreation, common open space and the preservation of environmentally sensitive features. Cluster developments may be approved by the Board of Adjustment provided the following criteria are met:

- 151.76.01 Public water and sewer facilities shall be available to serve cluster subdivisions;
- 151.76.02 The tract of land devoted to a cluster subdivision shall be a minimum of four (4) contiguous acres;
- 151.76.03 The total number of lots and dwelling units shall not exceed the number that would be permitted in conformance with the normal minimum lot size requirements for the R-15 district;
- 151.76.04 Thirty-five percent (35%) of the balance of the original lot size must be preserved as common open space, accessible by all reduced building sites. Up to fifty percent (50%) of the common open space may be steep slopes, streams, ponds, watercourses and floodplain or may be reserved for public use;
- 151.76.05 Access arrangements to open spaces or common areas shall be carefully designed and located to enable perpetual maintenance and accessibility.
- 151.76.06 Minimum lot size: 10,000 square feet with water and sewer
- 151.76.07 Minimum lot width: 70 feet
- 151.76.08 Minimum front yard: 20 feet
- 151.76.09 Minimum side yard: 10 feet
- 151.76.10 Minimum rear yard: 20 feet
- 151.76.11 Open space or common areas within a cluster development may be offered for dedication to the public at the time of application. The Board of Commissioners may accept such dedication upon finding that the size, location, or maintenance of such open space or common area or the availability of public open space would make public use desirable or necessary.

Open space not dedicated to the public shall be protected by legal arrangements sufficient, such as a homeowner's association, to assure its maintenance and preservation for whatever purpose it is intended. The provisions for a homeowner's association are meant to ensure that a viable association is established with authority to obtain sufficient resources to maintain the open space and any of its recreational facilities. The homeowner's association is required to incorporate in order to ensure its future existence.
- 151.76.12 Street construction shall meet all requirements set forth in the Town's subdivision regulations.

**ARTICLE XIV
WATERSHED PROTECTION**

Section 151.80 Authority and Enactment

The Legislature of the State of North Carolina in the General Statutes has, in Chapter 160A, Article 19, Planning and Regulation of Development, and in Chapter 143, Article 21, Watershed Protection Rules, delegated the responsibility or directed local government units to adopt regulations designed to promote the public health, safety and general welfare of its citizenry. The Town of Taylorsville, North Carolina ("the Town"), does hereby ordain and enact into law the following articles as the Watershed Protection Ordinance of Taylorsville, North Carolina.

Section 151.81 Jurisdiction

The provisions of this Ordinance shall apply within the overlay zones designated as Public Water Supply Watershed as defined and established on the "Official Zoning Map of Taylorsville, North Carolina" ("the Zoning Map"), such overlay zones being adopted simultaneously herewith. The Zoning Map and all explanatory matter contained thereon accompanies and is hereby made a part of this Article.

Section 151.82 Exceptions to Applicability

- (A) Development activities that do not require a Sedimentation/Erosion Control Plan are exempt from the requirements of this Article.
- (B) Existing development, as defined in this Article, is not subject to the requirements of this Article. Existing development is defined as those projects that are built or those projects that at a minimum have established a vested right under North Carolina zoning law as of the effective date of this Ordinance based on at least one of the following criteria:
 - (1) having expended substantial resources (time, labor, money) based on a good faith reliance upon having received a valid local government approval to proceed with the project;
 - (2) having an outstanding valid building permit as authorized by NCGS 153A-344.1 and NCGS 160A-385.1; or
 - (3) having an approved site specific or phased development plan as authorized by NCGS 153A-344.1 and NCGS 160A-385.1.
- (C) Expansions to structures classified as existing development must meet the requirements of this Ordinance; however, the built-upon area of the existing development is not required to be included in the density calculations.
- (D) Reconstruction of Buildings or Built-Upon Area. Any existing building or built-upon area not in conformance with the restrictions of this Ordinance that has been damaged or removed may be repaired and/or reconstructed, except that there are no restrictions on single-family residential redevelopment, provided:
 - (1) Repair or reconstruction is initiated within twelve (12) months and completed within two (2) years of such damage.

- (2) The total amount of space devoted to built-upon area may not be increased unless stormwater control that equals or exceeds the previous development is provided.
- (E) If a non-conforming lot of record is not contiguous to any other lot owned by the same party, then that lot of record shall not be subject to the development restrictions of this Ordinance if it is developed for single family purposes (and zoned for this use).

Section 151.83 Cluster or Planned Unit Development

Cluster or Planned Unit Development is allowed in all Watershed Areas under the following conditions:

- (A) Development activities shall comply with the respective requirements of Sections 151.75 and 151.76 of this Ordinance.
- (B) All built-upon areas shall be designed and located to minimize stormwater runoff impact to the receiving waters and minimize concentrated stormwater flow.
- (C) The remainder of the tract shall remain in a vegetated or natural state. The title to the open space area shall be conveyed to an incorporated homeowners association for management; to a local government for preservation as a park or open space; or to a conservation organization for preservation in a permanent easement. Where a property association is not incorporated, a maintenance agreement shall be filed with the deeds.

Section 151.84 Buffer Areas Required

- (A) A minimum one hundred (100) foot vegetative buffer is required for all new development activities that exceed the low density option; otherwise a minimum thirty (30) foot vegetative buffer for development activities in the protected area is required along all perennial waters, and a minimum one hundred fifty (150) foot vegetative buffer for development activities in the critical area is required along all perennial waters indicated in the most recent versions of USGS 1:24,000 (7.5 minute) scale topographic maps or as determined by local studies. Artificial streambank stabilization is permitted.
- (B) No new development is allowed in the buffer except for water dependent structures and public projects such as road crossings and greenways and their appurtenances where no practical alternative exists. These activities should minimize built-upon surface area, direct runoff away from the surface waters and maximize the utilization of stormwater Best Management Practices.

Section 151.85 Watershed Administrator and Duties Thereof

The Watershed Administrator shall be the same as the Zoning Enforcement Officer as described in this Ordinance. It shall be the duty of the Watershed Administrator to administer and enforce the provisions of this Article as follows:

- (A) The Watershed Administrator shall issue Zoning Permits and Certificates of Occupancy as provided in this Ordinance. A record of all permits shall be kept on file and shall be available for public inspection during regular office hours of the Administrator.
- (B) The Watershed Administrator shall serve as staff to the Planning Board, Watershed Review Board/Board of Adjustment and Town Board of Commissioners.

- (C) The Watershed Administrator shall keep records of all amendments to the local Water Supply Watershed Protection Ordinance and shall provide copies of all amendments upon adoption to the Division of Water Quality.
- (D) The Watershed Administrator is granted the authority to administer and enforce the provisions of this Article, exercising in the fulfillment of his responsibility the full zoning and police power of the Town of Taylorsville. The Watershed Administrator may enter any building, structure or premises, as provided by law, to perform any duty imposed upon him by this Article.
- (E) The Watershed Administrator shall keep a record of variances to the local Water Supply Watershed Protection Ordinance. This record shall be submitted each calendar year to the Division of Water Quality on or before January 1st of the following calendar year and shall provide a description of each project receiving a variance and the reasons for granting the variance.

Section 151.86 Appeal from the Watershed Administrator

- (A) Any order, requirement, decision or determination made by the Watershed Administrator may be appealed to and decided by the Board of Adjustment.
- (B) An appeal from a decision of the Watershed Administrator must be submitted to the Board of Adjustment within thirty (30) days from the date the order, interpretation, decision or determination is made. All appeals must be made in writing stating the reasons for appeal. Following submission of an appeal, the Watershed Administrator shall transmit to the Board all papers constituting the record upon which the action appealed from was taken.
- (C) An appeal stays all proceedings in furtherance of the action appealed, unless the officer from whom the appeal is taken certifies to the Board after the notice of appeal has been filed with him, that by reason of facts stated in the certificate, a stay would in his opinion cause imminent peril to life or property. In such case, proceedings shall not be stayed otherwise than by a restraining order which may be granted by the Board or by a court of record on application of notice of the officer from whom the appeal is taken and upon due cause shown.
- (D) The Board shall fix a reasonable time for hearing the appeal and give notice thereof to the parties and shall decide the same within a reasonable time. At the hearing, any party may appear in person, by agent or by attorney.

Section 151.87 Establishment of a Watershed Review Board

There shall be and hereby is created the Watershed Review Board consisting of the same membership as the Taylorsville Town Board of Adjustment. Terms for members of the Watershed Review Board shall coincide with the membership terms for the Town Board of Adjustment.

Section 151.88 Powers and Duties of the Watershed Review Board/Board of Adjustment

- (A) The Watershed Review Board shall be responsible for reviewing and hearing all major and minor watershed variance cases, and shall proceed as provided in Article XV of the Zoning Ordinance for zoning variances when reviewing all watershed variance cases.
- (B) If the application calls for the granting of a **major watershed variance**, and if the Watershed Review Board decides in favor of granting the major watershed variance, the

Board shall prepare a preliminary record of the hearing with all deliberate speed. The preliminary record of the hearing shall include:

- (1) The variance application;
- (2) The hearing notices;
- (3) The evidence presented;
- (4) Motions, offers of proof, objections to evidence, and rulings on them;
- (5) Proposed findings and exceptions;
- (6) The proposed decision, including all conditions proposed to be added to the permit.

(C) The preliminary record shall be sent to the Environmental Management Commission (EMC) for its review as follows:

- (1) If the EMC concludes from the preliminary record that the variance qualifies as a major variance and that (1) the property owner can secure no reasonable return from, nor make any practical use of the property unless the proposed variance is granted, and (2) the variance, if granted, will not result in a serious threat to the water supply, the EMC shall approve the variance as proposed or approve the proposed variance with conditions and stipulations. The EMC shall prepare a decision and send it to the Watershed Review Board. If the EMC approves the variance as proposed, the Watershed Review Board shall prepare a final decision granting the proposed variance. If the EMC approves the variance with conditions and stipulations, the Watershed Review Board shall prepare a final decision, including such conditions and stipulations, granting the proposed variance.
- (2) If the EMC concludes from the preliminary record that the variance qualifies as a major variance and that (1) the property owner can secure reasonable return from or make practical use of the property without the variance or (2) the variance, if granted, will result in a serious threat to the water supply, then the EMC shall deny approval of the variance as proposed. The EMC shall prepare a commission decision and send it to the Watershed Review Board. The Watershed Review Board shall prepare a final decision denying the variance as proposed.

(D) Written notification shall be given to local governments having jurisdiction and any entity using the water supply for consumption where a variance is being considered. The local government and entity shall have a reasonable comment period prior to review by the Watershed Review Board.

(E) Approval of all development with densities greater than that specified in Article VIII of this Ordinance shall be the authority of the Town Watershed Review Board/Board of Adjustment.

Section 151.89 Appeals from the Watershed Review Board/Board of Adjustment

Appeals from the Watershed Review Board/Board of Adjustment must be filed with the Superior Court within 30 days from the date of the decision. The decisions by the Superior Court will be in the manner of certiorari.

Section 151.90 High Density Development Standards

- (A) The Town Watershed Review Board may approve high density development proposals consistent with the following standards:

WS-II-Watershed Areas - Where new development exceeds either 1 dwelling unit per acre, or 12% built-upon area, **engineered stormwater controls** shall be used to control runoff from the first inch of rainfall and development shall not exceed 30% built-upon area.

WS-IV-Protected Areas - Where new development requires a Sedimentation/Erosion Control Plan and exceeds either 2 dwelling units per acre, or 24% built-upon area (or 3 dwelling units per acre or 36% built-upon area for projects without curb and gutter street system), **engineered stormwater controls** shall be used to control runoff from the first inch of rainfall and development shall not exceed 70% built-upon area.

Section 151.91 High Density Development Permit Application

- (A) A High Density Development Permit shall be required for new development exceeding the density requirements specified in Article VIII of this Ordinance.
- (B) Application for a High Density Development Permit shall be addressed and submitted to the Watershed Review Board through the Watershed Administrator. Application for a High Density Development Permit shall be made on the proper form and shall include the following information:
- (1) A completed High Density Development Permit Application signed by the owner of the property. The signature of the consulting engineer or other agent will be accepted on the application only if accompanied by a letter of authorization;
 - (2) Ten (10) reproducible copies of the development plan including detailed information concerning built-upon area;
 - (3) Ten (10) reproducible copies of the plans and specifications of the stormwater control structure consistent with Section 151.92;
 - (4) When required by law, written verification that a soil erosion and sedimentation control plan has been approved by the appropriate State or local agency;
 - (5) Permit application fees consistent with Section 151.95.
- (C) Prior to taking final action on any application, the Board or Watershed Administrator may provide an opportunity to public agencies affected by the development proposal to review and make recommendations on the application. However, failure of the agencies to submit their comments and recommendations shall not delay the Board's action within the prescribed time limit.
- (D) Public Hearing. Upon receipt of a completed application, the Watershed Review Board shall hold a public hearing. Notice of the public hearing shall be published in a newspaper of general circulation at least seven days prior to the date of the hearing. The notice shall state the location of the building, lot or tract in question, the intended use of the property, the need for engineered stormwater controls and the time and place of the hearing. At the hearing, the applicant or designated representative thereof shall appear for the purposes of offering testimony and recommendations concerning the application. The Board shall also allot reasonable time for the expression of views by any member of the public attending the meeting in person or represented by an attorney provided the testimony bears on the findings the Board must make.

- (E) The Watershed Review Board shall issue a High Density Development Permit within sixty-five (65) days of its first consideration upon finding that the proposal is consistent with the applicable standards set forth in the Watershed Protection Ordinance and the following conditions are met:
- (1) The use will not endanger the public health or safety if located where proposed and developed according to the plan as submitted and approved;
 - (2) The use minimizes impacts to water quality through the Best Management Practices, cluster development, and/or maximum setbacks from perennial waters;
 - (3) The use is vital to the continued growth and economic development of the Town of Taylorsville;
 - (4) The use is consistent with the officially adopted land development plans for the Town of Taylorsville.

If the Watershed Review Board finds that any one of the above conditions is not met, the Board shall deny the application.

- (F) In addition to any other requirements provided by this Ordinance, the Board may designate additional permit conditions and requirements to assure that the use will be harmonious with the area in which it is proposed to be located and with the spirit of this Ordinance. All additional conditions shall be entered in the minutes of the meeting at which the permit is granted, on all plans and on the permit certificate. All conditions imposed shall run with the land and shall be binding upon the applicant and the applicant's heirs, successors or assigns during the continuation of the permitted use.
- (G) The Board shall issue a written ruling and make copies available at the office of the Watershed Administrator and the Town Clerk. If the Board approves the application based on its findings, such approval shall be indicated on the permit and all copies of the site plan and all copies of the plans and specifications of the stormwater control structures(s). A High Density Development Permit shall be issued after the applicant posts a performance bond or other acceptable security as required in Section 151.93 (B)(1) and executes an Operation and Maintenance Agreement as required in Section 151.93 (C). A copy of the permit and one copy of each set of plans shall be kept on file at the Watershed Administrator's office. The original permit and one copy of each set of plans shall be delivered to the applicant either by personal service or registered mail, return receipt requested.

Section 151.92 Stormwater Control Structures

- (A) All stormwater control structures shall be designed by a North Carolina registered professional engineer.
- (B) All stormwater controls shall use wet detention ponds as a primary treatment system unless alternative stormwater management measures are approved by the North Carolina Division of Environmental Management and the Town Watershed Review Board. Wet detention ponds shall be designed for specific pollutant removal according to modeling techniques approved by the North Carolina Division of Environmental Management. Specific requirements for these systems shall be in accordance with the following design criteria:

- (1) Wet detention ponds shall be designed to remove 85% of total suspended solids in the permanent pool and storage run-off from a one-inch rainfall from the site above the permanent pool;
 - (2) The designed run-off storage volume shall be above the permanent pool;
 - (3) The discharge rate from these systems following the one-inch rainfall design storm shall be such that the run-off does not draw down to the permanent pool level in less than two (2) days and that the pond is drawn down to the permanent pool level within at least five (5) days;
 - (4) The mean permanent pool depth shall be a minimum of three (3) feet;
 - (5) The inlet structure shall be designed to minimize turbulence using baffles or other appropriate design features;
 - (6) Vegetative filters shall be constructed for the overflow and discharge of all stormwater wet detention ponds and shall be at least thirty feet in length. The slope and width of the vegetative filter shall be determined so as to provide a non-erosive velocity of flow through the filter for a ten-year, 24-hour storm with a ten-year, one-hour intensity with a slope of 5% or less. Vegetation in the filter shall be natural vegetation, grasses or artificially planted wetland vegetation appropriate for the site characteristics; and
 - (7) All stormwater control structures shall be enclosed by a fence with a minimum height of six (6) feet.
- (D) In addition to the vegetative filters required in Section 151.92 (B)(6), all land areas outside of the pond shall be provided with a ground cover sufficient to restrain erosion within thirty (30) days after any land disturbance. Upon completion of the stormwater control structure, a permanent ground cover shall be established and maintained as part of the maintenance agreement described in Section 151.93 (C).
- (E) An easement in the property containing the stormwater control structure allowing the Town of Taylorsville to perform inspections, maintenance, repairs, reconstruction, and any other acts which may be required in order for the Town of Taylorsville to carry out the provisions of this Article, along with any easements necessary for general access to the stormwater control structure shall be prepared consistent with Section 151.96 (A and B) and recorded in the office of the Register of Deeds of Alexander County. The area in which this easement is granted shall include the detention pond, vegetative filters, all pipes and water control structures, berms, dikes, etc., and sufficient area to perform inspections, maintenance, repairs and reconstruction.
- (F) Qualifying areas of stormwater control structure may be considered pervious when computing total built-upon area. However, if the structure is used to compute the percentage built-upon area for one site, it shall not be used to compute the built-upon area for any other site or area.

Section 151.93 Posting of Financial Security Required

- (A) All new stormwater control structures shall be conditioned on the posting of adequate financial assurance for the purpose of maintenance, reconstruction, or repairs necessary for adequate performance of the stormwater control structures.

- (B) Financial assurance shall be in the form of the following:
- (1) Security Performance Bond or other security. The permit applicant shall obtain either a performance bond from a surety bonding company authorized to do business in North Carolina, an irrevocable letter of credit or other instrument readily convertible into cash at face value payable to the Town of Taylorsville or placed in escrow with a financial institution designated as an official depository of the Town of Taylorsville. The bond or other instrument shall be in an amount equal to 1.25 times the total cost of the stormwater control structure, as estimated by the applicant and approved by the Town. The total cost of the stormwater control structure shall include the value of all materials such as piping and other structures; seeding and soil stabilization; design and engineering; and grading, excavation, fill, etc. The costs shall not be prorated as part of a larger project, but rather under the assumption of an independent mobilization.
 - (2) Cash or Equivalent Security Deposited After the Release of the Performance Bond. Consistent with Section 151.96 (B)(1), the permit applicant shall deposit with the Town of Taylorsville either cash or other instrument approved by the Town Attorney that is readily convertible into cash at face value. The cash or security shall be in an amount equal to fifteen percent (15%) of the total cost of the stormwater control structure or the estimated cost of maintaining the stormwater control structure over a ten (10) year period, whichever is greater. The estimated cost of maintaining the stormwater control structure shall be consistent with the approved operation and maintenance plan or manual provided by the developer under Section 151.94 (A).
- (C) Consistent with Section 151.91(G), the permit applicant shall enter into a binding Operation and Maintenance Agreement between the Town of Taylorsville and all interests in the development. Said Agreement shall require the owning entity to maintain, repair and, if necessary, reconstruct the stormwater control structure in accordance with the operation and management plan or manual provided by the developer. The Operation and Maintenance Agreement shall be filed with the County Register of Deeds by the Watershed Administrator.
- (D) Default under the performance bond or other security. Upon default of the permit applicant to complete and/or maintain the stormwater control structure as specifically provided in the performance bond or other security, the Town of Taylorsville may obtain and use all or any portion of the funds necessary to complete the improvements based on an engineering estimate. The Town of Taylorsville shall return all funds not spent in completing the improvements to the owning entity.
- (E) Default under the cash security. Upon default of the owning entity to maintain, repair and, if necessary, reconstruct the stormwater control structure in accordance with the Operation and Maintenance Agreement, the Town of Taylorsville shall obtain and use all or any portion of the cash security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after exhausting all other reasonable remedies seeking the owning entity to comply with the terms and conditions of the operation and Maintenance Agreement. The Town of Taylorsville shall not return any of the deposited cash funds.

Section 151.94 Maintenance and Upkeep

- (A) An operation and maintenance plan or manual shall be provided by the developer for each stormwater control structure, indicating what operation and maintenance actions are

needed, what specific quantitative criteria will be used for determining when those actions are to be taken and, consistent with the Operation and Maintenance Agreement, who is responsible for those actions. The plan shall clearly indicate the steps that will be taken for restoring a stormwater control structure to design specifications if a failure occurs.

- (B) Landscaping and grounds management shall be the responsibility of the owning entity. However, vegetation shall not be established or allowed to mature to the extent that the integrity of the control structure is diminished or threatened, or to the extent of interfering with any easement to the stormwater control structure.
- (C) Except for general landscaping and grounds management, the owning entity shall notify the Watershed Administrator prior to any repair or reconstruction of the stormwater control structure. All improvements shall be made consistent with the approved plans and specifications of the stormwater control structure and the operation and maintenance plan or manual. After notification by the owning entity, the Town Engineer shall inspect the completed improvements and shall inform the owning entity of any required additions, changes or modifications and of the time period to complete said improvements.
- (D) Amendments to the plans and specifications of the stormwater control structure and/or the operation and maintenance plan or manual shall be approved by the Watershed Review Board. Proposed changes shall be prepared by a North Carolina registered professional engineer and submitted to and reviewed by the Watershed Administrator prior to consideration by the Watershed Review Board.
 - (1) If the Watershed Review Board approves the proposed changes, the owning entity of the stormwater control structure shall file sealed copies of the revisions with the Office of the Watershed Administrator.
 - (2) If the Watershed Review Board disapproves the changes, the proposal may be revised and resubmitted to the Board as a new proposal. If the proposal has not been revised and is essentially the same as that already reviewed, it shall be returned to the applicant.
- (E) If the Watershed Review Board finds that the operation and maintenance plan or manual is inadequate for any reason, the Board shall notify the owning entity of any required changes and shall prepare and file copies of the revised agreement with the County Register of Deeds, the Office of the Watershed Administrator and the owning entity.

Section 151.95 Application and Inspection Fees

- (A) Processing and inspection fees shall be submitted in the form of a check or money order made payable to the Town of Taylorsville. Applications shall be returned if not accompanied by the required fee.
- (B) A permit and inspection fee schedule, as approved by the Town of Taylorsville, shall be posted in the Office of the Watershed Administrator.
- (C) Inspection fees shall be valid for sixty (60) days. An inspection fee shall be required when improvements are made to the stormwater control structure consistent with Section 151.94 (C), except in the case when a similar fee has been paid within the last sixty (60) days.

Section 151.96 Inspections and Release of the Performance Bond

- (A) The stormwater control structure shall be inspected by the Town, after the owning entity notifies the Watershed Administrator that all work has been completed. At this inspection, the owning entity shall provide:
 - (1) The survey plat showing the stormwater control structure and related easement(s), and the signed easement(s) ready for filing with the Alexander County Register of Deeds;
 - (2) A certification sealed by an engineer or landscape architect (to the extent that General Statutes allow) stating that the stormwater control structure is complete and consistent with the approved plans and specifications.
- (B) The Watershed Administrator shall present the materials submitted by the developer and the inspection report and recommendations to the Taylorsville Watershed Review Board at its next regularly scheduled meeting.
 - (1) If the Watershed Review Board approves the inspection report and accepts the certification and deed of easement, the Town shall file the easement with the Alexander County Register of Deeds, release up to seventy-five percent (75%) of the value of the performance bond or other security and direct the Alexander County Building Inspections Department to issue a Certificate of Occupancy for the stormwater control structure.

Section 151.97 Remedies

- (A) If any subdivision, development and/or land use is found to be in violation of this Article, the Town may, in addition to all other remedies available either in law or in equity, institute a civil penalty in the amount of \$50, institute actions or proceedings to restrain, correct, or abate the violations; to prevent occupancy of the building, structure, or land; or to prevent any illegal act, conduct, business, or use in or about the premises. In addition, the N.C. Environmental Management Commission may assess civil penalties in accordance with G.S. 143-215.6(a). Each day the violation continues shall constitute a separate offense.
- (B) If the Watershed Administrator finds that any of the provisions of this Ordinance are being violated, he shall notify in writing the person responsible for such violation, indicating the nature of the violation, and ordering the action necessary to correct it. He shall order discontinuance of the illegal use of land, buildings or structures; removal of illegal buildings or structures, or of additions, alterations or structural changes thereto; discontinuance of any illegal work being done; or shall take any action authorized by this Ordinance to ensure compliance with or to prevent violation of its provisions. If a ruling of the Watershed Administrator is questioned, the aggrieved party or parties may appeal such ruling to the Watershed Review Board.

Section 151.98 Sanctions

In addition to the remedies described in Section 151.97 of this Ordinance and consistent with G.S. 160A-175, the Taylorsville Watershed Review Board may seek enforcement of this Ordinance by assessing a civil penalty to be recovered by the Town in a civil action in the nature of debt if the offender does not pay the penalty in a prescribed period of time after being cited for violation of the Ordinance. Such violation may be enforced by an appropriate equitable remedy issuing from a court of competent jurisdiction. The court may issue an injunction and order of abatement commanding the defendant to correct the unlawful condition upon or cease the unlawful use of the property. The action shall be governed in all respects by the laws and rules governing civil proceedings, including the rules of Civil Procedure in general and Rule 65 in

particular. If the defendant fails or refuses to comply with an injunction or with an order of abatement within the time allowed by the court, the defendant may be cited for contempt and the Town may execute the order of abatement. The Town shall have a lien on the property for the cost of executing an order of abatement in the nature of mechanic's and materialman's lien. The defendant may secure cancellation of an order of abatement by paying all costs of the proceedings and posting a bond for compliance with the order. The bond shall be given with sureties approved by the Clerk of Superior Court in an amount approved by the judge before whom the matter is heard and shall be conditioned on the defendant's full compliance with the terms of the order of abatement within a time fixed by the judge. Cancellation of an order of abatement shall not suspend or cancel an injunction issued in conjunction therewith. Enforcement of this Ordinance may be by any one, all or a combination of the remedies authorized in this Ordinance. Each day's continuing violation shall be a separate and distinct offense.

Section 151.99 Criminal Penalties

Any person violating any provisions of this Article shall be guilty of a misdemeanor and, upon conviction, shall be punished in accordance with NCGS 14-4. The maximum fine for each offense shall not exceed five hundred dollars (\$500). Each day that the violation continues shall constitute a separate offense.

**ARTICLE XV
ADMINISTRATION, ENFORCEMENT AND PENALTIES**

Section 151.100 Zoning Enforcement Officer

This Ordinance shall be administrated and enforced by the Zoning Enforcement Officer who shall be named by the Town Board of Commissioners, and is hereby empowered:

- 151.100.01 To issue a zoning permit when these regulations have been followed or, to refuse to issue the same in the event of noncompliance. Written notice of such refusal and reason therefore shall be given to the applicant.
- 151.100.02 To collect the fees set forth herein for a zoning permit, variances, appeals, rezonings, conditional use permits and subdivisions.
- 151.100.03 To make and keep all records necessary and appropriate to the office, including record of the issuance and denial of all zoning permits and of receipt of complaints of violation of this Ordinance and action taken to the same.
- 151.100.04 To inspect any building and/or land to determine whether any violations of this Ordinance have been committed or exist.
- 151.100.05 To enforce this Ordinance and take all necessary steps to remedy any condition found in violation by ordering in writing the discontinuance of illegal uses or illegal work in progress and may institute injunction, mandamus, or other necessary action.

- 151.100.06 To keep the Board of Adjustment advised of all matters other than routine duties pertaining to the enforcement of this Ordinance and to transmit all applications and records pertaining to appeals, variances, or requests for conditional use approval.

Section 151.101 Zoning Permit Required

Within the corporate limits and extraterritorial jurisdiction of Taylorsville no building, sign or other structure shall be erected, moved, added to or structurally altered before a zoning permit has been issued by the Zoning Enforcement Officer of Taylorsville.

Section 151.102 Application for a Zoning Permit

Each application for a zoning permit to the Zoning Enforcement Officer of Taylorsville shall be accompanied by a twenty-five (\$25.00) dollar fee and a plan in duplicate, drawn to scale, one (1) copy of which shall be returned to the owner upon approval. The plan shall show the following:

- 151.102.01 The actual dimensions of the lot to be built upon;
- 151.102.02 The size and location of all buildings existing on the lot;
- 151.102.03 The size and location of the proposed new construction;
- 151.102.04 The existing and intended use of all parts of the land or building;
- 151.102.05 Such other information with regard to the lot and neighboring lots as may be necessary to determine and provide for the enforcement of this Ordinance.

Any zoning permit issued shall become invalid unless the work authorized by it shall have been commenced within six (6) months of its date of issue or if the work authorized by it is suspended or abandoned for a period of one (1) year.

Section 151.103 Certificate of Occupancy Required

No land within the corporate limits or extraterritorial zoning jurisdiction of the Town of Taylorsville shall be used or occupied and no building within the corporate limits or extraterritorial zoning jurisdiction of the Town of Taylorsville shall hereafter be erected, structurally altered, converted or changed in use until a Certificate of Occupancy shall have been issued by the Zoning Enforcement Officer stating that the building or the proposed use thereof complies with the provisions of this Ordinance. A Certificate of Occupancy either for the whole or a part of a building shall be applied for coincident with the application for a zoning permit and shall be issued within ten (10) days after the erection or structural alteration of such building, or part, shall have been completed in conformity with the provisions of this Ordinance. A temporary Certificate of Occupancy may be issued by the Zoning Enforcement Officer for a period not exceeding six (6) months during alterations or construction for partial occupancy of a building pending its completion, or for bazaars, carnivals, and revivals, provided that such temporary permit shall require such conditions and safeguards as will protect the safety of the occupants and the public. A record of all certificates shall be kept on file in the office of the Zoning Enforcement Officer and copies shall be furnished on request to any person requesting it.

Section 151.104 Penalties for Violations

- 151.104.01 Any person violating any provisions of this Ordinance shall be guilty of a misdemeanor and upon conviction shall be punished for each offense by a fine

not exceeding two hundred dollars (\$200) or by imprisonment not to exceed thirty (30) days.

- 151.104.02 In addition to the penalty in subsection 151.104.01 above, a violation of this Ordinance shall also be a civil offense and shall subject the offender to a civil penalty in the amount of fifty dollars (\$50) per day that the violation continues. Any person violating this Ordinance shall be issued a written citation. The penalty shall be paid to the tax collector at Taylorsville Town Hall within seventy-two hours from the time of issuance of the written citation.
- 151.104.03 Each day's continuing violation shall be a separate and distinct offense.
- 151.104.04 In addition to the penalties imposed under subsection 151.104.01 and 151.104.02 above, the provisions of this Ordinance may also be enforced through equitable remedies issued by a court of competent jurisdiction including injunction and order of abatement.
- 151.104.05 This Ordinance may be enforced by any one, all or a combination of the remedies authorized herein.

Section 151.105 Remedies

In case any building is erected, constructed, reconstructed, altered, repaired, converted or maintained, or any building or land is used in violation of this Ordinance, the Zoning Enforcement Officer or any other appropriate town authority or any person who would be damaged by such violation, in addition to other remedies, may institute injunction, mandamus, or other appropriate action in proceeding to prevent the violation.

In case any sign shall be installed, erected or constructed in violation of any of the terms of this Ordinance, the Zoning Enforcement Officer shall notify by personal notice or registered mail the owner or lessee thereof to alter such sign so as to comply with this Ordinance and to secure the necessary permit therefor or to remove the sign. If such an order is not complied with within ten (10) days, the Zoning Enforcement Officer shall remove the sign at the expense of the owner or lessee thereof. In the event that such sign should become insecure, or in danger of falling, the person maintaining the same shall, upon written notice from the Zoning Enforcement Officer, forthwith, in case of immediate danger, and in any case, within ten (10) days secure it in a manner approved by the Zoning Enforcement Officer.

ARTICLE XVI BOARD OF ADJUSTMENT

Section 151.110 Establishment of the Board of Adjustment

A Board of Adjustment is hereby established as provided in Section 160A-388 of the General Statutes of North Carolina. Said Board shall consist of nine (9) members and shall have proportional representation from within the corporate limits and the Extraterritorial Jurisdiction of the Town of Taylorsville. Four (4) members shall be appointed by the Taylorsville Board of Commissioners and five (5) members shall be appointed by the Alexander County Commissioners for overlapping terms of three (3) years. Initially the Town and County Commissioners shall appoint two (2) members for a three (3) year term, two (2) members for a two (2) year term and one (1) member for a one (1) year term. The Board of Adjustment shall also serve as the Planning Board.

The Town Commissioners at its discretion may appoint not more than 3 alternates to serve on the Board of Adjustment in the absence, for any cause, of any regular member. Alternate members of the Board of Adjustment shall be called on to attend only those meetings and hearings at which one or more regular members are absent or are unable to participate in hearing a case because of financial or other interest. Except at the election of officers, at no time shall more than nine (9) members participate officially in any meeting or hearing. Should population in either the Town or Extraterritorial Jurisdiction change enough to require an additional member to either the Planning Board or the Zoning Board of Adjustment then numbers appointed by the Town Commissioners and the Alexander County Commissioners will be changed accordingly.

Section 151.111 Jurisdiction and Decision of the Board of Adjustment

The four (4) members appointed to the Board of Adjustment by the Town Commissioners shall be residents of the Town of Taylorsville. The five (5) members appointed to the Board of Adjustment by the Alexander County Commissioners shall be residents of the Town of Taylorsville's extraterritorial zoning jurisdiction. A concurring vote of eight (8) members of the Board shall be necessary to reverse any order, requirement, decision, or determination of the Zoning Enforcement Officer of the Town of Taylorsville, or to decide in favor of the applicant any matter upon which it is required to pass under the Ordinance or to effect any variation of such Ordinance when the matter pertains to property located within the corporate limits and Extra Territorial Jurisdiction of the Town of Taylorsville. On all appeals, applications and other matters brought before the Board of Adjustment, said Board shall inform in writing all parties involved of its decision and the reasons therefore.

Seats that are currently vacant and members of the Board that have been disqualified from voting on a quasi-judicial matter shall not be considered 'members of the board' for calculation of the requisite supermajority if there are no qualified alternates available to take the place of such members.

Section 151.112 Proceedings of the Board of Adjustment

The Board of Adjustment shall elect a chairman and a vice-chairman from its members who shall serve for one (1) year or until re-elected or until their successors are elected. The Board shall appoint a secretary, who may be a municipal officer or an employee of the town. The Board shall adopt rules of procedure in accordance with the provisions of this Ordinance and in Article 19, Chapter 160A of the General Statutes of North Carolina. Meetings of the Board shall be held once a month or at the call of the Chairman. The Chairman, or in his absence the Vice-Chairman, may administer oaths and compel the attendance of witnesses by subpoena. All meetings of the Board shall be open to the public.

Section 151.113 Appeals, Hearings and Notice

Appeals to the Board of Adjustment may be taken by any person affected by any decision of the Zoning Enforcement Officer or other town official based on this Ordinance. Such appeal shall be

taken within a reasonable time, as provided by the rules of the Board, by filing with the Zoning Enforcement Officer and with the Board of Adjustment a written notice of appeal specifying the grounds thereof. All papers constituting the record upon which the action appealed from was taken shall forthwith be transmitted to the Board of Adjustment.

The Board of Adjustment shall fix a reasonable time for the hearing of appeals or other matters referred to it, and give due notice thereof to the parties in interest, and decide the same within a reasonable time. Upon a hearing, any party may appeal in person, or by agent, or by attorney.

Section 151.114 Stay of Proceedings

An appeal stays all legal proceedings in furtherance of the action appealed from, unless the Zoning Enforcement Officer certifies to the Board of Adjustment after the notice of appeal shall have been filed with him, that by reason of facts stated in the certificate a stay would in his opinion cause imminent peril to life and property. In such case, proceedings shall not be stayed otherwise than by a restraining order which may be granted by the Board of Adjustment or by a court of record on application, on notice to the Zoning Enforcement Officer and on due cause shown.

Section 151.115 Fees for Variances, Conditional Use Permits and Appeals

A fee of one hundred dollars (\$100) shall be paid to the Town Clerk of the Town of Taylorsville, North Carolina for each application for a variance, conditional use permit, or appeal to cover the necessary administrative costs and advertising.

Section 151.116 Powers and Duties of the Board of Adjustment

The Board of Adjustment shall have the following powers and duties:

- 151.116.01 Administrative Review. To hear and decide appeals where it is alleged there is error in any order, requirement, decision or determination made by the Zoning Enforcement Officer in the enforcement of this Ordinance.
- 151.116.02 Conditional Uses. To grant in particular cases and subject to the appropriate conditions and safeguards, permits for conditional uses as authorized by this Ordinance and set forth as Conditional Uses under the various use districts. The Board shall not grant a conditional use permit unless and until:
 - 151.116.02.01 A written application for a conditional use permit is submitted to the Zoning Enforcement Officer indicating the section of this Ordinance under which the special use permit is sought;
 - 151.116.02.02 A public hearing is held. Notice of such public hearing shall be mailed to property owners within one hundred (100) feet of the property for which the conditional use permit is sought and advertised in a local newspaper the first time at least ten (10) days and not more than twenty-five (25) days prior to the public hearing. This legal notice shall describe the request and appear at least once weekly for two (2) consecutive weeks prior to the public hearing.
 - 151.116.02.03 The Board of Adjustment finds that in the particular case in question the use for which the Conditional Use Permit is sought will not adversely affect the health, or

safety of persons residing or working in the neighborhood of the proposed use, and will not be detrimental to the public welfare or injurious to property or public improvements in the neighborhood. In granting such a permit, the Board of Adjustment may designate such conditions in connection therewith as will, in its opinion, assure that the proposed use will conform to the requirements and spirit of this Ordinance.

151.116.02.04 If at any time after a Conditional Use Permit has been issued, the Board of Adjustment finds that the conditions imposed and agreements made have not been or are not being fulfilled by the holder of a Conditional Use Permit, the permit shall be terminated and the operation of such a use discontinued. If a conditional use permit is terminated for any reason, it may be reinstated only after a public hearing is held.

151.116.03 Variances. To authorize upon appeal in specific cases such variances from the terms of this Ordinance as will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the provisions of the Ordinance will, in an individual case, result in practical difficulty or unnecessary hardship, so that the spirit of the Ordinance shall be observed, public safety and welfare secured, and substantial justice done. The existence of a non-conforming use of neighboring land, buildings, or structures in the same district or of permitted or non-conforming uses in other districts shall not constitute a reason for the requested variance. Such variance may be granted in an individual case of unnecessary hardship upon a finding by the Board of Adjustment that the following conditions exist:

151.116.03.01 There are extraordinary and exceptional conditions pertaining to the particular piece of property in question because of its size, shape or topography that are not applicable to other lands or structures in the same district.

151.116.03.02 Granting the variance requested will not confer upon the applicant any special privileges denied to other residents in the district in which the property is located.

151.116.03.03 A literal interpretation of the provisions of this Ordinance would deprive the applicant of rights commonly enjoyed by other residents of the district in which the property is located.

151.116.03.04 The requested variance will be in harmony with the purpose and intent of this Ordinance and will not be injurious to the neighborhood or to the general welfare.

151.116.03.05 The special circumstances are not the result of the actions of the applicant.

151.116.03.06 The variance requested is the minimum variance that will make possible the legal use of the land, building or structures.

151.116.03.07 The variance is not a request to permit a use of land, building or structure which is not permitted by right or by special exception in the district involved.

Section 151.117 Appeals from the Board of Adjustment

Any person or persons, jointly or severally, aggrieved by a decision of the Board, may within thirty (30) days after the filing of the decision in the office of the Town Clerk, but not thereafter, present to the Superior Court of Alexander County a petition duly verified, setting forth that such decision is illegal in whole or in part, specifying the grounds of illegality, whereupon such decision of said Board shall be subject to review by certiorari as provided by law.

ARTICLE XVII AMENDMENTS

Section 151.120 Procedure for Amendments

The Town Board of Commissioners may amend, supplement or change the text regulations and zoning district lines according to the following procedures:

- 151.120.01 Initiation of Amendments. Proposed changes or amendments may be initiated by the Town Board of Commissioners, Planning Board, Board of Adjustment, or by one or more owners or lessees of property within the area proposed to be changed or affected.
- 151.120.02 Petition. A petition for any change or amendment shall contain a description and/or statement of the present and proposed zoning regulation or district boundary to be applied and the names and addresses of the owner or owners of the property. Such petition shall be filed with the Zoning Enforcement Officer not later than three (3) weeks prior to the meeting at which the petition is to be considered.
- 151.120.03 Fee. A fee of one hundred (\$100) dollars shall be paid to the Town Clerk of the Town of Taylorsville, North Carolina, for each petition for an amendment to cover the costs of advertising and other administrative expenses involved.

Section 151.121 Action by the Planning Board

The Planning Board shall consider and make recommendations to the Town Board of Commissioners concerning each proposed zoning amendment. **The Planning Board shall in writing provide to the Town Board of Commissioners justification for each zoning map amendment.** The Planning Board, at its own discretion, may hold a public hearing if deemed necessary by the Planning Board. Otherwise, the Planning Board will send its recommendation directly to the Town Board of Commissioners who shall hold a public hearing for every proposed zoning amendment.

Section 151.122 Town Board of Commissioners Consideration

The Town Board of Commissioners shall consider changes and amendments to this Ordinance as often as necessary, provided, however, that should the Town Board of Commissioners deny a request for a zoning amendment, it shall not thereafter accept any other petition for the same change of zoning district affecting the same property, or any portion thereof, until the expiration of one (1) year from the date of such previous denial.

Section 151.123 Required Notifications

- 151.123.01 Legal Notice of Public Hearing. No amendment shall be adopted by the Town Board of Commissioners until after public notice and hearing. In accordance with NCGS 160A-364, notice of public hearing shall be published in a newspaper of general circulation in the Town of Taylorsville at least once each week for two (2) successive weeks prior to the hearing. The first notice shall appear in the newspaper at least ten (10) days but not more than twenty-five (25) days prior to the hearing.

- 151.123.02
- 1) Mail Notice Requirements. In accordance with NCGS 160A-384, whenever the amendment involves a change in the zoning classification of a parcel of land, the owner of that parcel of land as shown on the county tax listing, and the owners of all parcels of land abutting or within 100 linear feet of that parcel of land as shown on the county tax listing, shall be mailed a notice of the proposed reclassification and a notice of the public hearing required in Section 151.123.01. Such notice shall be sent by first class mail to the last address listed for such owners on the county tax listing. The person responsible for making the mailed notice shall certify to the Town Board of Commissioners that such notice was indeed prepared and mailed.
 - 2) The Town must post at least one or more prominent signs immediately adjacent to the subject area. The signs must be of a type and size that may be reasonably expected to provide adequate notice of the proposal to the public;

151.123.03 Substitute Notice.

151.123.03.01 In accordance with NCGS 160A-384(b)(3), (4) and (5) individual mailed notices may be waived in lieu of a substitute notice if the amendment meets at least one of the following criteria:

- 1) if the zoning reclassification directly involves more than fifty (50) properties, owned by a total of at least fifty (50) different owners;
- 2) if the proposal involves an amendment to the text of the Zoning Ordinance such that it changes the permitted, conditional, or accessory uses of a zoning district;
- 3) if the Town is adopting a water supply watershed protection program as required by NCGS 143-214.5

151.123.03.02 Notice requirements for amendments meeting any of the three criteria of Section 151.123.03.01 above are as follows:

- 1) Notice of the public hearing shall be published in a newspaper of general circulation in the Town of Taylorsville at least once each week for four (4) consecutive weeks prior to the hearing. The notice must include a map no less than one-half the size of the newspaper page. The map must show the boundaries of the area affected by the proposed amendment;
- 2) The Town must post at least one or more prominent signs immediately adjacent to the subject area. The signs must be of a type and size that may be reasonably expected to provide adequate notice of the proposal to the public;
- 3) The Town must notify by first class mail any property owner who resides outside the Town's zoning jurisdiction or outside the circulation area of the newspaper in which the notice is published. The notice must be mailed to the last address listed for such owners on the most recent county tax listing.

Section 151.124 Town Board of Commissioners Action

Before taking such lawful action as it may deem advisable, the Town Board of Commissioners shall consider the Planning Board's recommendations on each proposed zoning amendment. If no recommendations are received from the Planning Board within thirty (30) days after their meeting, the proposed amendment shall be deemed to have been approved by the Planning Board. **The Town Board of Commissioners shall in writing provide justification for each zoning map amendment that is considered;** Under no circumstances shall the Town Board of Commissioners adopt such amendments that would cause this Ordinance to violate the watershed protection rules as adopted by the North Carolina Environmental Management Commission. Amendments affecting the watershed protection portions of this Ordinance shall be filed with the North Carolina Division of Environmental Management, the North Carolina Division of Environmental Health, and the North Carolina Division of Community Assistance.

Section 151.125 Protest Petitions

(a) *Applicability.* In the case of a qualified protest against a proposed text amendment, as defined in subsection (b), such amendment shall not become effective except by favorable vote of three-fourths of the town council. For purposes of this subsection, vacant positions on the town council and members who are excused from voting shall not be considered for calculation of the required three-fourths majority. Protest petitions shall not be applicable to any amendment which initially zones property added as a result of annexation or increased extra-territorial jurisdiction.

(b) *Qualifying area.* To qualify as a protest under this section, the petition must be signed by the owners of at least twenty (20) percent of the area included in the proposed change or five (5) percent of a one hundred (100)-foot wide buffer extending along the entire boundary of each discrete area proposed to be rezoned. A street right-of-way shall not be considered in computing the buffer unless that right-of-way is more than one hundred (100) feet wide. When less than an entire parcel land is proposed for rezoning, the buffer shall be measured from the property line of that parcel.

(c) *Petition verification.* No protest against any amendment shall be valid unless it is in the form of a written petition bearing the actual signatures of the required number of property owners and stating that the signers do protest the proposed amendment. The protest petition must be received town clerk at least two (2) normal working days before the date established for a public hearing on the proposed amendment. A person who has signed a protest petition may withdraw his or her name from the petition at any time prior to the vote on the proposed amendment.

ARTICLE XVIII LEGAL PROVISIONS

Section 151.130 Conflict with Other Regulations

Whenever the regulations of this Ordinance require a greater width or size of yards, or other open space, or require a lower height of buildings, or require a greater percentage of lot to be left unoccupied, or impose other more restrictive standards than are required in or under any other statutes, the regulations and requirements of this Ordinance shall govern.

Whenever the provisions of any other statute require more restrictive standards than are required by this Ordinance, the provisions of such statute shall govern.

Section 151.131 Repeal of Existing Zoning Ordinance

All zoning ordinances or parts of same now in effect in the Town of Taylorsville are hereby repealed, provided, however, that all suits at law or in equity and/or all prosecutions resulting from the violation of any zoning ordinance heretofore in effect, which are now pending in any of the courts of this state or of the United States, shall not be abated or abandoned by reason of the adoption of this Ordinance but shall be prosecuted to their finality the same as if this Ordinance had not been adopted; any and all violations of existing zoning ordinances, prosecutions for which have not yet been instituted, may be hereafter filed and prosecuted; and nothing in this Ordinance shall be so construed as to abandon, abate, or dismiss any litigation or prosecution now pending, and/or which may have heretofore been instituted or prosecuted.

Section 151.132 Validity

Should any Section or provision of this Ordinance be declared by the courts to be unconstitutional or invalid, such declaration shall not affect the validity of the Ordinance as a whole or any part thereof, other than the part so declared to be unconstitutional or invalid.

Section 151.133 Enactment

The Mayor and Board of Commissioners of Taylorsville, North Carolina, do hereby ordain and enact into law these Articles and Sections on this _____ day of _____, 2001.

SEAL

ATTEST

Glenn P. Deal, Sr. - Mayor

Yolanda T. Prince - Town Clerk

FLOOD DAMAGE PREVENTION ORDINANCE

Non-Coastal Regular Phase

ARTICLE 1. STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES.

SECTION A. STATUTORY AUTHORIZATION.

Municipal: The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3, 5, and 8 of Article 19 of Chapter 160A; and Article 8 of Chapter 160A of the North Carolina General Statutes, delegated to local governmental units the responsibility to adopt regulations designed to promote the public health, safety, and general welfare.

County: The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3 and 4 of Article 18 of Chapter 153A; and Part 121, Article 6 of Chapter 153A of the North Carolina General Statutes, delegated to local governmental units the responsibility to adopt regulations designed to promote the public health, safety, and general welfare.

Therefore, the Town Council of Taylorsville, North Carolina, does ordain as follows:

SECTION B. FINDINGS OF FACT.

- (1) **The flood prone areas within the jurisdiction of Taylorsville are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.**
- (2) **These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities and by the occupancy in flood prone areas of uses vulnerable to floods or other hazards.**

SECTION C. STATEMENT OF PURPOSE.

It is the purpose of this ordinance to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:

- (1) **restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion, flood heights or velocities;**
- (2) **require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;**
- (3) **control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;**
- (4) **control filling, grading, dredging, and all other development that may increase erosion or flood damage; and**

- (5) **prevent or regulate the construction of flood barriers that will unnaturally divert flood waters or which may increase flood hazards to other lands.**

SECTION D. OBJECTIVES.

The objectives of this ordinance are to:

- (1) **protect human life, safety, and health;**
- (2) **minimize expenditure of public money for costly flood control projects;**
- (3) **minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;**
- (4) **minimize prolonged business losses and interruptions;**
- (5) **minimize damage to public facilities and utilities (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located in flood prone areas;**
- (6) **help maintain a stable tax base by providing for the sound use and development of flood prone areas; and**
- (7) **ensure that potential buyers are aware that property is in a Special Flood Hazard Area.**

ARTICLE 2. DEFINITIONS.

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

“Accessory Structure (Appurtenant Structure)” means a structure located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Garages, carports and storage sheds are common urban accessory structures. Pole barns, hay sheds and the like qualify as accessory structures on farms, and may or may not be located on the same parcel as the farm dwelling or shop building.

“Addition (to an existing building)” means an extension or increase in the floor area or height of a building or structure.

“Appeal” means a request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance.

“Area of Shallow Flooding” means a designated Zone AO on a community's Flood Insurance Rate Map (FIRM) with base flood depths determined to be from one (1) to three (3) feet. These areas are located where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

“Area of Special Flood Hazard” see “Special Flood Hazard Area (SFHA)”.

“Basement” means any area of the building having its floor subgrade (below ground level) on all sides.

“Base Flood” means the flood having a one (1) percent chance of being equaled or exceeded in any given year.

“Base Flood Elevation (BFE)” means a determination of the water surface elevations of the base flood as published in the Flood Insurance Study. When the BFE has not been provided in a “Special Flood Hazard Area”, it may be obtained from engineering studies available from a Federal, State, or other source using FEMA approved engineering methodologies. This elevation, when combined with the “Freeboard”, establishes the “Regulatory Flood Protection Elevation”.

“Building” see “Structure”.

“Chemical Storage Facility” means a building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.

“Development” means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

“Disposal” means, as defined in NCGS 130A-290(a)(6), the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or on any land or water so that the solid waste or any constituent part of the solid waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

“Elevated Building” means a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

“Encroachment” means the advance or infringement of uses, fill, excavation, buildings, structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

“Existing Manufactured Home Park or Manufactured Home Subdivision” means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) was completed before the initial effective date of the floodplain management regulations adopted by the community.

“Flood” or “Flooding” means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- (1) the overflow of inland or tidal waters; and/or
- (2) the unusual and rapid accumulation of runoff of surface waters from any source.

“Flood Boundary and Floodway Map (FBFM)” means an official map of a community, issued by the Federal Emergency Management Agency, on which the Special Flood Hazard Areas and the floodways are delineated. This official map is a supplement to and shall be used in conjunction with the Flood Insurance Rate Map (FIRM).

“Flood Hazard Boundary Map (FHBM)” means an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the Special Flood Hazard Areas have been defined as Zone A.

“Flood Insurance” means the insurance coverage provided under the National Flood Insurance Program.

“Flood Insurance Rate Map (FIRM)” means an official map of a community, issued by the Federal Emergency Management Agency, on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated.

“Flood Insurance Study (FIS)” means an examination, evaluation, and determination of flood hazards, corresponding water surface elevations (if appropriate), flood hazard risk zones, and other flood data in a community issued by the Federal Emergency Management Agency. The Flood Insurance Study report includes Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), if published.

“Flood Prone Area” see “Floodplain”

“Floodplain” means any land area susceptible to being inundated by water from any source.

“Floodplain Administrator” is the individual appointed to administer and enforce the floodplain management regulations.

“Floodplain Development Permit” means any type of permit that is required in conformance with the provisions of this ordinance, prior to the commencement of any development activity.

“Floodplain Management” means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including, but not limited to, emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

“Floodplain Management Regulations” means this ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power. This term describes Federal, State or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.

“Floodproofing” means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitation facilities, structures, and their contents.

“Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

“Flood Zone” means a geographical area shown on a Flood Hazard Boundary Map or Flood Insurance Rate Map that reflects the severity or type of flooding in the area.

“Freeboard” means the height added to the Base Flood Elevation (BFE) to account for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, blockage of bridge openings, and the hydrological effect of urbanization of the watershed. The Base Flood Elevation plus the freeboard establishes the “Regulatory Flood Protection Elevation”.

“Functionally Dependent Facility” means a facility which cannot be used for its intended purpose unless it is located in close proximity to water, limited to a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

“Hazardous Waste Management Facility” means, as defined in NCGS 130A, Article 9, a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste.

“Highest Adjacent Grade (HAG)” means the highest natural elevation of the ground surface, prior to construction, immediately next to the proposed walls of the structure.

“Historic Structure” means any structure that is:

- (a) listed individually in the National Register of Historic Places (a listing maintained by the US Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register;
- (b) certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (c) individually listed on a local inventory of historic landmarks in communities with a “Certified Local Government (CLG) Program”; or
- (d) certified as contributing to the historical significance of a historic district designated by a community with a “Certified Local Government (CLG) Program”.

Certified Local Government (CLG) Programs are approved by the US Department of the Interior in cooperation with the North Carolina Department of Cultural Resources through the State Historic Preservation Officer as having met the requirements of the National Historic Preservation Act of 1966 as amended in 1980.

“Lowest Adjacent Grade (LAG)” means the elevation of the ground, sidewalk or patio slab immediately next to the building, or deck support, after completion of the building.

“Lowest Floor” means lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited storage in an area other than a basement area is not considered a building's lowest floor, provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

“Manufactured Home” means a structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term “manufactured home” does not include a “recreational vehicle”.

“Manufactured Home Park or Subdivision” means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

“Market Value” means the building value, not including the land value and that of any accessory structures or other improvements on the lot. Market value may be established by independent certified appraisal; replacement cost depreciated for age of building and quality of construction (Actual Cash Value); or adjusted tax assessed values.

“Mean Sea Level” means, for purposes of this ordinance, the National Geodetic Vertical Datum (NGVD) as corrected in 1929, the North American Vertical Datum (NAVD) as corrected in 1988, or other vertical control datum used as a reference for establishing varying elevations within the floodplain, to which Base Flood Elevations (BFEs) shown on a FIRM are referenced. Refer to each FIRM panel to determine datum used.

“New Construction” means structures for which the “start of construction” commenced on or after the effective date of the initial floodplain management regulations and includes any subsequent improvements to such structures.

“Non-Encroachment Area” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot as designated in the Flood Insurance Study report.

“Post-FIRM” means construction or other development for which the “start of construction” occurred on or after the effective date of the initial Flood Insurance Rate Map.

“Pre-FIRM” means construction or other development for which the “start of construction” occurred before the effective date of the initial Flood Insurance Rate Map.

“Principally Above Ground” means that at least 51% of the actual cash value of the structure is above ground.

“Public Safety” and/or “Nuisance” means anything which is injurious to the safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

“Recreational Vehicle (RV)” means a vehicle, which is:

- (a) built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) designed to be self-propelled or permanently towable by a light duty truck; and
- (d) designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

“Reference Level” is the top of the lowest floor for structures within Special Flood Hazard Areas designated as Zone A1-A30, AE, A, A99 or AO.

“Regulatory Flood Protection Elevation” means the “Base Flood Elevation” plus the “Freeboard”. In “Special Flood Hazard Areas” where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus two (2) feet of freeboard. In “Special Flood Hazard Areas” where no BFE has been established, this elevation shall be at least two (2) feet above the highest adjacent grade.

“Remedy a Violation” means to bring the structure or other development into compliance with State and community floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

“Riverine” means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

“Salvage Yard” means any non-residential property used for the storage, collection, and/or recycling of any type of equipment, and including but not limited to vehicles, appliances and related machinery.

“Solid Waste Disposal Facility” means any facility involved in the disposal of solid waste, as defined in NCGS 130A-290(a)(35).

“Solid Waste Disposal Site” means, as defined in NCGS 130A-290(a)(36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.

“Special Flood Hazard Area (SFHA)” means the land in the floodplain subject to a one percent (1%) or greater chance of being flooded in any given year, as determined in Article 3, Section B of this ordinance.

“Start of Construction” includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

“Structure” means a walled and roofed building, a manufactured home, or a gas, liquid, or liquefied gas storage tank that is principally above ground.

“Substantial Damage” means damage of any origin sustained by a structure during any one-year period whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. See definition of “substantial improvement”. *Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.*

“Substantial Improvement” means any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one-year period for which the cost equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either:

- (a) any correction of existing violations of State or community health, sanitary, or safety code specifications which have been identified by the community code enforcement official and which are the minimum necessary to assure safe living conditions; or
- (b) any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

“Variance” is a grant of relief from the requirements of this ordinance.

“Violation” means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Articles 4 and 5 is presumed to be in violation until such time as that documentation is provided.

“Water Surface Elevation (WSE)” means the height, in relation to mean sea level, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

“Watercourse” means a lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

ARTICLE 3. GENERAL PROVISIONS.

SECTION A. LANDS TO WHICH THIS ORDINANCE APPLIES.

This ordinance shall apply to all Special Flood Hazard Areas within the jurisdiction, including Extra-Territorial Jurisdictions (ETJs) if applicable, of Taylorsville and within the jurisdiction of any other community whose governing body agrees, by resolution, to such applicability.

SECTION B. BASIS FOR ESTABLISHING THE SPECIAL FLOOD HAZARD AREAS.

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 Alexander County dated December 18, 2007, which are adopted by reference and declared to be a part of this ordinance.

SECTION C. ESTABLISHMENT OF FLOODPLAIN DEVELOPMENT PERMIT.

A Floodplain Development Permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities within Special Flood Hazard Areas determined in accordance with the provisions of Article 3, Section B of this ordinance.

SECTION D. COMPLIANCE.

No structure or land shall hereafter be located, extended, converted, altered, or developed in any way without full compliance with the terms of this ordinance and other applicable regulations.

SECTION E. ABROGATION AND GREATER RESTRICTIONS.

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

SECTION F. INTERPRETATION.

In the interpretation and application of this ordinance, all provisions shall be:

- (a) considered as minimum requirements;
- (b) liberally construed in favor of the governing body; and
- (c) deemed neither to limit nor repeal any other powers granted under State statutes.

SECTION G. WARNING AND DISCLAIMER OF LIABILITY.

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur. Actual flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the Special Flood Hazard Areas or uses permitted within such

areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of Taylorsville or by any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

SECTION H. PENALTIES FOR VIOLATION.

Violation of the provisions of this ordinance or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$50.00 or imprisoned for not more than thirty (30) days, or both. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent Taylorsville from taking such other lawful action as is necessary to prevent or remedy any violation.

ARTICLE 4. ADMINISTRATION.

SECTION A. DESIGNATION OF FLOODPLAIN ADMINISTRATOR.

The Town Planner, hereinafter referred to as the "Floodplain Administrator", is hereby appointed to administer and implement the provisions of this ordinance.

SECTION B. FLOODPLAIN DEVELOPMENT APPLICATION, PERMIT AND CERTIFICATION REQUIREMENTS.

- (1) Application Requirements. **Application for a Floodplain Development Permit shall be made to the Floodplain Administrator prior to any development activities located within Special Flood Hazard Areas. The following items shall be presented to the Floodplain Administrator to apply for a floodplain development permit:**
 - (a) A plot plan drawn to scale which shall include, but shall not be limited to, the following specific details of the proposed floodplain development:
 - (i) ***the nature, location, dimensions, and elevations of the area of development/disturbance; existing and proposed structures, utility systems, grading/pavement areas, fill materials, storage areas, drainage facilities, and other development;***
 - (ii) ***the boundary of the Special Flood Hazard Area as delineated on the FIRM or other flood map as determined in Article 3, Section B, or a statement that the entire lot is within the Special Flood Hazard Area;***
 - (iii) ***flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined in Article 3, Section B;***
 - (iv) ***the boundary of the floodway(s) or non-encroachment area(s) as determined in Article 3, Section B;***
 - (v) ***the Base Flood Elevation (BFE) where provided as set forth in Article 3, Section B; Article 4, Section C; or Article 5, Section D;***
 - (vi) ***the old and new location of any watercourse that will be altered or relocated as a result of proposed development;***

(vii) the 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:
 - (i) Elevation in relation to mean sea level of the proposed reference level (including basement) of all structures;**
 - (ii) Elevation in relation to mean sea level to which any non-residential structure in Zone AE, A or AO will be flood-proofed; and**
 - (iii) 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:
 - (i) 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);**
 - (ii) Openings to facilitate automatic equalization of hydrostatic flood forces on walls in accordance with Article 5, Section B(4)(c) when solid foundation perimeter walls are used in Zones A, AO, AE, and A1-30;**
- (e) Usage details of any enclosed areas below the lowest floor.
- (f) 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;
- (g) Certification that all other Local, State and Federal permits required prior to floodplain development permit issuance have been received.
- (h) Documentation for placement of Recreational Vehicles and/or Temporary Structures, when applicable, to ensure that the provisions of Article 5, Section B, subsections (6) and (7) of this ordinance are met.
- (i) 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.

(2) Permit Requirements. The Floodplain Development Permit shall include, but not be limited to:

- (a) A description of the development to be permitted under the floodplain development permit.
 - (b) The Special Flood Hazard Area determination for the proposed development in accordance with available data specified in Article 3, Section B.
 - (c) The regulatory flood protection elevation required for the reference level and all attendant utilities.
 - (d) The regulatory flood protection elevation required for the protection of all public utilities.
 - (e) All certification submittal requirements with timelines.
 - (f) A statement that no fill material or other development shall encroach into the floodway or non-encroachment area of any watercourse, as applicable.
 - (g) The flood openings requirements, if in Zones A, AO, AE or A1-30.
 - (h) Limitations of below BFE enclosure uses (if applicable). (i.e., parking, building access and limited storage only).
- (3) Certification Requirements.
- (a) Elevation Certificates
 - (i) ***An Elevation Certificate (FEMA Form 81-31) is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to mean sea level. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder prior to the beginning of construction. Failure to submit the certification or failure to make required corrections shall be cause to deny a floodplain development permit.***
 - (ii) ***An Elevation Certificate (FEMA Form 81-31) is required after the reference level is established. Within seven (7) calendar days of establishment of the reference level elevation, it shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to mean sea level. . Any work done within the seven (7) day calendar period and prior to submission of the certification shall be at the permit holder's risk. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being permitted to proceed. Failure to submit the certification or failure to make required corrections shall be cause to issue a stop-work order for the project.***
 - (iii) ***A final as-built Elevation Certificate (FEMA Form 81-31) is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be***

corrected by the permit holder immediately and prior to Certificate of Compliance/Occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make required corrections shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy..)

(b) Floodproofing Certificate

If non-residential floodproofing is used to meet the regulatory flood protection elevation requirements, a Floodproofing Certificate (FEMA Form 81-65), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to mean sea level. Floodproofing certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Floodplain Administrator shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to permit approval. Failure to submit the certification or failure to make required corrections shall be cause to deny a floodplain development permit. Failure to construct in accordance with the certified design shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.

- (c) If a manufactured home is placed within Zone A, AO, AE, or A1-30 and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required in accordance with the provisions of Article 5, Section B(3)(b).
- (d) If a watercourse is to be altered or relocated, a description of the extent of watercourse alteration or relocation; a professional engineer's certified 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 showing the location of the proposed watercourse alteration or relocation shall all be submitted by the permit applicant prior to issuance of a floodplain development permit.
- (e) Certification Exemptions. The following structures, if located within Zone A, AO, AE or A1-30, are exempt from the elevation/floodproofing certification requirements specified in items (a) and (b) of this subsection:

- (i) Recreational Vehicles meeting requirements of Article 5, Section B(6)(a);**
- (ii) Temporary Structures meeting requirements of Article 5, Section B(7); and**
- (iii) Accessory Structures less than 150 square feet meeting requirements of Article 5, Section B(8).**

SECTION C. DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR.

The Floodplain Administrator shall perform, but not be limited to, the following duties:

- (1) **Review all floodplain development applications and issue permits for all proposed development within Special Flood Hazard Areas to assure that the requirements of this ordinance have been satisfied.**

- (2) **Review all proposed development within Special Flood Hazard Areas to assure that all necessary Local, State and Federal permits have been received.**
- (3) **Notify adjacent communities and the North Carolina Department of Crime Control and Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency (FEMA).**
- (4) **Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is maintained.**
- (5) **Prevent encroachments into floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of Article 5, Section F are met.**
- (6) **Obtain actual elevation (in relation to mean sea level) of the reference level (including basement) and all attendant utilities of all new and substantially improved structures, in accordance with Article 4, Section B(3).**
- (7) **Obtain actual elevation (in relation to mean sea level) to which all new and substantially improved structures and utilities have been floodproofed, in accordance with the provisions of Article 4, Section B(3).**
- (8) **Obtain actual elevation (in relation to mean sea level) of all public utilities in accordance with the provisions of Article 4, Section B(3).**
- (9) **When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with the provisions of Article 4, Section B(3) and Article 5, Section B(2).**
- (10) **Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Areas, floodways, or non-encroachment areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.**
- (11) **When Base Flood Elevation (BFE) data has not been provided in accordance with Article 3, Section B, obtain, review, and reasonably utilize any Base Flood Elevation (BFE) data, along with floodway data or non-encroachment area data available from a Federal, State, or other source, including data developed pursuant to Article 5, Section D(2)(b), in order to administer the provisions of this ordinance.**
- (12) **When Base Flood Elevation (BFE) data is provided but no floodway or non-encroachment area data has been provided in accordance with Article 3, Section B, obtain, review, and reasonably utilize any floodway data or non-encroachment area data available from a Federal, State, or other source in order to administer the provisions of this ordinance.**
- (13) *(removed)*
- (14) **Permanently maintain all records that pertain to the administration of this ordinance and make these records available for public inspection, recognizing that such information may be subject to the Privacy Act of 1974, as amended.**
- (15) **Make on-site inspections of work in progress. As the work pursuant to a floodplain development permit progresses, the floodplain administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the**

provisions of the local ordinance and the terms of the permit. In exercising this power, the floodplain administrator has a right, upon presentation of proper credentials, to enter on any premises within the jurisdiction of the community at any reasonable hour for the purposes of inspection or other enforcement action.

- (16) Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this ordinance, the Floodplain Administrator may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing or in charge of the work. The stop-work order shall state the specific work to be stopped, the specific reason(s) for the stoppage, and the condition(s) under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.
- (17) Revoke floodplain development permits as required. The Floodplain Administrator may revoke and require the return of the floodplain development permit by notifying the permit holder in writing stating the reason(s) for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, and specifications; for refusal or failure to comply with the requirements of State or local laws; or for false statements or misrepresentations made in securing the permit. Any floodplain development permit mistakenly issued in violation of an applicable State or local law may also be revoked.
- (18) Make periodic inspections throughout the special flood hazard areas within the jurisdiction of the community. The Floodplain Administrator and each member of his or her inspections department shall have a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.
- (19) Follow through with corrective procedures of Article 4, Section D.
- (20) Review, provide input, and make recommendations for variance requests.
- (21) Maintain a current map repository to include, but not limited to, the FIS Report, FIRM and other official flood maps and studies adopted in accordance with Article 3, Section B of this ordinance, including any revisions thereto including Letters of Map Change, issued by FEMA. Notify State and FEMA of mapping needs.
- (22) Coordinate revisions to FIS reports and FIRMs, including Letters of Map Revision Based on Fill (LOMR-F) and Letters of Map Revision (LOMR).

SECTION D. CORRECTIVE PROCEDURES.

- (1) **Violations to be Corrected:** When the Floodplain Administrator finds violations of applicable State and local laws, it shall be his or her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law cited in such notification.
- (2) **Actions in Event of Failure to Take Corrective Action:** If the owner of a building or property shall fail to take prompt corrective action, the Floodplain Administrator shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:
 - (a) that the building or property is in violation of the floodplain management regulations;
 - (b) that a hearing will be held before the floodplain administrator at a designated place and time, not later than ten (10) days after the date of the notice, at which time the owner shall be

entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and

- (c) that following the hearing, the Floodplain Administrator may issue an order to alter, vacate, or demolish the building; or to remove fill as applicable.
- (3) **Order to Take Corrective Action: If, upon a hearing held pursuant to the notice prescribed above, the Floodplain Administrator shall find that the building or development is in violation of the Flood Damage Prevention Ordinance, they shall issue an order in writing to the owner, requiring the owner to remedy the violation within a specified time period, not less than sixty (60) calendar days, nor more than one hundred eighty (180) calendar days. Where the Floodplain Administrator finds that there is imminent danger to life or other property, they may order that corrective action be taken in such lesser period as may be feasible.**
- (4) **Appeal: Any owner who has received an order to take corrective action may appeal the order to the local elected governing body by giving notice of appeal in writing to the Floodplain Administrator and the clerk within ten (10) days following issuance of the final order. In the absence of an appeal, the order of the Floodplain Administrator shall be final. The local governing body shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.**
- (5) **Failure to Comply with Order: If the owner of a building or property fails to comply with an order to take corrective action for which no appeal has been made or fails to comply with an order of the governing body following an appeal, the owner shall be guilty of a misdemeanor and shall be punished at the discretion of the court.**

SECTION E. VARIANCE PROCEDURES.

- (1) **The Board of Adjustment as established by Taylorsville, hereinafter referred to as the “appeal board”, shall hear and decide requests for variances from the requirements of this ordinance.**
- (2) **Any person aggrieved by the decision of the appeal board may appeal such decision to the Court, as provided in Chapter 7A of the North Carolina General Statutes.**
- (3) **Variances may be issued for:**
 - (a) the repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and that the variance is the minimum necessary to preserve the historic character and design of the structure.
 - (b) functionally dependent facilities if determined to meet the definition as stated in Article 2 of this ordinance, provided provisions of Article 4, Section E(9)(b), (c), and (e) have been satisfied, and such facilities are protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.
 - (c) any other type of development, provided it meets the requirements of this Section.
- (4) **In passing upon variances, the appeal board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:**
 - (a) the danger that materials may be swept onto other lands to the injury of others;
 - (b) the danger to life and property due to flooding or erosion damage;

- (c) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - (d) the importance of the services provided by the proposed facility to the community;
 - (e) the necessity to the facility of a waterfront location as defined under Article 2 of this ordinance as a functionally dependent facility, where applicable;
 - (f) the availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
 - (g) the compatibility of the proposed use with existing and anticipated development;
 - (h) the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 - (i) the safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (j) the expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
 - (k) the costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.
- (5) A written report addressing each of the above factors shall be submitted with the application for a variance.**
- (6) Upon consideration of the factors listed above and the purposes of this ordinance, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes and objectives of this ordinance.**
- (7) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the Base Flood Elevation (BFE) and the elevation to which the structure is to be built and that such construction below the Base Flood Elevation increases risks to life and property, and that the issuance of a variance to construct a structure below the Base Flood Elevation will result in increased premium rates for flood insurance up to \$25 per \$100 of insurance coverage. Such notification shall be maintained with a record of all variance actions, including justification for their issuance.**
- (8) The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency and the State of North Carolina upon request.**
- (9) Conditions for Variances:**
- (a) Variances shall not be issued when the variance will make the structure in violation of other Federal, State, or local laws, regulations, or ordinances.
 - (b) Variances shall not be issued within any designated floodway or non-encroachment area if the variance would result in any increase in flood levels during the base flood discharge.
 - (c) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(d) Variances shall only be issued prior to development permit approval.

(e) Variances shall only be issued upon:

(i) a showing of good and sufficient cause;

(ii) a determination that failure to grant the variance would result in exceptional hardship; and

(iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(10) A variance may be issued for solid waste disposal facilities or sites, hazardous waste management facilities, salvage yards, and chemical storage facilities that are located in Special Flood Hazard Areas provided that all of the following conditions are met.

(a) The use serves a critical need in the community.

(b) No feasible location exists for the use outside the Special Flood Hazard Area.

(c) The reference level of any structure is elevated or floodproofed to at least the regulatory flood protection elevation.

(d) The use complies with all other applicable Federal, State and local laws.

(e) The Town of Taylorsville has notified the Secretary of the North Carolina Department of Crime Control and Public Safety of its intention to grant a variance at least thirty (30) calendar days prior to granting the variance.

ARTICLE 5. PROVISIONS FOR FLOOD HAZARD REDUCTION.

SECTION A. GENERAL STANDARDS.

In all Special Flood Hazard Areas the following provisions are required:

- (1) All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the structure.**
- (2) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.**
- (3) All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.**
- (4) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding to the Regulatory Flood Protection Elevation. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, hot water heaters, and electric outlets/switches.**

- (5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- (6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into flood waters.
- (7) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- (8) Any alteration, repair, reconstruction, or improvements to a structure, which is in compliance with the provisions of this ordinance, shall meet the requirements of “new construction” as contained in this ordinance.
- (9) Nothing in this ordinance shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this ordinance and located totally or partially within the floodway, non-encroachment area, or stream setback, provided there is no additional encroachment below the regulatory flood protection elevation in the floodway, non-encroachment area, or stream setback, and provided that such repair, reconstruction, or replacement meets all of the other requirements of this ordinance.
- (10) New solid waste disposal facilities and sites, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted, except by variance as specified in Article 4, Section E(10). A structure or tank for chemical or fuel storage incidental to an allowed use or to the operation of a water treatment plant or wastewater treatment facility may be located in a Special Flood Hazard Area only if the structure or tank is either elevated or floodproofed to at least the regulatory flood protection elevation and certified in accordance with the provisions of Article 4, Section B(3).
- (11) All subdivision proposals and other development proposals shall be consistent with the need to minimize flood damage.
- (12) All subdivision proposals and other development proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
- (13) All subdivision proposals and other development proposals shall have adequate drainage provided to reduce exposure to flood hazards.
- (14) All subdivision proposals and other development proposals shall have received all necessary permits from those governmental agencies for which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
- (15) When a structure is partially located in a special flood hazard area, the entire structure shall meet the requirements for new construction and substantial improvements.
- (16) When a structure is located in multiple flood hazard zones or in a flood hazard risk zone with multiple base flood elevations, the provisions for the more restrictive flood hazard risk zone and the highest base flood elevation shall apply.

SECTION B. SPECIFIC STANDARDS.

In all Special Flood Hazard Areas where Base Flood Elevation (BFE) data has been provided, as set forth in Article 3, Section B, or Article 5, Section D, the following provisions, in addition to the provisions of Article 5, Section A, are required:

- (1) **Residential Construction.** New construction and substantial improvement of any residential structure (including manufactured homes) shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in Article 2 of this ordinance.
- (2) **Non-Residential Construction.** New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in Article 2 of this ordinance. Structures located in A, AE, AO, and A1-30 Zones may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the regulatory flood protection elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. For AO Zones, the floodproofing elevation shall be in accordance with Article 5, Section G(2). A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator as set forth in Article 4, Section B(3), along with the operational and maintenance plans..
- (3) **Manufactured Homes.**
 - (a) New and replacement manufactured homes shall be elevated so that the reference level of the manufactured home is no lower than the regulatory flood protection elevation, as defined in Article 2 of this ordinance.
 - (b) Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement, either by certified engineered foundation system, or in accordance with the most current edition of the State of North Carolina Regulations for Manufactured Homes adopted by the Commissioner of Insurance pursuant to NCGS 143-143.15. Additionally, when the elevation would be met by an elevation of the chassis thirty-six (36) inches or less above the grade at the site, the chassis shall be supported by reinforced piers or engineered foundation. When the elevation of the chassis is above thirty-six (36) inches in height, an engineering certification is required.
 - (c) All enclosures or skirting below the lowest floor shall meet the requirements of Article 5, Section B(4).
 - (d) An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the Floodplain Administrator and the local Emergency Management coordinator.
- (4) **Elevated Buildings. Fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor:**
 - (a) shall not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, except to enclose storage areas;

- (b) shall be constructed entirely of flood resistant materials at least to the regulatory flood protection elevation;
- (c) shall include, in Zones A, AO, AE, and A1-30, flood openings to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet or exceed the following minimum design criteria:
 - (i) A minimum of two flood openings on different sides of each enclosed area subject to flooding;**
 - (ii) The total net area of all flood openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding;**
 - (iii) If a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;**
 - (iv) The bottom of all required flood openings shall be no higher than one (1) foot above the adjacent grade;**
 - (v) Flood openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions; and**
 - (vi) Enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require flood openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires flood openings as outlined above.**

(5) **Additions/Improvements.**

- (a) Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:
 - (i) not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more non-conforming than the existing structure.**
 - (ii) a substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.**
- (b) Additions to post-FIRM structures with no modifications to the existing structure other than a standard door in the common wall shall require only the addition to comply with the standards for new construction.
- (c) Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:
 - (i) not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction.**
 - (ii) a substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.**

- (6) **Recreational Vehicles.** Recreational vehicles shall either:
- (a) be on site for fewer than 180 consecutive days and be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities, and has no permanently attached additions); or
 - (b) meet all the requirements for new construction.
- (7) **Temporary Non-Residential Structures.** Prior to the issuance of a floodplain development permit for a temporary structure, the applicant must submit to the Floodplain Administrator a plan for the removal of such structure(s) in the event of a hurricane, flash flood or other type of flood warning notification. The following information shall be submitted in writing to the Floodplain Administrator for review and written approval:
- (a) a specified time period for which the temporary use will be permitted. Time specified may not exceed three (3) months, renewable up to one (1) year;
 - (b) the name, address, and phone number of the individual responsible for the removal of the temporary structure;
 - (c) the time frame prior to the event at which a structure will be removed (i.e., minimum of 72 hours before landfall of a hurricane or immediately upon flood warning notification);
 - (d) a copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and
 - (e) designation, accompanied by documentation, of a location outside the Special Flood Hazard Area, to which the temporary structure will be moved.
- (8) **Accessory Structures.** When accessory structures (sheds, detached garages, etc.) are to be placed within a Special Flood Hazard Area, the following criteria shall be met:
- (a) Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);
 - (b) Accessory structures shall not be temperature-controlled;
 - (c) Accessory structures shall be designed to have low flood damage potential;
 - (d) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
 - (e) Accessory structures shall be firmly anchored in accordance with the provisions of Article 5, Section A(1);
 - (f) All service facilities such as electrical shall be installed in accordance with the provisions of Article 5, Section A(4); and
 - (g) Flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below regulatory flood protection elevation in conformance with the provisions of Article 5, Section B(4)(c).

An accessory structure with a footprint less than 150 square feet that satisfies the criteria outlined above does not require an elevation or floodproofing certificate. Elevation or floodproofing certifications are required for all other accessory structures in accordance with Article 4, Section B(3).

SECTION C. RESERVED.

SECTION D. STANDARDS FOR FLOODPLAINS WITHOUT ESTABLISHED BASE FLOOD ELEVATIONS.

Within the Special Flood Hazard Areas designated as Approximate Zone A and established in Article 3, Section B, where no Base Flood Elevation (BFE) data has been provided by FEMA, the following provisions, in addition to the provisions of Article 5, Section A, shall apply:

- (1) **No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of twenty (20) feet each side from top of bank or five times the width of the stream, whichever is greater, unless certification with supporting technical data by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.**
- (2) **The BFE used in determining the regulatory flood protection elevation shall be determined based on the following criteria:**
 - (a) When Base Flood Elevation (BFE) data is available from other sources, all new construction and substantial improvements within such areas shall also comply with all applicable provisions of this ordinance and shall be elevated or floodproofed in accordance with standards in Article 5, Sections A and B.
 - (b) When floodway data is available from a Federal, State, or other source, all new construction and substantial improvements within floodway areas shall also comply with the requirements of Article 5, Sections B and F.
 - (c) All subdivision, manufactured home park and other development proposals shall provide Base Flood Elevation (BFE) data if development is greater than five (5) acres or has more than fifty (50) lots/manufactured home sites. Such Base Flood Elevation (BFE) data shall be adopted by reference in accordance with Article 3, Section B and utilized in implementing this ordinance.
 - (d) When Base Flood Elevation (BFE) data is not available from a Federal, State, or other source as outlined above, the reference level shall be elevated or floodproofed (nonresidential) to or above the Regulatory Flood Protection Elevation, as defined in Article 2. All other applicable provisions of Article 5, Section B shall also apply.

SECTION E. STANDARDS FOR RIVERINE FLOODPLAINS WITH BFE BUT WITHOUT ESTABLISHED FLOODWAYS OR NON-ENCROACHMENT AREAS.

Along rivers and streams where BFE data is provided by FEMA or is available from another source but neither floodway nor non-encroachment areas are identified for a Special Flood Hazard Area on the FIRM or in the FIS report, the following requirements shall apply to all development within such areas:

- (1) **Standards of Article 5, Sections A and B; and**

- (2) Until a regulatory floodway or non-encroachment area is designated, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the community.

SECTION F. FLOODWAYS AND NON-ENCROACHMENT AREAS.

Areas designated as floodways or non-encroachment areas are located within the Special Flood Hazard Areas established in Article 3, Section B. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions, in addition to standards outlined in Article 5, Sections A and B, shall apply to all development within such areas:

- (1) **No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless:**
 - (a) it is demonstrated that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the Floodplain Administrator prior to issuance of floodplain development permit, or
 - (b) a Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained upon completion of the proposed encroachment.
- (2) **If Article 5, Section F(1) is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this ordinance.**
- (3) **No manufactured homes shall be permitted, except replacement manufactured homes in an existing manufactured home park or subdivision, provided the following provisions are met:**
 - (a) the anchoring and the elevation standards of Article 5, Section B(3); and
 - (b) the no encroachment standard of Article 5, Section F(1).

SECTION G. STANDARDS FOR AREAS OF SHALLOW FLOODING (ZONE AO).

Located within the Special Flood Hazard Areas established in Article 3, Section B, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to Article 5, Sections A and B, all new construction and substantial improvements shall meet the following requirements:

- (1) **The reference level shall be elevated at least as high as the depth number specified on the Flood Insurance Rate Map (FIRM), in feet, plus a freeboard of 4 feet, above the highest adjacent grade; or at least 4 feet above the highest adjacent grade if no depth number is specified (2)**

Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in Article 5, Section G(1) so that the structure, together with attendant utility and sanitary facilities, below that level shall be watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting

hydrostatic and hydrodynamic loads and effects of buoyancy. Certification is required in accordance with Article 4, Section B(3) and Article 5, Section B(2).

- (3) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

ARTICLE 6. LEGAL STATUS PROVISIONS.

SECTION A. (RESERVED)

SECTION B. EFFECT UPON OUTSTANDING FLOODPLAIN DEVELOPMENT PERMITS.

Nothing herein contained shall require any change in the plans, construction, size, or designated use of any development or any part thereof for which a floodplain development permit has been granted by the floodplain administrator or his or her authorized agents before the time of passage of this ordinance; provided, however, that when construction is not begun under such outstanding permit within a period of six (6) months subsequent to the date of issuance of the outstanding permit, construction or use shall be in conformity with the provisions of this ordinance.

SECTION C. EFFECTIVE DATE.

This ordinance shall become effective OCTOBER 2, 2007

SECTION D. ADOPTION CERTIFICATION.

I hereby certify that this is a true and correct copy of the flood damage prevention ordinance as adopted by the Town Council of Taylorsville, North Carolina, on the 2nd day of October, 2007.

WITNESS my hand and the official seal of Taylorsville, this the 2nd day of October, 2007.

Guy E. Barriger, Mayor, Taylorsville
Prince, Town Clerk

Yolanda T.

SUBDIVISION REGULATIONS

**TOWN OF TAYLORSVILLE
NORTH CAROLINA**

**PREPARED WITH ASSISTANCE FROM
THE WESTERN PIEDMONT COUNCIL OF GOVERNMENTS**

June 2000

**ARTICLE A
INTRODUCTORY PROVISIONS**

Section 150.01. Short title

This chapter shall be known and may be cited as the *Subdivision Regulations of the Town of Taylorsville, North Carolina*.

Section 150.02. Authority

The Town Commissioners of the Town of Taylorsville, pursuant to the authority conferred by an Act of the General Assembly of the State of North Carolina, (General Statutes 160A-371 et seq) does hereby ordain and enact into law these Articles and Sections.

Section 150.03. Jurisdiction

The provisions of this chapter shall apply within the corporate limits of Taylorsville and within the territory beyond such corporate limits referred to as the Town's extraterritorial jurisdiction as shown on the Official Zoning Map of Taylorsville.

Section 150.04. Purpose

The purpose of this ordinance is to establish procedures and standards for the development and subdivision of real estate within the corporate limits and extraterritorial jurisdiction of the Town of Taylorsville in an effort to, among other things, insure proper legal description, identification, monumentation, and recordation of real estate boundaries; further the orderly layout and appropriate use of the land; provide safe, convenient and economic circulation of vehicular traffic; provide adequate building sites which are readily accessible to emergency vehicles; assure the proper installation of streets and utilities; promote the eventual elimination of unsafe or unsanitary conditions because of undue concentration of population; and help conserve and protect the physical and economic resources of the Town of Taylorsville and its environs.

Section 150.05. Thoroughfare Plans

Where a proposed subdivision includes any part of a thoroughfare which has been designated as such upon the officially adopted thoroughfare plan of the Town, such part of such thoroughfare plan shall be platted by the subdivider in the location shown on the thoroughfare plan and at the width specified in the thoroughfare plan or this ordinance.

Section 150.06. Zoning and Other Plans

Proposed subdivisions must comply in all respects with the requirements of the zoning ordinance in effect in the area to be subdivided, and any other officially adopted plans.

Section 150.07. School Sites on Land Use Plan

If the Town of Taylorsville and the Alexander County Board of Education have jointly determined the specific location and size of any school sites to be reserved and this information appears in the comprehensive land use plan, the Town Planning Board shall immediately notify the Board of Education whenever a sketch plan for a subdivision is submitted which includes all or part of a school site to be reserved. The Board of Education shall promptly decide whether it still wishes the site to be reserved. If the Board of Education does not wish to reserve the site, it shall so notify the Planning Board. If the Board of Education does wish to reserve the site, the subdivision shall not be approved without such reservation. The Board of Education shall then have eighteen (18) months beginning on the date of final approval of the subdivision within which to acquire the site by purchase or by initiating condemnation proceedings. If the Board of Education has not purchased or begun proceedings to condemn the site within eighteen (18) months, the subdivider may treat the land as freed of the reservation.

**ARTICLE B
DEFINITIONS**

Section 150.10. Subdivision Defined

For the purpose of this ordinance, a subdivision shall include all divisions of a tract or parcel of land into two (2) or more lots, building sites, or other divisions for the purpose, whether immediate or future, of sale or building development, and shall include all divisions involving the dedication of a new street or a change in existing streets; provided, however, that the following shall not be included within the definition nor subject to the regulations prescribed by this ordinance:

- a. The combination or recombination of portions of previously platted lots where the total number of lots is not increased and the resultant lots are equal to or exceed the standards of the Town as required by this chapter.
- b. The division of land into parcels greater than ten (10) acres where no street right-of-way dedication is involved.
- c. The public acquisition by purchase of strips of land for the widening or opening of streets.
- d. The division of a tract in single ownership whose entire area is no greater than two (2) acres into not more than three (3) lots, where no street right-of-way dedication is involved and where the resultant lots are equal to or exceed the standards of the Town of Taylorsville, as shown in its subdivision regulations, as amended.

Section 150.11. Other Definitions

For the purpose of this ordinance, certain words or terms used herein shall be defined as follows:

- (1) Block. A piece of land bounded on one or more sides by streets or roads.
- (2) Building Setback Line. A line establishing the minimum allowable distance between the nearest portion of the building foundation and the nearest right-of-way line or property line when measured perpendicular thereto.
- (3) Dedication. A gift, by the owner, or a right to use of land for a specified purpose or purposes. Because a transfer of property rights is entailed, dedication must be made by written instrument and is completed with an acceptance.
- (4) Easement. A grant by the property owner of a strip of land for a specified purpose and use by the public, a corporation, or persons.
- (5) Half Street. A street whose centerline coincides with a subdivision plat boundary, with one-half (1/2) the street right-of-way being contained within the subdivision plat. Also, any existing street to which the parcel of land to be subdivided abuts on only one side.
- (6) Lot. A parcel of land occupied or capable of being occupied by a building or a group of buildings devoted to a common use, together with the customary accessories and open spaces belonging to same.
- (7) Lot of Record. A lot which is part of a subdivision, a plat of which has been recorded in the Office of the Alexander County Register of Deeds prior to the adoption of this ordinance, or a lot described by metes and bounds, the description of which has been so recorded prior to the adoption of this ordinance.
- (8) Lot Types:
 - (i) Corner Lot. A lot which occupies the interior angle at the intersection of two street lines which make an angle of more than (45) degrees and less than 135 degrees with each other. The street line forming the least frontage shall be deemed the front of

the lot except where the two street lines are equal, in which case the owner shall be required to specify which is the front when requesting a zoning compliance certificate.

(ii) Double Frontage Lot. A continuous (through) lot which is accessible from both streets upon which it fronts.

(iii) Interior Lot. A lot other than a corner lot with only one frontage on a street.

(iv) Through Lot or a "Double Frontage Lot". A lot other than a corner lot with frontage on more than one street. Through lots abutting two streets may be referred to as double frontage lots.

(v) Reversed Frontage Lot. A lot on which the frontage is at right angles or approximately right angles (interior angles less than one hundred thirty-five (135) degrees) to the general pattern in the area. A reversed frontage lot may also be a corner lot, an interior lot or a through lot.

(vi) Single-Tier Lot. A lot which backs upon a limited access highway, a railroad, a physical barrier, or another type of land use and to which access from the rear is usually prohibited.

(vii) Flag Lot. A lot which does not meet the minimum frontage requirements and access is provided by a narrow driveway leading to the major portion of the lot.

- (9) Official Maps or Plans. Any maps or plans officially adopted by the Town of Taylorsville.
- (10) Open Space. An area (land and/or water) generally lacking in man-made structures and reserved for enjoyment in its unaltered state.
- (11) Planned Unit Development. A form of development characterized by a unified site design for a number of housing units, clustering of buildings and providing common open space, density increases, and a mix of building types. It permits the planning of a project and a calculation of densities over the entire development rather than on an individual lot-by-lot basis. The site must include two or more principal buildings. Such development shall be based on a plan that allows for flexibility of design most available under normal district requirements.
- (12) Planning and Zoning Board. The Planning and Zoning Board of the Town of Taylorsville, North Carolina.
- (13) Plat. A map or plan of a parcel of land which is to be or has been subdivided or meets the exemption requirements of Section 150.10.
- (14) Public Sewage Disposal System. A system serving two (2) or more dwelling units and approved by the Alexander County Health Department.
- (15) Recreation Area or Park. An area of land or combination of land and water resources that is developed for active and/or passive recreation pursuits with various man-made features that accommodate such activities.
- (16) Reservation. A reservation of land does not involve any transfer of property rights. It simply constitutes an obligation to keep property free from development for a stated period of time.

(17) Street. A dedicated, recorded, and accepted public right-of-way for vehicular and pedestrian circulation. The following classifications shall apply:

(i) Rural Roads

(1) Principal Arterial. A rural link in a network of continuous routes serving corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel and existing solely to serve traffic. This network would consist of interstate routes and other routes designed as principal arterials.

(2) Minor Arterial. A rural link in a network joining cities and larger towns and providing intrastate and intercounty service at relatively high overall travel speeds with minimum interference to through movement. This network would primarily serve traffic.

(3) Major Collector. A road which serves major intracounty travel corridors and traffic generators and provides access to the arterial system.

(4) Minor Collector. A road which provides service to small local communities and links locally important traffic generators with their rural hinterland.

(5) Local Road. A local road serves primarily to provide access to adjacent land and for travel over relatively short distances.

(ii) Urban Streets

(1) Major Thoroughfares. Major thoroughfares consist of interstate, other freeway and expressway links, and major streets that provide for the expeditious movement of volumes of traffic within and through urban areas.

(2) Minor Thoroughfares. Minor thoroughfares are important streets in the urban system and perform the function of collecting traffic from local access streets and carrying it to the major thoroughfare system by facilitating a minor through traffic movement and may also serve abutting property.

(3) Local Street. A local street is any link not part of a higher-order urban system that serves primarily to provide direct access to abutting land and access to higher systems.

(iii) Specific Type Rural or Urban Streets

(1) Freeway, Expressway, or Parkway. Divided multi-lane roadway designed to carry large volumes of traffic at relatively high speeds. A freeway is a divided highway providing for continuous flow of vehicles with no direct access to abutting property or streets and with access to selected crossroads provided via connecting ramps. An expressway is a divided highway with full or partial control of access and generally with grade separations at major intersections. A parkway is a highway for noncommercial traffic, with full or partial control of access, and usually located within a park or a ribbon of park-like development.

(2) Residential Collector Street. A local access street which serves as a connector street between local residential streets and the thoroughfare system. Residential collector streets typically collect traffic from 100 to 400 dwelling units.

- (3) Local Residential Street. Cul-de-sacs, loop streets less than 2,500 feet in length, or streets less than one mile in length that do not connect thoroughfares, or serve major traffic generators, and do not collect traffic from more than 100 dwelling units.
- (4) Cul-de-sac. A short street having but one end open to traffic and the other end being permanently terminated and a vehicular turnaround provided.
- (5) Frontage Road. A local street or road that is parallel to a full or partial access controlled facility and functions to provide access to adjacent land.
- (6) Alley. A public or private thoroughfare that affords only a secondary means of access to abutting property and not intended for general traffic circulation.
- (18) Subdivider. Any person, firm or corporation who subdivides or develops any land deemed to be a subdivision as herein defined.
- (19) Town Commissioners. The Town Commissioners of the Town of Taylorsville, North Carolina.
- (20) Town Engineer. The Consulting Engineer retained by the Town of Taylorsville.

Section 150.12. Word Interpretation

For the purpose of this ordinance, certain words shall be interpreted as follows:

- (1) Words used in the present tense include the future tense.
- (2) Words used in the singular number include the plural and words used in the plural number include the singular, unless the natural construction of the wording indicates otherwise.
- (3) The word "person" includes a firm, association, corporation, trust, and company as well as an individual.
- (4) The word "used for" shall include the meaning "designed for".
- (5) The word "structure" shall include the word "building".
- (6) The word "lot" shall include the words "plot", "parcel", or "tract".
- (7) The word "shall" is always mandatory and not merely directory.

ARTICLE C
PROCEDURE FOR REVIEW AND APPROVAL OF SUBDIVISION PLATS

Section 150.15. Plat Shall Be Required on Any Subdivision of Land or Any Manipulation of Property Lines or Boundaries

Pursuant to G.S. 160A-372, a final plat shall be prepared, approved, and recorded pursuant to the provisions of this ordinance whenever any subdivision of land takes place. Whenever any manipulation of property lines or property boundaries takes place within the jurisdiction of the Town of Taylorsville as established in Section 150.03 of this ordinance that is exempt from these regulations as provided by Section 150.10 of this ordinance, a plat clearly displaying such change must be presented to the subdivision administrator. Said plat must also be presented to the Alexander County Register of Deeds for recordation.

Section 150.16. Approval Prerequisite to Plat Recordation

Pursuant to G.S. 160A-373, no final plat of a subdivision within the jurisdiction of the Town of Taylorsville as established in Section 150.03 of this ordinance shall be recorded by the Register of Deeds of Alexander County until it has been approved by the proper Board or official as provided herein. To secure such approval of a final plat, the subdivider shall follow the procedures established in this article.

Section 150.17. Procedures for Review of Major and Minor Subdivisions

- (a) All subdivisions shall be considered major subdivisions except those defined as minor subdivisions in this Section. Major subdivisions shall be reviewed in accordance with the procedures in Section 150.23 through 150.25. Minor subdivisions shall be reviewed in accordance with the provisions in Section 150.18 through 150.22.
- (b) For purposes of these regulations, a minor subdivision is defined as a subdivision:
 - (1) involving not more than five (5) lots fronting on an existing approved street;
 - (2) not involving any new street or prospectively requiring any new street for access to interior property;
 - (3) not requiring extension of public sewage or water lines or creation of new drainage easements through lots to serve property at the rear;
 - (4) not adversely affecting the development of the remainder of the parcel or of adjoining property;
 - (5) creating no new or residual parcels not conforming to the requirements of these regulations; and
 - (6) all included land must be under ownership of one sponsor.

Section 150.18. Approval Process for Minor Subdivisions

If the land to be subdivided meets the requirements of a minor subdivision as defined in Section 150.17(b) above, the subdivider will not have to follow the same procedures as for a major subdivision. The review process for minor subdivisions shall be adequate to protect the public interest, but shall also provide minimum delay and expense to the subdivider. A preliminary plat is required. The following minor plat approval process may be used only where the subdivision meets the requirements of Section 150.17(b) above.

Section 150.19. Procedure for Review of Minor Subdivisions

- (a) Prior to submission of a final plat, the subdivider shall submit to the subdivision administrator three (3) copies of a sketch plan of the proposed subdivision containing the following information:
- (1) A sketch vicinity map showing the location of the subdivision in relation to neighboring tracts, subdivisions, roads, and waterways;
 - (2) The boundaries of the tract and the portion of the tract to be subdivided;
 - (3) The total acreage to be subdivided;
 - (4) The existing and proposed uses of the land within the subdivision and the existing uses of land adjoining it;
 - (5) The existing street layout and right-of-way width, lot layout and size of lots;
 - (6) The name, address and telephone number of the owner;
 - (7) The name, if any, of the proposed subdivision;
 - (8) Streets and lots of adjacent developed or platted properties;
 - (9) The zoning classification of the tract and of adjacent properties;
 - (10) The location of water and sewer facilities serving the proposed minor subdivision, if applicable;
 - (11) A statement from the Alexander County Health Department that a copy of the sketch plan has been submitted to them, if septic tanks or other on-site water or wastewater systems are to be used in the subdivision.
- (b) The subdivision administrator shall review the sketch plan for general compliance with the requirements of this article, and shall advise the subdivider or his authorized agent of the regulations pertaining to the proposed minor subdivision and the procedures to be followed in the preparation and submission of the final plat.
- (c) The subdivision administrator, after determining that all requirements of this article have been met, shall advise the subdivider to proceed with the preparation of a final plat, which conforms to the submitted sketch plan. The approval of the sketch plan shall in no way be construed as constituting official approval of the final plat.

Section 150.20. Dispute of Findings

In the event that the subdivider disagrees with any findings of the subdivision administrator concerning approval of a sketch plan of a minor subdivision, the matter shall be taken to the Town Commissioners for a decision. No final plat shall be prepared until the Town Commissioners have acted on the disputed sketch plan.

Section 150.21. Final Plat for Minor Subdivisions

- (a) The subdivision administrator shall review the final plat for complete compliance with the requirements outlined for final plat approval of these minor subdivision regulations. The final plat shall be complete and show all information required for final plats in Section

150.25, and all certifications and notarizations required in Section 150.22 for final plat approval of a minor subdivision.

- (b) The final plat shall be prepared by a Registered Land Surveyor currently licensed and registered in the State of North Carolina by the North Carolina State Board of Registration for professional Engineers and Land Surveyors. The final plat shall conform to the provisions for plats, subdivisions, and mapping requirements set forth in G.S. 47-30 and the Manual of Practice for Land Surveying in North Carolina.
- (c) Three (3) copies of the final plat shall be submitted to the subdivision administrator. One (1) of these shall be on reproducible material; two (2) shall be black or blue line paper prints. Material and drawing medium for the original shall be in accordance with the Manual of Practice for Land Surveying in North Carolina, where applicable, and the requirements of the Alexander County Register of Deeds.
- (d) The final plat shall be of a size suitable for recording with the Alexander County Register of Deeds and shall be at a scale of not less than one (1) inch equals two hundred (200) feet. Maps may be placed on more than one sheet with appropriate match lines.

Section 150.22. Certifications to be Depicted on Final Plat (Minor Subdivision)

- (a) The final plat shall meet the specifications in Section 150.25. The following signed certificates shall appear on all three (3) copies of the final plat:

(1) 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 the Town of Taylorsville and that I hereby adopt this plan of subdivision with my free consent and establish minimum building setback lines as noted.

Owner

Date

(2) Certificate of Survey and Accuracy

In accordance with the Manual of Practice for Land Surveying in North Carolina:

On the face of each map prepared for recordation there shall appear a certificate acknowledged before an officer authorized to take acknowledgements and executed by the person making the survey or map including deeds and any recorded data shown thereon. The certificate shall include a statement of error of closure calculated by latitudes and departures. Any lines on the map which were not actually surveyed must be clearly indicated on the map and a statement included in the certificate revealing the source of information. The certificate shall take the following general form:

State of North Carolina

Alexander County

I, _____ certify that this map was (drawn by me) (drawn under my supervision) from (an actual survey made by me) (an actual survey made

under my supervision) (deed description recorded in Book _____, Page _____, Book _____, Page _____ etc.) (Other); that the ratio of precision as calculated by latitudes and departures is 1: _____, (that the boundaries not surveyed are shown as broken lines plotted from information found in Book _____; Page _____); that this map was prepared in accordance with G.S. 47-30, as amended.

Witness my hand and seal this ___ day of _____, 20__.

Registered Land Surveyor

Official Seal

Registration Number

3) **North Carolina** **Alexander County**

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

Review Officer

Date

- (b) During its review of the final plat the subdivision administrator may appoint an engineer or surveyor to confirm the accuracy of the final plat (if agreed to by the Town Manager). If substantial errors are found, the costs shall be charged to the subdivider and the plat shall not be recommended for approval until such errors have been corrected.
- (c) If the subdivision administrator finds that the minor subdivision final plat is in full compliance with the requirements of this article, he may then present the final plat to the Town Manager for the following certification:

I hereby certify that the minor subdivision plat hereon has been found to comply with the minor subdivision regulations for the Town of Taylorsville and is hereby approved for recording in the office of the Register of Deeds by the subdivider within ninety (90) days of the date of this approval.

Town Manager

Date

- (d) If the subdivision administrator recommends disapproval of the final plat, he shall instruct the subdivider concerning resubmission of a revised plat and the subdivider may make such changes as will bring the plat into compliance with the provisions of this article and resubmit same for reconsideration by the subdivision administrator, or appeal to the Town Commissioners. If the subdivider appeals to the Town Commissioners, the Town Commissioners shall review and approve or disapprove the final plat within thirty (30) days after they receive the plat and recommendations of the subdivision administrator.

Section 150.23. Procedure for Review of Major Subdivisions

- (a) Prior to the preliminary plat submission, the subdivider may submit to the subdivision administrator two (2) copies of a sketch plan of the proposed subdivision containing the following information:
- (1) A sketch vicinity map showing the location of the subdivision in relation to neighboring tracts, subdivisions, roads, and waterways;
 - (2) The boundaries of the tract and the portion of the tract to be subdivided;
 - (3) The total acreage to be subdivided;
 - (4) The existing and proposed uses of the land within the subdivision and the existing uses of land adjoining it;
 - (6) The existing street layout and right-of-way width, lot layout and size of lots;
 - (6) The name, address and telephone number of the owner;
 - (7) The name, if any, of the proposed subdivision;
 - (8) Streets and lots of adjacent developed or platted properties;
 - (9) The zoning classification of the tract and of adjacent properties;
 - (10) The location of water and sewer facilities serving the proposed minor subdivision, if applicable
 - (11) A statement from the Alexander County Health Department that a copy of the sketch plan has been submitted to them, if septic tanks or other on-site water or wastewater systems are to be used in the subdivision.

150.23.1 Preliminary Plat Submission and Review

- (a) For every subdivision within the territorial jurisdiction established by Section 150.03 of this ordinance, which does not qualify as a minor subdivision, the subdivider shall submit a preliminary plat which shall be reviewed and approved by the Planning Board before any construction or installation of improvements may begin.
- (b) Eight (8) copies of the preliminary plat (as well as any additional copies which the subdivision administrator determines are needed to be sent to other agencies) shall be submitted to the administrator of this ordinance at least 20 days prior to the Planning Board meeting at which the subdivider desires the Planning Board to review the preliminary plat.
- (c) Preliminary plats shall meet the specifications in Section 150.25.

- (d) After having received the preliminary plat from the subdivider, the subdivision administrator shall submit copies of the preliminary plat and any accompanying material to other officials and agencies concerned with new development including, but not limited to:
 - (1) The district highway engineer as to proposed streets, highways, and drainage systems (required if new streets are to be placed on the State System);
 - (2) The county health director as to proposed water or sewerage systems (required if subdivision is in the extraterritorial jurisdiction);
 - (3) Any other agency or official designated by the Planning Board or Town official.
- (e) The Planning Board shall review the preliminary plat at or before its next regularly scheduled meeting which follows at least 20 days after the subdivision administrator receives the preliminary plat and the comments from the appropriate agencies.
- (f) The Planning Board shall, in writing, recommend approval, conditional approval with recommended changes to bring the plat into compliance, or disapproval with reasons within 20 days of its first consideration of the plat.
- (g) If the Planning Board recommends approval of the preliminary plat, it shall retain one (1) copy of the plat for its minutes, and transmit two (2) copies of the plat to the Town Commissioners with its recommendation.
- (h) If the Planning Board recommends conditional approval of the preliminary plat, it shall keep one (1) copy of the plat for its minutes, transmit two (2) copies of the plat and its recommendation to the Town Commissioners, and return the remaining copies of the plat and its recommendation to the subdivider.
- (i) If the Planning Board recommends disapproval of the preliminary plat, it shall retain one (1) copy of the plat for its minutes, transmit two (2) copies of the plat and its recommendation to the Town Commissioners, and return the remaining copy of the plat and its recommendation to the subdivider.
- (j) If the preliminary plat is disapproved, the subdivider may make the recommended changes and submit a revised preliminary plat, or appeal the decision to the Town Commissioners.
- (k) If the Planning Board does not make a written recommendation within 40 days after its first consideration of the plat, the subdivider may apply to the Town Commissioners for approval or disapproval.
- (l) If the subdivider appeals the decision of the Planning Board, he shall present the preliminary plat to the Town Commissioners at its next regularly scheduled meeting which follows the Planning Board's decision by at least twenty (20) days.

- (m) If the Town Commissioners approve the preliminary plat in the case of an appeal, such approval shall be noted on two (2) copies of the plat. One (1) copy of the plat shall be retained by Town Commissioners and one (1) copy shall be returned to the subdivider. If the Town Commissioners approve the preliminary plat with conditions, approval shall be noted on two (2) copies of the plat along with a reference to the conditions. One (1) copy of the plat along with the conditions shall be retained by Town Commissioners and one (1) copy of the preliminary plat along with the conditions shall be returned to the subdivider. If the Town Commissioners disapprove the preliminary plat, the reasons for such disapproval shall be specified in writing. One (1) copy of the plat and the reasons shall be retained by Town Commissioners and one (1) copy shall be returned to the subdivider.

150.23.2. Final Plat Submission and Review

- (a) The subdivider shall submit the final plat, so marked, to the subdivision administrator not less than 20 days prior to the Planning Board meeting at which it will be reviewed; further, the final plat for the first stage of the subdivision shall be submitted not more than twelve (12) months after the date on which the preliminary plat was approved; otherwise such approval shall be null and void, unless a written extension of this limit is granted by the Town Commissioners on or before the twelfth month anniversary of the approval.
- (b) The final plat shall be prepared by a Registered Land Surveyor currently licensed and registered in the State of North Carolina by the North Carolina State Board of Registration for Professional Engineers and Land Surveyors. The final plat shall conform to the provisions for plats, subdivisions, and mapping requirements set forth in G.S. 47-30 and the Manual of Practice for Land Surveying in North Carolina.
- (c) Nine (9) copies of the final plat shall be submitted; one (1) of these shall be on reproducible material; eight (8) shall be black or blue line paper prints. Material and drawing medium for the original shall be in accordance with the Manual of Practice for Land Surveying in North Carolina, where applicable, and the requirements of the Alexander County Register of Deeds.
- (d) The final plat shall be of a size suitable for recording with the Alexander County Register of Deeds and shall be at a scale of not less than one (1) inch equals two hundred (200) feet. Maps may be placed on more than one (1) sheet with appropriate match lines.
- (e) Submission of the final plat for subdivisions shall be accompanied by a fee of one dollar (\$1.00) per lot or twenty-five dollars (\$25.00), whichever is greater. Additionally, at the discretion of the Town Manager, all fees associated with recording the plat at the Register of Deeds shall be paid to the Town of Taylorsville, and the Town will have the plat recorded after final approval by the Town Commissioners.
- (f) The final plat shall meet the specifications in Section 150.25 of this article.

(g) The following signed certificates shall appear on all copies of the final plat:

(1) **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 the Town of Taylorsville and that I hereby adopt this plan of subdivision 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. Furthermore, I hereby dedicate all sanitary sewer, storm sewer and water lines to the Town of Taylorsville.

Owner

Date

(2) **Certificate of Survey and Accuracy**

In accordance with the Manual of Practice for Land Surveying in North Carolina:

On the face of each map prepared for recordation there shall appear a certificate acknowledged before an officer authorized to take acknowledgments and executed by the person making the survey or map including deeds and any recorded data shown thereon. The certificate shall include a statement of error of closure calculated by latitudes and departures. Any lines on the map which were not actually surveyed must be clearly indicated on the map and a statement included in the certificate revealing the source on information.

The certificate shall take the following form:

State of North Carolina Alexander County

I, _____ certify that this map was (drawn by me) (drawn under my supervision) from (an actual survey made by me) (an actual survey made under my supervision) (deed description recorded in Book __, Page __, Book __, Page __, etc.)(other); that the ratio of precision as calculated by latitudes and departure is 1:_____, (that the boundaries not surveyed are shown as broken lines plotted from information found in Book __, Page __); that this map was prepared in accordance with G.S. 47-30, as amended. Witness my hand and seal this ____ day of _____, A.D. 20__.

Registered Land Surveyor

Registration Number

Official Seal

(3) **Certificate of Approval of the Design and Installation of Streets, Utilities, and Other Required Improvements**

I hereby certify that all streets, utilities and other required improvements have been installed in an acceptable manner and according to Town

specifications and standards in the _____ Subdivision or that guarantees of the installation of the required improvements in an amount and manner satisfactory to the Town of Taylorsville have been received, and that the filing fee for this plat, in the amount of \$_____ has been paid.

Town Engineer **Date** _____

(4) If the subdivision is located outside town limits, then the following certificate must be included on the final plat.

Certificate of Approval of the Design and Installation of Public Streets:

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

SUBDIVISION ROAD CONSTRUCTION CERTIFICATION

APPROVED _____
District Engineer

DATE _____

(5) In accordance with the North Carolina General Statute 47-30, the following certification must be included on the final plat:

State of North Carolina **County of Alexander**

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

Review Officer **Date** _____

- (h) The Planning Board shall review the final plat at or before its next regularly scheduled meeting which follows at least 20 days after the subdivision administrator receives the final plat and shall recommend approval or disapproval of the final plat with reasons within 40 days of its first consideration of the plat.
- (i) During its review of the final plat the Planning Board may appoint a Registered Land Surveyor to confirm the accuracy of the final plat (if agreed to by the Town Commissioners). If substantial errors are found, the costs shall be charged to the subdivider and the plat shall not be recommended for approval until such errors have been corrected.
- (j) If the Planning Board recommends approval of the final plat, it shall transmit all copies of the plat and its written recommendations to the Town Commissioners

through the subdivision administrator. Such approval shall be shown on each copy of the final plat by the following signed certification:

The Taylorsville Planning Board hereby approves the final plat for the subdivision.

Chairman, Taylorsville Planning Board

Date

- (l) If the Planning Board recommends disapproval of the final plat, it shall instruct the subdivider concerning resubmission of a revised plat and the subdivider may make such changes as will bring the plat into compliance with the provisions of this ordinance, and resubmit same for reconsideration by the Planning Board, or appeal the decision to the Town Commissioners.
- (m) Failure of the Planning Board to make a recommendation within 40 days shall constitute grounds for the subdivider to apply to the Town Commissioners for approval.
- (n) If the Planning Board recommends approval, or if the subdivider appeals to the Town Commissioners, the Town Commissioners shall review and approve or disapprove the final plat within 30 days after the plat and recommendations of the Planning Board have been received by the subdivision administrator.
- (o) If the Town Commissioners approve the final plat, such approval shall be shown on each copy of the plat by the following signed certificate:

Certificate of Approval for Recording

I hereby certify that the subdivision plat shown hereon has been found to comply with the Subdivision Regulations of the Town of Taylorsville, North Carolina and that this plat has been approved by Town Commissioners for recording in the Office of the Register of Deeds of Alexander County.

**Mayor
Town of Taylorsville, North Carolina**

Date

- (p) If the final plat is disapproved by the Town Commissioners, the reasons for such disapproval shall be stated in writing, specifying the provisions of this ordinance with which the final plat does not comply. One (1) copy of such reasons and one (1) print of the plat shall be retained by the Town Commissioners as part of its proceedings; one (1) copy of the reasons and three (3) copies of the plat shall be transmitted to the subdivider. If the final plat is disapproved, the subdivider may make such changes as will bring the final plat into compliance and resubmit for reconsideration by the Planning Board and the Town Commissioners or by the Town Commissioners as determined by the Town Commissioners.
- (q) If the final plat is approved by the Town Commissioners, the original mylar and one (1) print of the plat shall be retained by the subdivider. One (1) print shall be

filed with the Town Clerk, and one (1) print shall be returned to the Planning Board for its records.

- (r) The subdivider shall file the approved final plat with the Register of Deeds of Alexander County within six (6) months of the Town Commissioners approval; otherwise, such approval shall be null and void.

Section 150.24. Performance, Defects, and Maintenance Guarantees

- (a) Upon approval of the preliminary plat by the Planning Board (or the Town Commissioners in the event of an appeal), the subdivider may proceed with the preparation of the final plat, and the installation of or arrangement for required improvements in accordance with the approved preliminary plat and the requirements of this ordinance. Prior to approval of a final plat, the subdivider shall have installed the improvements specified in this ordinance or guaranteed their installation as provided herein. No final plat will be accepted for review by the Planning Board or the Town Commissioners unless accompanied by written notice by the Town Manager and/or Town Engineer acknowledging compliance with the improvement and guarantee standards of this ordinance. The final plat shall constitute only that portion of the preliminary plat which the subdivider proposes to record and develop at that time; such portion shall conform to all requirements of this ordinance.
- (b) Where the required improvements have not been completed prior to the submission of the final plat for approval, the approval of said plat shall be subject to the subdivider guaranteeing the installation of said improvements in one of the following methods:
 - (1) Filing a performance or surety bond in an amount to be determined by the Town. The bond shall be payable to the Town of Taylorsville, and its duration shall be until such time as the improvements are accepted by the Town Commissioners.
 - (2) Depositing or placing in escrow a certified check or cash in an amount to be determined by the Town. Portions of the security deposit may be released as work progresses.
 - (3) Entering into an agreement with the Town guaranteeing the completion of the required work, said agreement to be binding on subsequent purchasers of the property and to be recorded at the option of the Town. The agreement shall provide that satisfactory security be furnished guaranteeing the completion of the necessary improvements before each section is developed.

Section 150.25. Information to be Contained in or Depicted on Preliminary and Final Plats

INFORMATION	<u>MINOR</u> Final	<u>MAJOR</u> Preliminary	<u>MAJOR</u> Final
Title Block Containing <ul style="list-style-type: none"> • Property designation • Name of Owner • Location (including township, county and state) • Date or dates survey was conducted and plat prepared • A scale of drawing in feet per inch listed in words or figures • Name, address, registration number of the registered land surveyor 	Yes	Yes	Yes
Name of the subdivider	Y	Y	Y
A sketch vicinity map showing the relationship between the proposed subdivision and surrounding area	Y	Y	Y
Corporate limits, township boundaries, county lines if on the subdivision tract	Y	Y	Y
Names, addresses and telephone numbers of all owners, registered land surveyors and professional engineers responsible for the subdivision	Y	Y	Y
Registration numbers and seals of professional engineers	Y	Y	Y
The exact boundaries of the tract, or portion thereof, to be subdivided, fully dimensioned by lengths and bearings, and the location of existing boundary lines of adjoining parcels	Y	Y	Y
Proposed lot lines, lot and block numbers, and approximate dimensions	Y	Y	Y
Lots numbered consecutively throughout the subdivision	Y	No	Y
North arrow and orientation	Y	Y	Y
Names of owners of adjoining properties	Y	Y	Y
Names of any adjoining subdivisions of record or proposed and under review	Y	Y	Y
Minimum building setback lines (either listed on the plat or drawn on each lot)	Y	Y	Y
Zoning classifications of the tract to be subdivided and adjoining properties	Y	Y	Y
Existing buildings or other structures, water courses, railroads, bridges, culverts, storm drains on the land to be	Y	Y	Y

subdivided. Additionally, any of the same features located on adjacent properties which may be impacted by the subdivision.			
Wooded areas, marshes, swamps, rock outcrops, ponds or lakes, streams or streambeds and any other natural features affecting the site	Y	Y	Y
<ul style="list-style-type: none"> The exact location of the flood hazard, floodway and floodway fringe from the community's FEMA maps Base flood elevation data for subdivisions which contain at least five (5) lots or fifty acres, whichever is less 	Y	Y	Y
A copy of any proposed deed restrictions or similar covenants. Such restrictions are mandatory when private recreation areas are established.	Y	No	Y
Topographic map with contour intervals of no greater than 20 feet at a scale of no less than 1:24,000 (if deemed necessary by the Subdivision Administrator)	No	No	Y
A copy of the erosion control plan submitted to the appropriate authority, if such a plan is required	Y	Y	No
All certifications required in Section 150.22 and 150.23.2(g)	Y	No	Y
Any other information considered by either the subdivider, Planning Board or the Town Commissioners to be pertinent to the review of the plat.	Y	Y	Y

STREET INFORMATION	<u>MINOR</u> Final	<u>MAJOR</u> Preliminary	<u>MAJOR</u> Final
Proposed streets	NA	Y	Y
Existing and platted streets in the proposed subdivision and on adjoining properties	Y	Y	Y
Rights-of-way locations and dimensions	Y	Y	Y
Pavement widths	NA	Y	Y
Approximate grades	NA	Y	Y
Design engineering data for all corners and curves	NA	Y	Y
Typical street cross sections	NA	Y	Y
Street names	NA	Y	Y
Street maintenance agreement in accordance with Section 150.34(e) of this ordinance	NA	No	Y
Type of street dedication; all streets must be designated "public".	NA	Y	Y

<p><i>Where public streets are involved which will be dedicated to the Town, the subdivider must submit all street plans to the subdivision administrator for approval prior to preliminary plat approval.</i></p> <p><i>Where public streets are involved which will not be dedicated to a municipality, the subdivision administrator will submit the following documents to the NCDOT District Highway Office for review:</i></p> <ul style="list-style-type: none"> • <i>A complete site layout, including any future expansion anticipated</i> • <i>Horizontal alignment indicating general curve data on the site layout plan</i> • <i>Vertical alignment indicated by percent grade, PI station and vertical curve length on site plan layout</i> • <i>The District Engineer may require the plotting of the ground profile and grade line for roads where special conditions or problems exist</i> • <i>Typical section indicating the pavement design and width, and the slopes, widths and details for either the curb and gutter or the shoulder and ditch proposed</i> • <i>Drainage facilities and drainage areas</i> 			
<p>Where streets are dedicated to the public, but not accepted into a municipal or the state system before lots are sold, a statement explaining the status of the street in accordance with Section 150.34(e) of this ordinance.</p>	NA	NA	Y
<p>If any street is proposed to intersect with a state maintained road, the subdivider shall apply for driveway approval as required by the NCDOT , Division of Highways' Manual on Driveway Regulations.</p>	NA	No	Y
<p>Evidence that the subdivider has obtained such approval</p>	NA	Y	NA

UTILITY INFORMATION	<u>MINOR</u> Final	<u>MAJOR</u> Preliminary	<u>MAJOR</u> Final
Location of all utility easements	Y	Y	Y
If deemed necessary by the Subdivision Administrator, the plans for utility layouts including: <ul style="list-style-type: none"> • Sanitary sewers • Storm sewers • Other drainage facilities, if any • Water distribution lines • Natural gas lines • Telephone lines • Electric lines Plans should illustrate connections to existing systems, showing line sizes, the location of fire hydrants, blowoffs, manholes, force mains and gate valves.	NA	Y	Y
Plans for individual water supply and sewerage disposal systems, if any	Y	Y	Y

SITE CALCULATIONS	<u>MINOR</u> Final	<u>MAJOR</u> Preliminary	<u>MAJOR</u> Final
Acreage in total tract to be subdivided	Y	Y	No
Acreage in parks and recreation areas, and other nonresidential uses	Y	Y	No
Total number of parcels created	Y	Y	No
Acreage of each lot in the subdivision	Y	Y	Y
Linear feet in streets	NA	Y	No
The name and location of any property or buildings within the proposed subdivision or within any contiguous property that is located on the US Department of Interior's National Register of Historic Places	Y	Y	Y
Sufficient data to determine readily and reproduce on the ground the location, bearing and length of every street line, lot line, boundary line (with errors of closure), block line and building line, whether curved or straight, and including true north point. This should include the radius, central angle, point of tangency, tangent distance and arcs and chords of all curved streets and curved property lines. All dimensions should be to the nearest one-tenth (1/10) of a foot and angles to the nearest minute.	Y	No	Y
The accurate location and description of all monuments, markers and control points	Y	No	Y

Section 150.26. Recombination of Land

- (a) Any plat or any part of a plat may be vacated by the owner at any time before the sale of any lot in the subdivision by a written instrument to which a copy of such plat shall be attached, declaring the same to be vacated.

- (b) Such an instrument shall be approved by the same agencies as approved the final plat. The governing body may reject any such instrument which abridges or destroys any public rights in any of its public uses, improvements, streets or alleys.
- (c) Such an instrument executed, acknowledged or approved and recorded and filed shall operate to destroy the force and effect of the recording of the plat so vacated, and to divest all public rights in the streets, alleys, and public grounds, and all dedications laid out or described in such plat.
- (d) When lots have been sold, the plat may be vacated in the manner provided in Section 150.26 (a) through (c) by all the owners of the lots in such plat joining in the execution of such writing.

Section 150.27. Resubdivision Procedures

For any replatting or resubdivision of land, the same procedures, rules and regulations shall apply as prescribed herein for an original subdivision.

Sections 150.28 through 150.29 reserved.

**ARTICLE D
REQUIRED IMPROVEMENTS, DEDICATION, RESERVATION, AND MINIMUM STANDARDS
OF DESIGN**

Section 150.30. General

Each subdivision shall contain the improvements specified in this article, which shall be installed in accordance with the requirements of this ordinance and paid for by the subdivider, unless other means of financing is specifically stated in this ordinance. Land shall be dedicated and reserved in each subdivision as specified in this article. Each subdivision shall adhere to the minimum standards of design established by this article.

Section 150.30.1 Cost of Improvements

For land located within the corporate limits of the Town of Taylorsville and at the discretion of the Town Commissioners when funds are available, the Town may assist with the costs of street improvements (after approval of final grading), utilities and sidewalks. The subdivider is responsible for the remainder of the costs. For land lying *outside* the town limits and within the ETJ, the subdivider will bear all costs of improvements.

Section 150.31. Suitability of Land

- (a) Land which has been determined by the Town Commissioners on the basis of engineering or other expert surveys to pose an ascertainable danger to life or property by reason of its unsuitability for the use proposed shall not be platted for that purpose, unless and until the subdivider has taken the necessary measures to correct said conditions and to eliminate said dangers.
- (b) Areas that have been used for disposal of solid waste shall not be subdivided.
- (c) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

Section 150.32. Name Duplication

The name of the subdivision shall not duplicate nor closely approximate the name of an existing subdivision within Alexander County.

Section 150.33. Subdivision Design

150.33.1 Blocks

- (a) The lengths, widths, and shapes of blocks shall be determined with due regard to: provision of adequate building sites suitable to the special needs of the type of use contemplated; zoning requirements; needs for vehicular and pedestrian circulation; control and safety of street traffic; limitations and opportunities of topography; and convenient access to water areas.

(b) Blocks shall be wide enough to allow two tiers of lots of minimum depth, except where fronting on major streets or prevented by topographic conditions, in which case a single tier of lots may be approved.

(d) Where deemed necessary by the Planning Board, a pedestrian crosswalk at least fifteen (15) feet in width may be required to provide convenient public access to a public area such as a park or school, to a water area, or to areas such as shopping centers, religious or transportation facilities.

(e) Block numbers shall conform to the County or Town street numbering system, if applicable.

150.33.2 Lots

(a) All lots in new subdivisions shall conform to the zoning requirements of the district in which the subdivision is located. Conformance to zoning requirements means, among other things, that the smallest lot in the subdivision must meet all dimensional requirements of the zoning ordinance. It is not sufficient merely for the average lot to meet zoning requirements.

(b) Lots shall meet any applicable Alexander County Health Department requirements.

(c) Flag lots are discouraged, but may be permitted in unique circumstances with the approval of the Planning Board.

(d) Double frontage lots shall be avoided wherever possible.

(e) Side lot lines shall be substantially at right angles to or radial to street lines.

150.33.3 Easements

(a) Easements for underground or above ground utilities shall be provided, where necessary, across lots or centered on rear or side lot lines and shall be at least 25 feet wide for water and sanitary sewer lines and as required by the companies involved, for telephone, gas and power lines. The Town Commissioners will determine whether one (1) easement is sufficient or whether several easements are necessary to accommodate the various facilities and the subdivider shall provide the required easements.

(b) Where a subdivision is traversed by a stream or drainage way, a drainage easement shall be provided conforming with the lines of such stream and of sufficient width as will be adequate for the purpose.

Section 150.34. Type of Street Required

(a) All subdivision lots shall abut on a public street.

(b) All public streets shall be built to the standards of this ordinance and all other applicable standards of the Town of Taylorsville or the North Carolina Department of Transportation (when outside the Town limits).

- (c) Public streets not dedicated to the Town which are eligible for acceptance into the State Highway System shall be constructed to the standards necessary to be put on the State Highway System or the standards in this ordinance, whichever is stricter, in regard to each particular item and shall be put on such system.
- (d) Streets not dedicated to the Town which are not eligible to be put on the State Highway System because there are too few lots or residences shall, nevertheless, be dedicated to the public and shall be in accordance with the standards in this ordinance or the standards necessary to be put on the State Highway System, whichever is stricter in regard to each particular item, so as to be eligible to be put on the system at a later date.
- (e) A written maintenance agreement with provisions for maintenance of the street until it is put on the State System shall be included with the final plat.

Section 150.35. Subdivision Street Disclosure Statement

- (a) All streets shown on the final plat shall be designated in accordance with G.S. 136-102.6 and designation as public shall be conclusively presumed an offer of dedication to the public.
- (b) Where streets are dedicated to the public but not accepted into a municipal system or the State system, before lots are sold, a statement explaining the status of the street shall be included with the final plat.

Section 150.36. Half-Streets

- (a) The dedication of half streets of less than fifty (50) feet at the perimeter of a new subdivision shall be prohibited. If circumstances render this impractical, adequate provision for the concurrent dedication of the remaining half of the street must be furnished by the subdivider. Where there exists a half street in an adjoining subdivision, the remaining half shall be provided by the proposed development.

Section 150.37. Marginal Access Streets

Where a tract of land to be subdivided adjoins a principal arterial street, the subdivider may be required to provide a marginal access street parallel to the arterial street or reverse frontage on a minor street for the lots to be developed adjacent to the arterial. Where reverse frontage is established, private driveways shall be prevented from having direct access to the principal arterial.

Section 150.38. Access to Adjacent Properties

Where, in the opinion of the Town Commissioners, it is necessary to provide for street access to an adjoining property, proposed streets shall be extended by dedication to the boundary of such property and a temporary turnaround provided. Adequate turnaround facilities shall be provided as determined by the Planning Board and approved by the Town Commissioners.

Section 150.39. Nonresidential Streets

The subdivider of a nonresidential subdivision shall provide streets in accordance with the North Carolina Department of Transportation, Division of Highways' Subdivision Roads Minimum

Construction Standards, January 1, 2000, as amended, and the standards in this ordinance, whichever are stricter in regard to each particular item.

Section 150.40. Design Standards of Streets

The design of all streets and roads within the jurisdiction of this ordinance shall be in accordance with the accepted policies of the North Carolina Department of Transportation, Division of Highways, as taken or modified from the American Association of State Highway and Transportation Officials (AASHTO) manuals. The N.C. Department of Transportation, Division of Highways' Subdivision Roads Minimum Construction Standards, January 1, 2000, as amended, shall apply for any items not included in this ordinance, or where stricter than this ordinance. Curb and gutter, swales, or ditches shall be installed as prescribed by the Town Engineer.

Section 150.41. Rights-of-Way Widths

- (a) Right-of-way widths shall not be less than the following and shall apply except in those cases where right-of-way requirements have been specifically set out in the thoroughfare plan.

Rural	Minimum Right-of-Way (feet)
Principal Arterial Freeways	350
Other	200
Minor Arterial	100
Major Collector	100
Minor Collector	60
Local Road	45
Urban	Minimum Right-of-Way (feet)
Major Thoroughfare other than Freeway and Expressway	90
Minor Thoroughfare	60
Local Street	45
Cul-de-sac	50' radius

- (b) The subdivider will only be required to dedicate a maximum of 100 feet of right-of-way. In cases where over 100 feet of right-of-way is desired, the subdivider will be required only to reserve the amount in excess of 100 feet. In all cases in which right-of-way is sought for an access controlled facility, the subdivider will only be required to make a reservation.

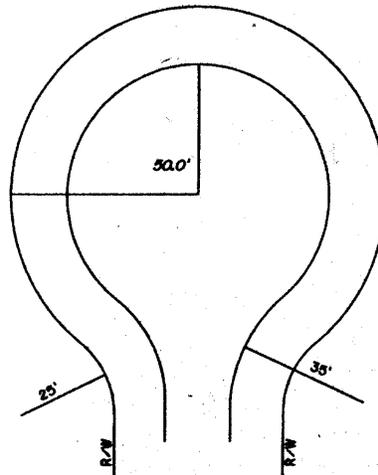
Section 150.42. Pavement Type

All road construction shall be in accordance with the latest edition of the Standard Specifications for Roads and Structures as published by the North Carolina Department of Transportation – Division of Highways. Condition of subgrade to be determined by the Town Engineer.

Widths for street and road classifications other than local shall be as required by the thoroughfare plan. Width of local roads and streets shall be as follows:

Road type	w/Curb and gutter (feet)	w/o Curb & Gutter
Local Residential, Local Street	26, to face of curb	24
Residential Collector	34	24
Cul-de-sac*		

- * The distance from the edge of the pavement of the turnaround to the right-of-way line shall not be less than the distance from the edge of the pavement to the right-of-way line on the street *approaching* the turnaround, as illustrated below.



Section 150.43. Geometric Characteristics

The standards outlined below shall apply to all subdivision streets proposed for addition to the State Highway System (or Municipal Street System). In cases where a subdivision is sought adjacent to a proposed thoroughfare corridor, the requirements of dedication and reservation discussed in Section 150.34 (b) shall apply.

150.43.1 Design Speed

Minimum design speeds for subdivision-type streets shall be in accordance with *A Policy on Geometric Design of Highways and Streets* (AASHTO).

150.43.2 Maximum and Minimum Grades

- (a) The maximum grades in percent shall be:

Design Speed	Level	Rolling	Mountainous
60	3	4	6
50	4	5	7
40	5	6	8
30		9	10
20			12

- (b) A minimum grade for curbed streets normally should not be less than 0.5%, a grade of 0.35% may be allowed where there is a high type pavement accurately crowned and in areas where special drainage conditions may control.

- (c) Grades for 100 feet each way from intersections should not exceed 5%.
- (d) For streets and roads with projected annual average daily traffic less than 250, short grades, less than 500 feet long, may be no greater than 15.0%.

150.43.3 Sight Distance

Sight distance provided for stopped vehicles at intersections shall be in accordance with *A Policy on Geometric Design of Highways and Streets* (AASHTO).

150.43.4 Intersections

- (a) It is recommended that no street shall intersect any other street at an angle less than ninety (90) degrees. However, at the discretion of the Planning Board, a street may intersect at less than 90 degrees but more than seventy-five (75) degrees. Under no circumstances may a street intersect at less than a 75-degree angle.
- (b) Property sight lines shall be maintained at all intersections of streets. Measured along the centerline, there shall be a clear sight triangle of seventy-five (75) feet, (one-hundred fifty (150) feet for major streets), from a point of intersection. This shall be indicated on all plans. No building or obstruction shall be permitted in this area.
- (c) Offset intersections are to be avoided unless the Division of Highways grants exception. Intersections which cannot be aligned should be separated by a minimum length of 200 feet between survey center lines.
- (d) Intersections with arterials, collectors and thoroughfares shall be at least one thousand (1000) feet from center line to center line, or more if required by the North Carolina Department of Transportation.

150.43.5 Cul-de-sacs

- (a) Permanent dead-end streets shall not exceed eight hundred (800) feet in length depending on topography and shall be provided with a turn-around having a right-of-way radius of fifty (50) feet.
- (b) Where one cul-de-sac intersects with another cul-de-sac, the end of each cul-de-sac shall be no more than 800 feet from a through street.
- (c) The distance from the edge of pavement on the vehicular turnaround to the right-of-way line shall not be less than the distance from the edge of pavement to right-of-way line on the street approaching the turnaround, as illustrated in Section 150.42.
- (d) Cul-de-sacs should not be used to avoid connection with an existing street or to avoid the extension of an important street, unless an

exception is recommended by the Planning Board and granted by the Town Commissioners.

150.43.6 Alleys

- (a) Alleys shall be required to serve lots used for commercial and industrial purposes except that this requirement may be waived where other definite and assured provision is made for service access.
- (b) The width of an alley shall be at least twenty (20) feet.
- (c) Dead-end alleys shall be avoided where possible, but if unavoidable, shall be provided with adequate turnaround facilities at the dead-end as may be recommended by the Planning Board and approved by the Town Commissioners.
- (d) Sharp alignment or grade changes shall be avoided.
- (e) All alleys shall be designed in accordance with N.C. Department of Transportation Standards.

Section 150.44. Utilities

Storm and sanitary sewer, water mains, and fire hydrants shall be designed by a registered engineer and shall be approved by the Town Engineer.

150.44.1 Water and Sanitary Sewer Systems

Each lot in all subdivisions within the corporate limits of the Town of Taylorsville shall be provided with an extension of the municipal water and sanitary sewer systems.

150.44.2 Storm Water Drainage System

The subdivider shall provide a surface water drainage system constructed to the standards of the North Carolina Department of Transportation, as reflected in Handbook for the Design of Highway Surface Drainage Structures, 1973), subject to review by the Town Engineer.

- (1) No surface water shall be channeled or directed into a sanitary sewer.
- (2) Where feasible, the subdivider shall connect to an existing storm drainage system.
- (3) Where an existing storm drainage system cannot feasibly be extended to the subdivision, a surface drainage system shall be designed to protect the proposed development from water damage.
- (4) Surface drainage courses shall have side slopes of at least three (3) feet of horizontal distance for each one (1) foot of vertical distance, and courses shall be of sufficient size to accommodate the drainage area without flooding, and designed to comply with the standards

and specifications for erosion control of the North Carolina Sedimentation Pollution Control Act, G.S. 243-34.12, Chapter 113A, Article 4 and the N.C. Administrative Code Title 15, Chapter 4, and any locally adopted erosion and sedimentation control ordinances.

- (5) The minimum grade along the bottom of a surface drainage course shall be a vertical fall of at least one (1) foot in each two hundred (200) feet of horizontal distance.
- (6) Streambanks and channels downstream from any land disturbing activity shall be protected from increased degradation from accelerated erosion caused by increased velocity of runoff from the land disturbing activity in accordance with the North Carolina Sedimentation Pollution Control Act, G.S. 143-34.12, Chapter 113A, Article 4 and the North Carolina Administrative Code Title 15, Chapter 4.
- (7) Anyone constructing a dam or impoundment within the subdivision must comply with the North Carolina Dam Safety Law of 1967 and the North Carolina Administrative Code Title 15, Subchapter 2 K.
- (8) In all areas of special flood hazards, all subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

Section 150.45 Other Requirements

150.45.1 Through Traffic Discouraged on (Residential) Local Streets

Local streets shall be laid out in such a way that their use by through traffic will be discouraged. Streets shall be designed or walkways dedicated to assure convenient access to parks, playgrounds, schools or other places of public assembly.

150.45.2 Sidewalks

Sidewalks shall be constructed on such streets as the Board of Commissioners, on recommendation from the Planning Board, consider necessary. Such sidewalks shall be constructed to a minimum width of five (5) feet, and shall consist of a minimum thickness of four (4) inches of concrete. All sidewalks shall be placed in the street right-of-way, unless the development is platted as a planned unit or group development. Sidewalks shall consist of a minimum of six (6) inches of concrete at driveway crossings.

150.45.3 Street Names

Proposed streets that are obviously in alignment with existing streets shall be given the same name. In assigning new names, duplication of existing names shall be avoided and in no case shall the proposed name be phonetically similar to existing names in the county irrespective of the use of a suffix such as street, road, drive, place, court, etc. Street names shall be subject to the approval of the Town Commissioners.

150.45.4 Street Name Signs

The subdivider shall be required to provide and erect street name signs to the Town standards at all intersections within the subdivision.

150.45.5 Permits for Connection to State Roads

An approved permit is required for connection to any existing state system road. This permit is required prior to any construction on the street or road. The application is available at the office of the nearest District Engineer of the Division of Highways.

150.45.6 Offsets to Utility Poles

Poles for overhead utilities should be located clear of roadway shoulders, preferably at least 30 feet from the edge of pavement on major thoroughfares. On streets with curb and gutter, utility poles should be set back a minimum distance of six (6) feet from the face of curb.

150.45.7 Wheelchair Ramps

In accordance with Chapter 136, Article 2A, Section 136-44.14, all street curbs in North Carolina being constructed or reconstructed for maintenance procedures, traffic operations, repairs, correction of utilities, or altered for any reason after September 1, 1973, shall provide wheelchair ramps for the physically handicapped at all intersections where both curb and gutter and sidewalks are provided and at other major points of pedestrian flow.

Section 150.46. Placement of Monuments

Unless otherwise specified by this ordinance, the Manual of Practice for Land Surveying as adopted by the N.C. State Board of Registration for Professional Engineers and Land Surveyors, under the provisions of Title 21 of the North Carolina Administrative Code, Chapter 56 (21 NCAC 56), shall apply when conducting surveys for subdivisions; to determine the accuracy for surveys and placement of monuments, control corners, markers, and property corner ties; to determine the location, design and material of monuments, markers, control corners, and property corner ties; and to determine other standards and procedures governing the practice of land surveying for subdivisions.

Section 150.47. Construction Procedures

- (a) No construction or installation of improvements shall commence in a proposed subdivision until the preliminary plat has been approved, and all plans and specifications have been approved by the appropriate authorities.
- (b) No building, zoning or other permits shall be issued for erection of a structure on any lot not of record at the time of adoption of this ordinance until all the requirements of this ordinance have been met.
- (c) The subdivider, prior to commencing any work within the subdivision, shall make arrangements with the administrator of this ordinance to provide for adequate inspection.

- (d) The approving authorities having jurisdiction or their representatives shall inspect and approve all completed work prior to release of the sureties.

Section 150.48. Oversized Improvements

The Town of Taylorsville may require installation of certain oversized utilities or the extension of utilities to adjacent property when it is in the interest of future development. If the Town requires the installation of improvements in excess of the standards required in this ordinance, including all standards adopted by reference, the Town shall pay the cost differential between the improvement required and the standards in this ordinance.

Section 150.49 reserved.

**ARTICLE E
LEGAL PROVISIONS**

Section 150.50. General Procedure for Plat Approval

- (a) After the effective date of this ordinance, no subdivision plat of land within the Town's jurisdiction shall be filed or recorded until it has been submitted to and approved by the appropriate Board or official as set forth in Section 150.17 of this ordinance, and until this approval is entered in writing on the face of the plat by the Town Commissioners for major subdivisions, or the Town Manager for minor subdivisions.
- (b) The Register of Deeds shall not file or record a plat of a subdivision of land located within the territorial jurisdiction of the Town that has not been approved in accordance with these provisions, nor shall the Clerk of Superior Court order or direct the recording of a plat if the recording would be in conflict with this section.

Section 150.51. Statement by Owner

The owner of land shown on a subdivision plat submitted for recording, or his authorized agent, shall sign a statement on the plat stating whether or not any land shown thereon is within the subdivision-regulation jurisdiction of the Town of Taylorsville.

Section 150.52. Effect of Plat Approval on Dedications

Pursuant to G.S. 160A-374, the approval of a plat shall not be deemed to constitute or affect the acceptance by the municipality or public of the dedication of any street or other ground, public utility line, or other public facility shown on the plat. However, the Town Commissioners may by resolution accept any dedication made to the public of lands or facilities for streets, parks, public utility lines, or other public purposes, when the lands or facilities are located within its subdivision regulation jurisdiction. Acceptance of dedication of lands or facilities located within the subdivision regulation jurisdiction but outside the corporate limits of the municipality shall not place on the Town any duty to open, operate, repair, or maintain any street, utility line, or other land or facility, and the municipality shall in no event be held to answer in any civil action or proceeding for failure to open, repair or maintain any street located outside its corporate limits.

Section 150.53. Penalties for Violation

- (a) After the effective date of this ordinance, any person who, being the owner or agent of the owner of any land located within the territorial jurisdiction of this ordinance, thereafter subdivides his land by reference to, exhibition of, or any other use of a plat showing a subdivision of the land before the plat has been properly approved under the terms of this ordinance and recorded in the Office of the Alexander County Register of Deeds, shall be guilty of a misdemeanor. The description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring land shall not exempt the transaction from this penalty. The Town of Taylorsville through its attorney or other official designated by the Town Commissioners may enjoin illegal subdivision, transfer or sale of land by action for injunction. Further, violators of this ordinance shall be subject, upon conviction, to fine and/or imprisonment as provided by G.S. 14-4.
- (b) The violation of any provision of this ordinance shall subject the offender to a civil penalty in the amount of fifty dollars (\$50.00) to be recovered by the Town. Violators shall be issued a written citation which must be paid within ten (10) days.
- (c) Each day's continuing violation of this ordinance shall be a separate and distinct offense.

- (d) Notwithstanding Section 150.50(b) above, this ordinance may be enforced by appropriate equitable remedies issued from a court of competent jurisdiction.
- (e) Nothing in this section shall be construed to limit the use of remedies available to the Town. The Town may seek to enforce this ordinance by using any one, all, or a combination of remedies.

Section 150.54. Separability

Should any section or provision of this ordinance be decided by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole or any part thereof other than the part so declared to be unconstitutional or invalid.

Section 150.55. Variances

Where, because of topographical or other conditions peculiar to the site, strict adherence to the provisions of the regulations in this chapter would cause unnecessary hardship, the Planning Board may recommend and the Town Commissioners authorize a variance, if such variance can be made without destroying the intent of this ordinance. Any variance thus authorized is required to be entered in writing in the minutes of the Planning Board and of the Town Commissioners and the reasoning on which the departure was justified set forth.

Section 150.56. Amendments

- (a) The Town Commissioners may from time to time amend the terms of this ordinance, but no amendment shall become effective unless it shall have been proposed by or shall have been submitted to the Planning Board for review and recommendation. The Planning Board shall have forty-five (45) days from the time the proposed amendment is submitted to it within which to submit its report. If the Planning Board fails to submit a report within the specified time, it shall be deemed to have recommended approval of the amendment.
- (b) No amendment shall be adopted by the governing body until they have held a public hearing on the amendment. Notice of the hearing shall be published in a newspaper of general circulation in the Town's area at least once a week for two (2) successive calendar weeks prior to the hearing. The initial notice shall appear not more than twenty-five (25) nor less than ten (10) days prior to the hearing date. In computing the ten-to-twenty-five day period, the date of first publication shall not be counted, but the date of the hearing shall be counted.

Section 150.57. Abrogation

It is not intended that this ordinance repeal, abrogate, annul, impair, or interfere with any existing easements, covenants, deed restrictions, agreements, rules, regulations, or permits previously adopted or issued pursuant to law. However, where this ordinance imposes greater restrictions, the provisions of this ordinance shall govern.

Section 150.58. Administrator

The Town Manager or his designee(s) (Town Planner) is hereby appointed to serve as subdivision administrator.

Section 150.59. Re-enactment and Repeal of Existing Subdivision Ordinance

This chapter in part carries forward by re-enactment some of the provisions of the subdivision regulations of Taylorsville, adopted by the Town Council in September, 1966, as amended, and it is not the intention to repeal but rather to re-enact and continue in force such existing provisions so that all rights and liabilities that have accrued hereunder are preserved and may be enforced. All provisions of the subdivision regulations of the Town of Taylorsville enacted in September, 1966, as amended, which are not continued in effect are hereby repealed. All suits at law or in equity and/or all prosecutions resulting from the violation of any subdivision regulations heretofore in effect, which are now pending in any of the courts of this state or the United States, shall not be abated or abandoned by reason of the adoption of this chapter, but shall be prosecuted to their finality the same as if this chapter had not been adopted, any and all violations of the existing subdivision regulations, prosecutions for which have not yet been instituted, may be hereafter filed and prosecuted, and nothing in this chapter shall be construed as to abandon, abate or dismiss any litigation or prosecution now pending, and/or which may heretofore have been instituted or prosecuted.

Section 150.60. Adoption and Effective Date

On a motion by _____ and a second by _____, this Ordinance was adopted on this the ____ day of _____, 2000.

Dr. Glenn P. Deal
Mayor, Town of Taylorsville

ATTEST:

Yolanda T. Prince
Town Clerk

SEAL

Appendix Four - 2002 FEMA Plan Approval Letter



U.S. Department of Homeland Security
Region IV
3003 Chamblee Tucker Road
Atlanta, GA 30341



FEMA

RECEIVED JUL 08 2004

June 29, 2004

Dr. Kenneth B. Taylor, Director
North Carolina Division of Emergency Management
4713 Mail Service Center
Raleigh, North Carolina 27699

Reference: Multi-Jurisdictional Hazard Mitigation Plan: Alexander County

Dear Dr. Taylor:

We are pleased to inform you that the revisions to the Alexander County Multi-jurisdictional Plan are in compliance with the Federal hazard mitigation planning standards resulting from the Disaster Mitigation Act of 2000, as contained in 44 CFR 201.6. The Plan is approved for a period of 5 years, to June 15, 2009.

This plan approval extends to the following participating jurisdictions that provided copies of their resolutions adopting the plan:

- Alexander County
- Town of Taylorsville

The approved participating jurisdictions are hereby-eligible applicants through the State for the following mitigation grant programs administered by FEMA:

- Hazard Mitigation Grant Program (HMGP), our post- disaster-funding program;
- Pre-Disaster Mitigation Competitive program (PDM-C) for mitigation projects and planning grants;
- Flood Mitigation Assistance program (FMA), limited to Repetitive Loss properties insured through the National Flood Insurance Program (NFIP).

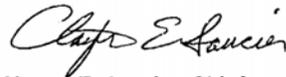
We commend the participating jurisdictions for development of a solid, workable plan that will guide hazard mitigation activities over the coming years. We strongly encourage each community to perform an annual review and assessment of the effectiveness of their hazard mitigation plan; however, a formal plan update is required at least every five (5) years. We also encourage each community to conduct a plan update process within one year of being included within a Presidential Disaster Declaration or of the adoption of major modifications to their local Comprehensive Land Use Plan or other plans that affect hazard mitigation or land use and development.

www.fema.gov

When the Plan is amended or revised, it must be resubmitted through the State as a "plan update" and is subject to a formal review and approval process by our office. If the Plan is not updated prior to the required 5-year update, please ensure that the Draft update is submitted at least 6 months prior to expiration of this plan approval on June 15, 2009.

The State and participating jurisdictions should be commended for their close coordination and communications with our office in the review and subsequent approval of the plan. If you have any questions or need any additional information please do not hesitate to contact Ernest Hunter, of my staff at 770-220-5495.

Sincerely,



Clayton E. Saucier, Chief
Hazard Identification and
Risk Assessment Branch
Federal Insurance and Mitigation Division

Highway Commodity Flow Study



**ALEXANDER COUNTY,
NORTH CAROLINA**

Conducted by
envir**SAFE**

COMMODITY FLOW STUDY REPORT

Introduction:

Alexander County Emergency Management Agency retained EnviroSafe Consulting & Investigations to conduct a commodity flow study to enhance the County's efforts in emergency planning, response and prevention. This study identifies the nature, quantities and routes of hazardous substances transported throughout the county.

Just what is a commodity flow study? First, a commodity itself is any physical good moving, or any good being transported. A commodity flow study is the process of compiling a report on the goods that are moving through a particular area. The size and complexity of a commodity flow study is primarily dependant on the size of the area under analysis.



Limiting a commodity flow study to a local area provides better accuracy and allows better decision-making by local officials and policy-makers. This particular study addresses the flow of hazardous materials being shipped through Alexander County, North Carolina.

of the following characteristics¹:

A material is hazardous if it exhibits one or more

- Class 1: Explosives
 - Division 1.1 Explosives with a mass explosion hazard
 - Division 1.2 Explosives with a projection hazard
 - Division 1.3 Explosives with predominantly a fire hazard
 - Division 1.4 Explosives with no significant blast hazard
 - Division 1.5 Very insensitive explosives
 - Division 1.6 Extremely insensitive explosive articles
- Class 2: Gases
 - Division 2.1 Flammable gases
 - Division 2.2 Nonflammable gases
 - Division 2.3 Poison gas
 - Division 2.4 Corrosive gases
- Class 3: Flammable liquids.
 - Division 3.1 Flashpoint below -18°C (0°F)

- Division 3.2 Flashpoint -18°C and above, but less than 23°C (73°F)
 - Division 3.3 Flashpoint 23°C and up to 61°C (141°F)
- Class 4: Flammable solids; spontaneously combustible materials; and materials that are dangerous when wet
 - Division 4.1 Flammable solids
 - Division 4.2 Spontaneously combustible materials
 - Division 4.3 Materials that are dangerous when wet
- Class 5: Oxidizers and organic peroxides
 - Division 5.1 Oxidizers
 - Division 5.2 Organic peroxides
- Class 6: Poisons and etiologic materials
 - Division 6.1 Poisonous materials
 - Division 6.2 Etiologic (infectious) materials
- Class 7: Radioactive materials
 - Any material, or combination of materials, that spontaneously gives off ionizing radiation. It has a specific activity greater than 0.002 micro curies per gram.
- Class 8: Corrosives
 - A material, liquid or solid, that causes visible destruction or irreversible alteration to human skin or a liquid that has a severe corrosion rate on steel or aluminum.
- Class 9: Miscellaneous
 - A material which presents a hazard during transport, but which is not included in any other hazard class (such as a hazardous substance or a hazardous waste).

¹Definitions from USDOT <http://www.myregs.com/dotrspa/>

The information in this study allows the development of better disaster preparedness plans, helps to determine whether emergency response equipment is appropriately placed and whether responder training is adequate, and can assist officials to minimize hazardous material releases.

During the data collection phase, the flow of commodities was determined and recorded by hazard classification placard, the route taken, along with the time of day and day of week it passed through a particular observation point. Non-placarded commodity flows were also recorded during the process.

Scope:

The commodities under study were limited to commercial over-the-road transportation; either non-placarded or placarded for hazardous materials. About a week before the flow study began, a representative from EnviroSafe met with emergency management officials from Alexander County and selected, an observation area for the project. The observation point and data collection schedule for the complete study was as follows:

Day time Data Collection Schedule

Day of Week	Date	Hwy	Observation Times	Locations
Tuesday	06/03/2008	HW 127/Rink Dam Rd.	6:00a.m-1:00p.m	Intersection of HW 127 South and Rink Dam Road
Wednesday	06/04/2008	HW 127/Rink Dam Rd.	6:00a.m-1:00p.m	Intersection of HW 127 South and Rink Dam Road
Thursday	06/05/2008	HW 16 South (County Line)	6:00a.m-1:00p.m	Catawba/Alexander County Line

Friday	06/05/2008	HW 16 South (County Line)	6:00a.m-1:00p.m	Catawba/Alexander County Line
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Night time Data Collection Schedule

Day of Week	Date	Hwy	Observation Times	Locations
Tuesday	06/10/2008	HW 127/Rink Dam Rd.	7:00p.m-2:00a.m	Intersection of HW 127 South and Rink Dam Road
Wednesday	06/11/2008	HW 127/Rink Dam Rd.	7:00p.m-2:00a.m	Intersection of HW 127 South and Rink Dam Road
Thursday	06/12/2008	HW 16 South (County Line)	7:00p.m-2:00a.m	Catawba/Alexander County Line
Friday	06/13/2008	HW 16 South (County Line)	7:00p.m-2:00a.m	Catawba/Alexander County Line

COMMODITY FLOW STUDY RESULTS

During the length of this study all the data was recorded from two observation points throughout 7 hour shifts. The images below illustrate the exact locations of the observation points during this study.



Highway 127 / Rink Dam Road

Highway 16

ALEXANDER COUNTY: PRELIMINARY OVERVIEW

The Highway 127 and Rink Dam Road observation point was subjected to two periods of data collection; a Tuesday and Wednesday each during the daytime and nighttime hours for a total of four periods of observation. Results of the Tuesday day and night data-collection periods are first in the report; directly followed by Wednesday's day and night data-collection results.

The Highway 16 South observation point's data was subject to the same conditions as the Highway 127 and Rink Dam Road observation point. Although it's data was collected on Thursday and Friday. This data can be located after Wednesday's data, starting on page 14 of this report.

The Thursday (300 shipments) daytime period saw more total shipments than any other daytime period, followed closely by Friday's results (273 shipments). Although Thursday's daytime did show more non-placarded shipments than Friday's daytime, Friday's nightshift did have a couple more placarded shipments than Thursday (Thursday-1 placarded, Friday-3 placarded).

The nighttime periods of data collection for Tuesday thru Friday showed a large decrease in numbers as compared to the daytime hours; and were also close in comparison. Tuesday night showed the lowest shipment total at 5. Meanwhile Friday showed the largest shipment total (32). However results were generally close between all the nighttime periods.



HW 127/RINK DAM RD.: TUESDAY DAY/NIGHT SUMMARY

The data below indicates a noticeable volume of commodity shipments during the Tuesday daytime hours at the intersection of Highway 127 and Rink Dam Rd. Of the 213 shipments identified in this portion of the study, a total of 4 were placarded. During both observation periods, Class 3 flammable/combustible liquids were recorded more often than any other.

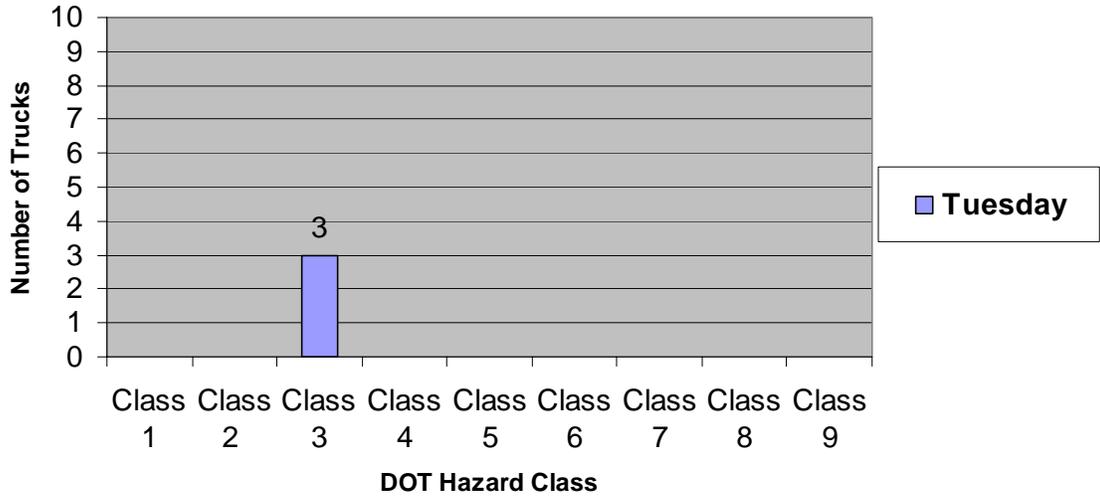


HW 127/RINK DAM RD. - TUESDAY DAY SHIFT RESULTS

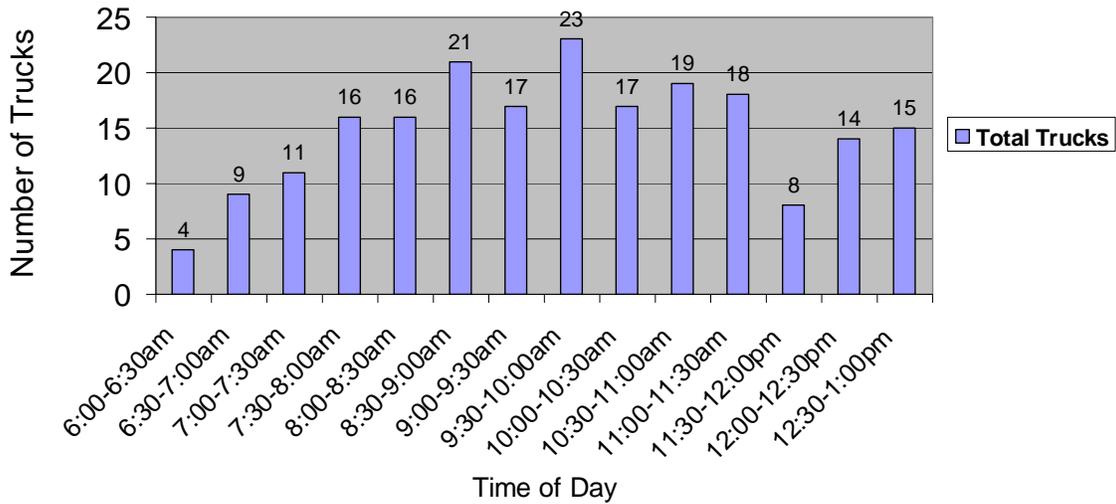
During the Tuesday daytime period, Class 3 flammable/combustible liquids were the only placarded shipments that were observed. Shipment totals saw a peak of 23 shipments during the 9:30-10:00am observation window; with a secondary peak of 21 occurring during the 8:30-9:00am observation window.

Truck Category	Tuesday-Day Shift	Tuesday-Night Shift
Non-Placarded	205	4
Placarded	3	1
Combined Total	208	5

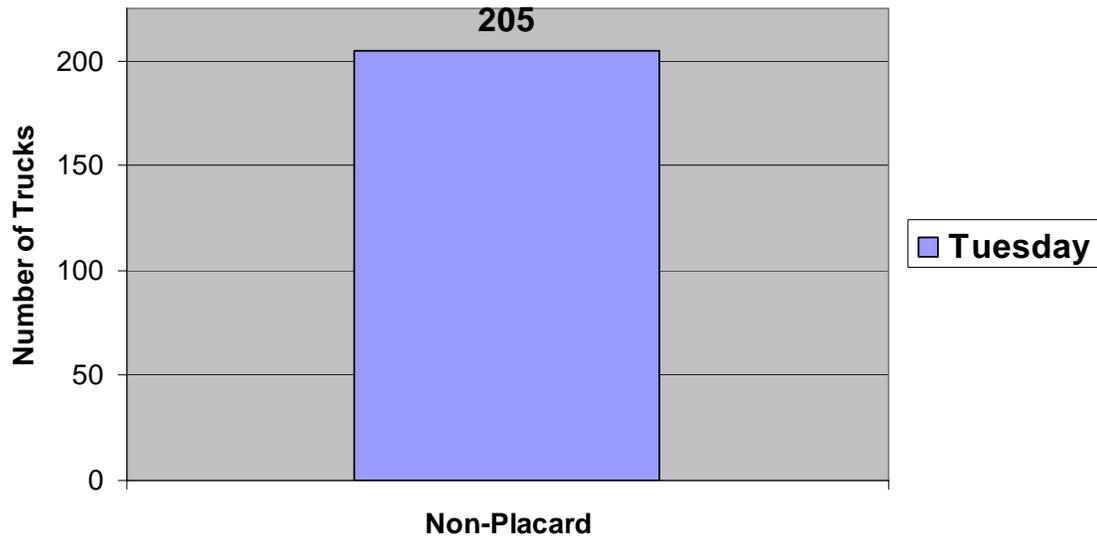
**Alexander County
HW 127/Rink Dam Rd.
Tuesday Day Shift - Total Placarded Shipments**



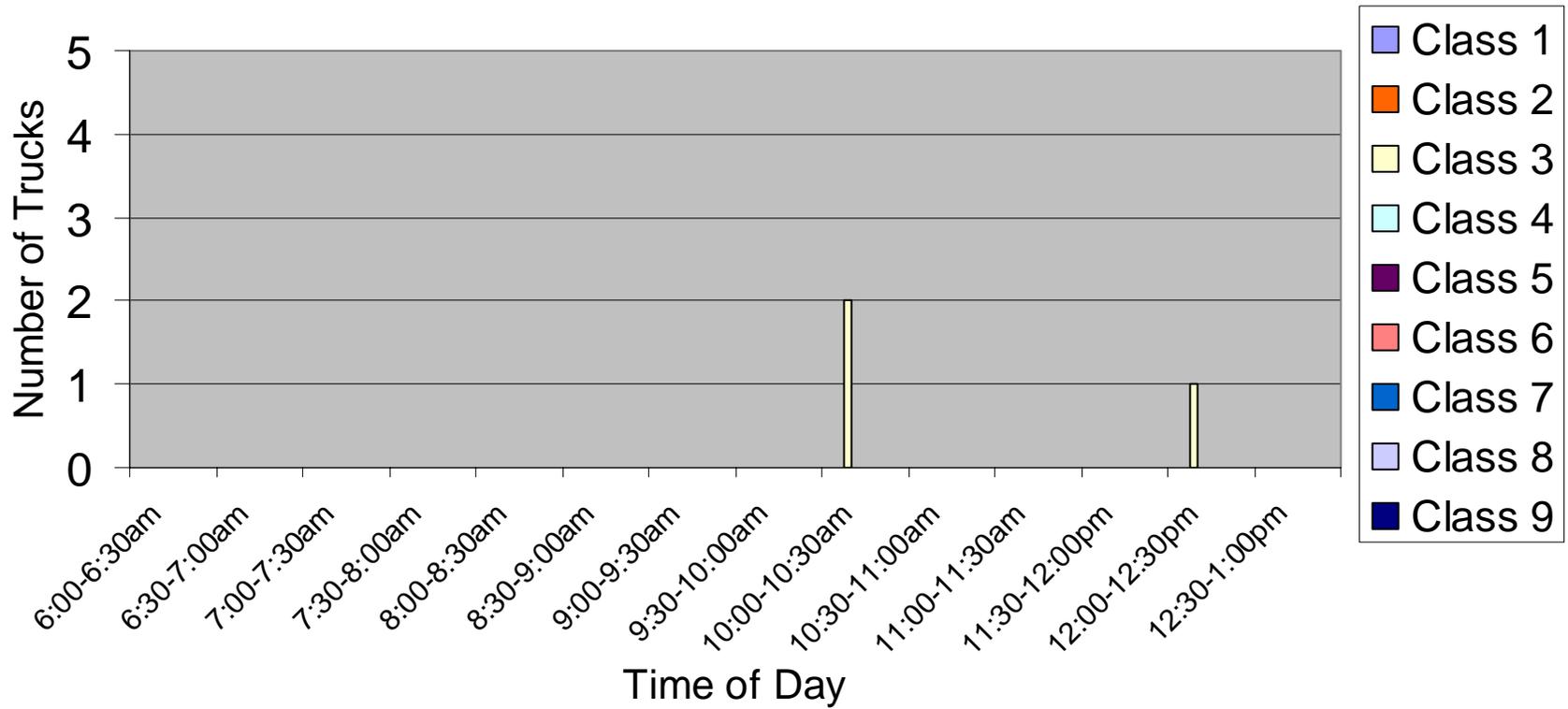
**Alexander County
HW 127/Rink Dam Rd.
Tuesday Day Shift - Total Trucks Per Half Hour**



**Alexander County
HW 127/Rink Dam Rd.
Tuesday Day Shift - Total Non- Placards**



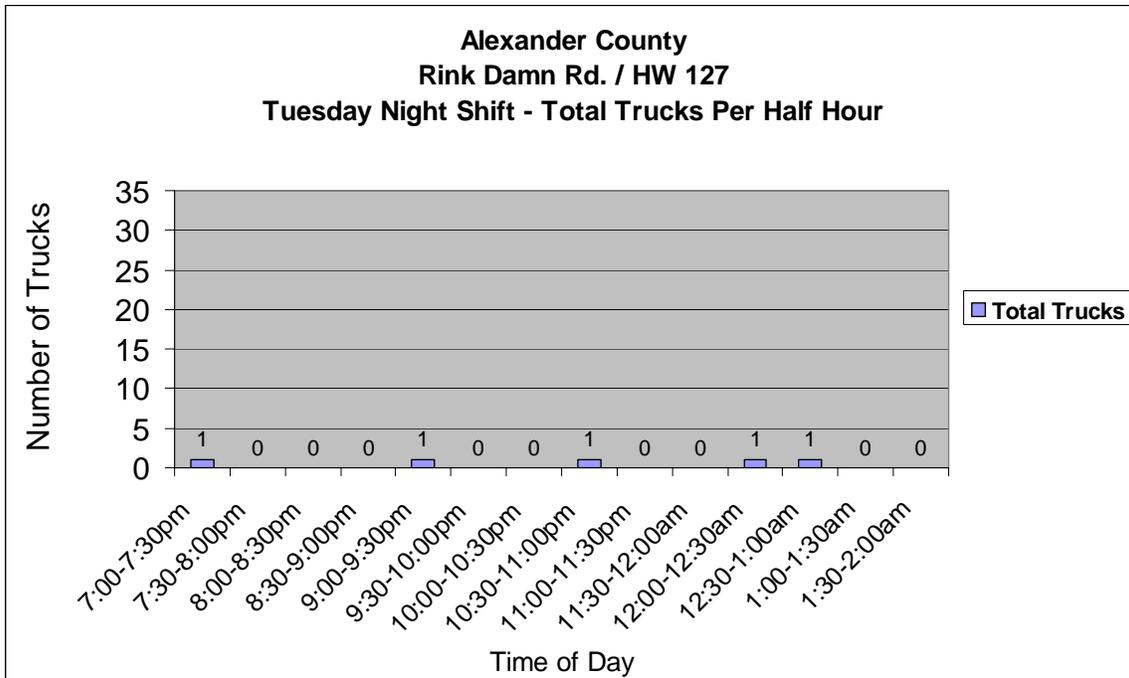
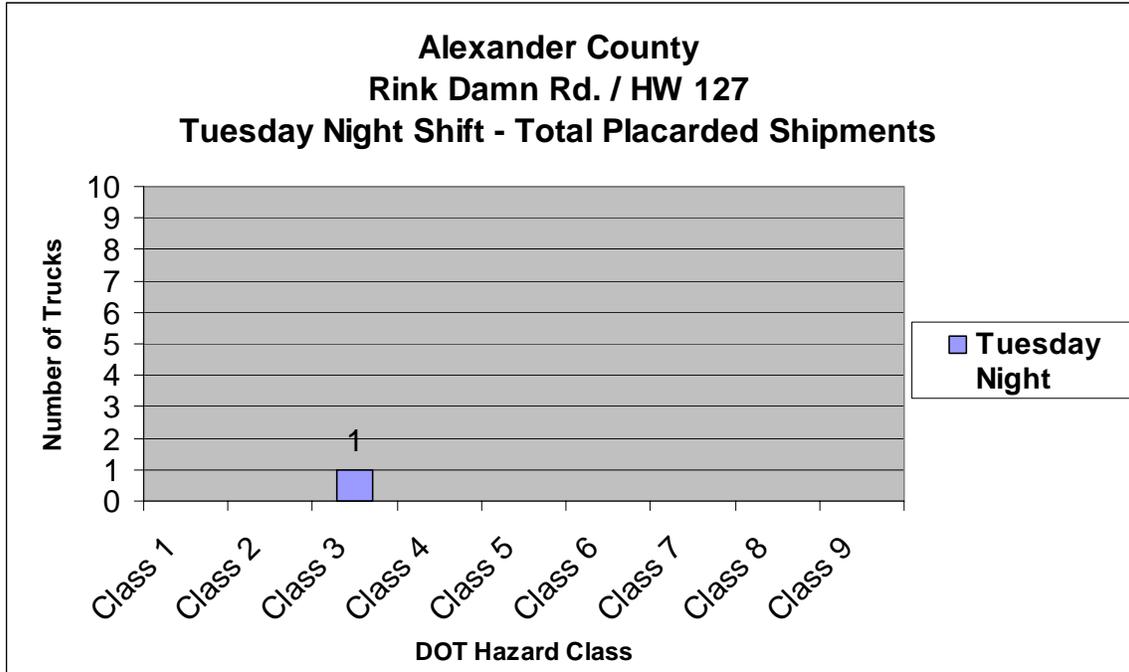
**Alexander County
HW 127/Rink Dam Rd.
Tuesday Day Shift - Total Placards Per Half Hour**



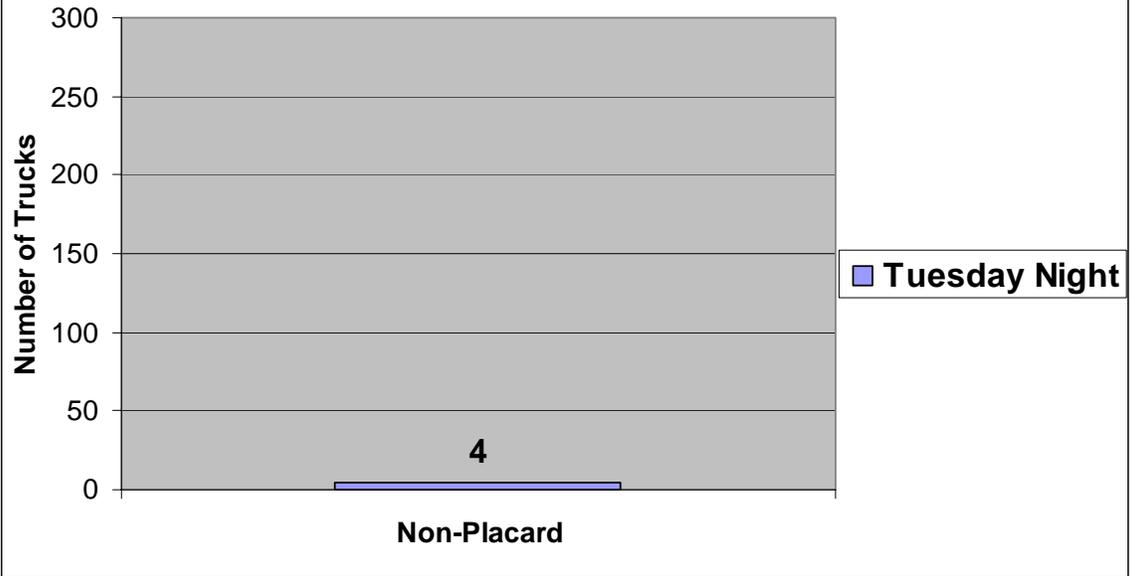
HW 127/RINK DAM RD. - TUESDAY NIGHT SHIFT RESULTS

Highway 127 showed considerably less commercial traffic flow totals over the nighttime hours as compared to daytime hours. A total of 1 placarded shipment was observed; of which was Class 3 flammable liquids.

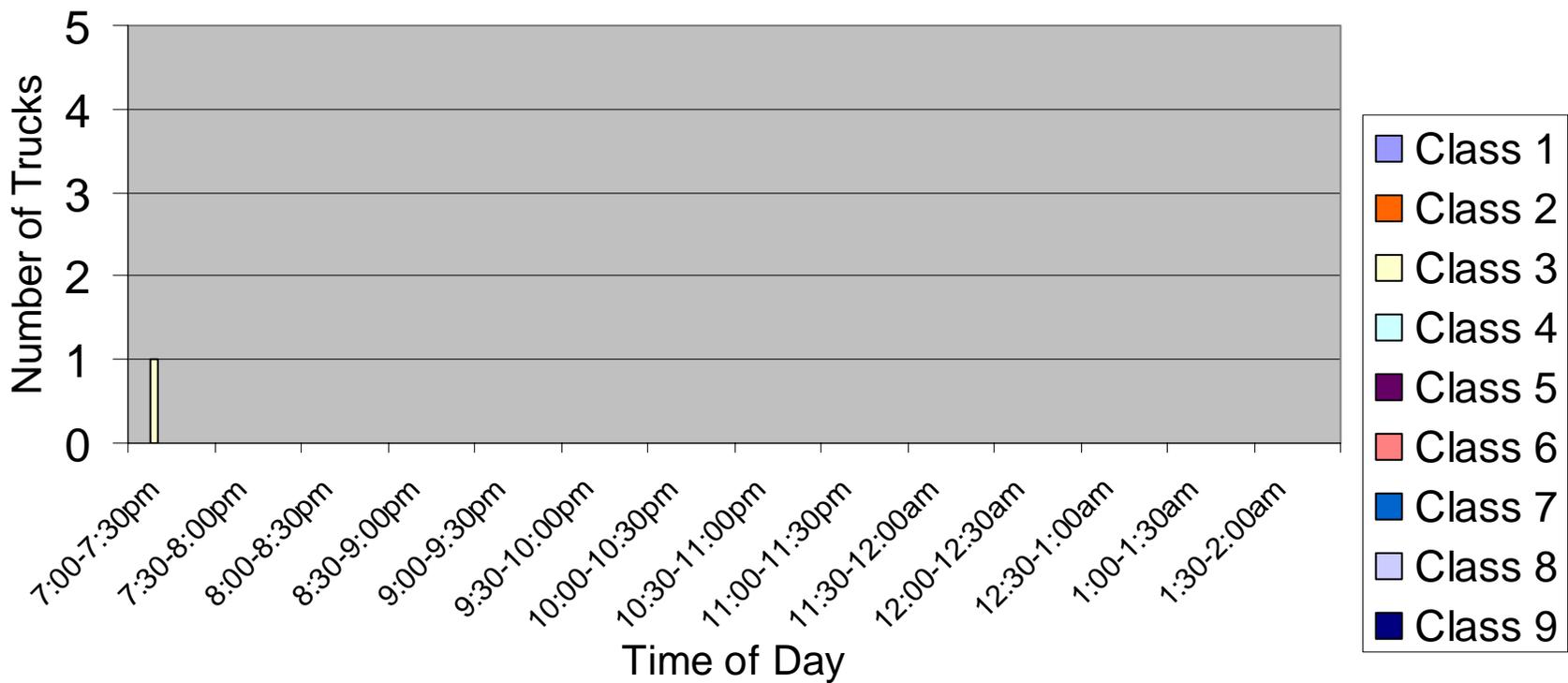
During the Tuesday night shift there were only a total of 5 shipments observed, which were all observed in different observation windows.



**Alexander County
Rink Damn Rd. / HW 127
Tuesday Night Shift - Total Non- Placards**



**Alexander County
HW127/Rink Dam Rd.
Tuesday Night Shift - Total Placards Per Half Hour**



HW 127/RINK DAM RD.: WEDNESDAY DAY/NIGHT SUMMARY

Shipment comparisons were observed at the intersection of Highway 127 and Rink Dam Road during the daytime hours of Wednesday, June 4, 2008 and at night on Wednesday, June 11, 2008.

Total shipment and traffic volumes were dramatically higher during the daytime hours as compared to the nighttime hours.

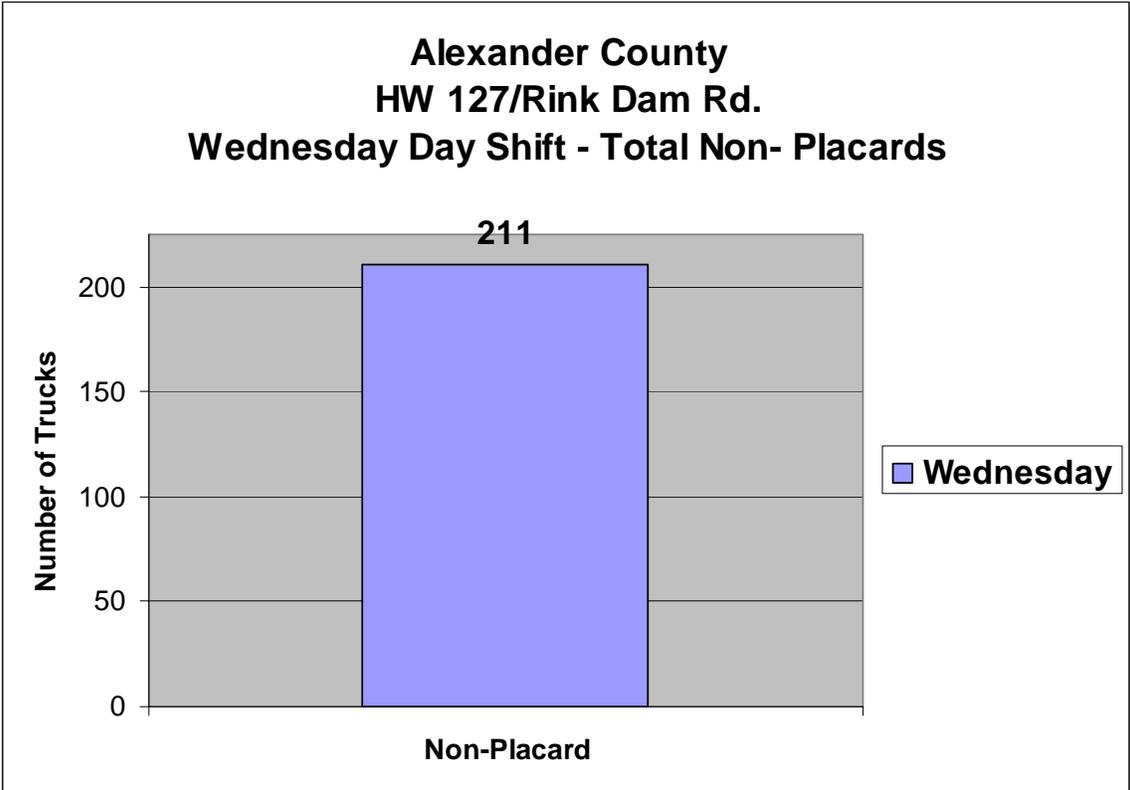
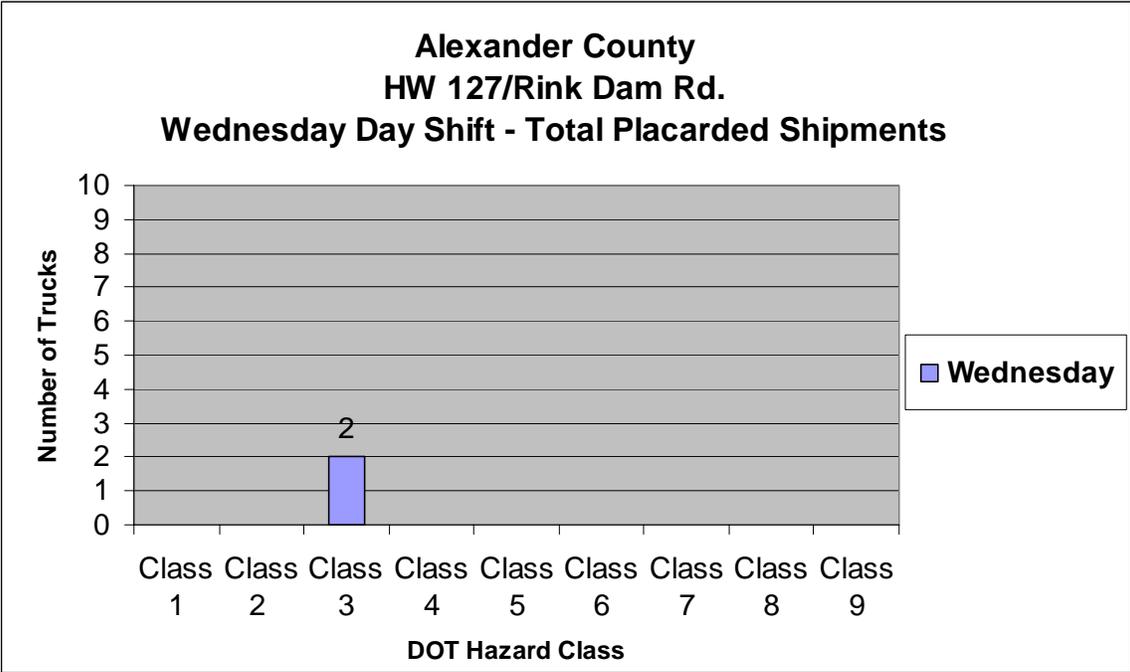
Of the 220 shipments identified in this portion of the study, a total of 2 were placarded. During both observation periods, Class 3 flammable/combustible liquids were the only hazard materials recorded during these two observation periods. Both of the placarded shipments were Class 3 flammable/combustible liquids and on a more specific note they were both 1203(Gasoline).

HW 127/RINK DAM ROAD: WEDNESDAY DAYTIME RESULTS

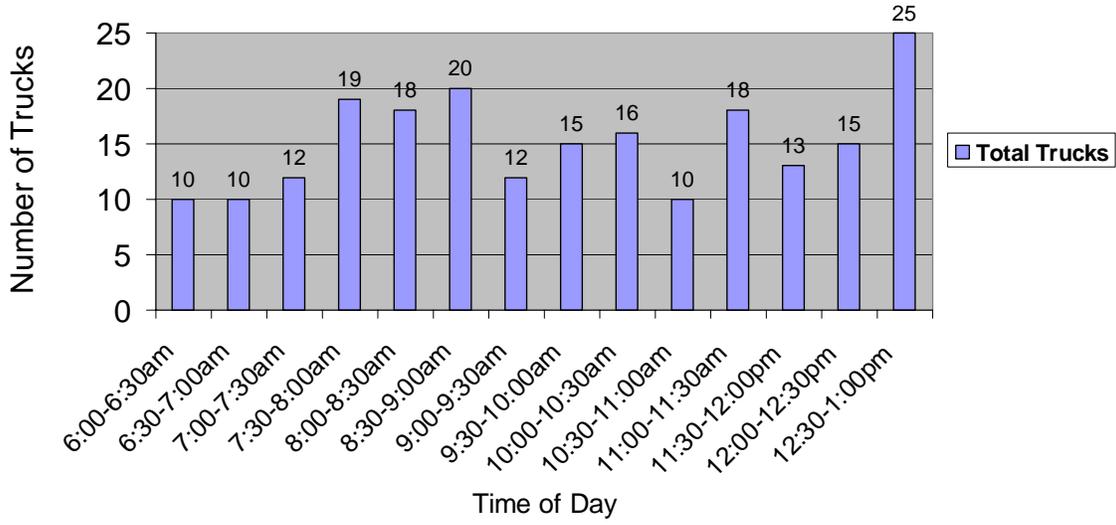
The data below shows a moderate amount of commodity shipment activity on Highway 127 during the daytime hours. Two (2) placarded shipments were recorded; of which both were Class 3 flammable/combustible liquids.

Total shipments saw a peak of activity of 25 shipments between 12:30-1:00pm. The data was relatively unpredictable all day long with an average of 15 shipments every half hour.

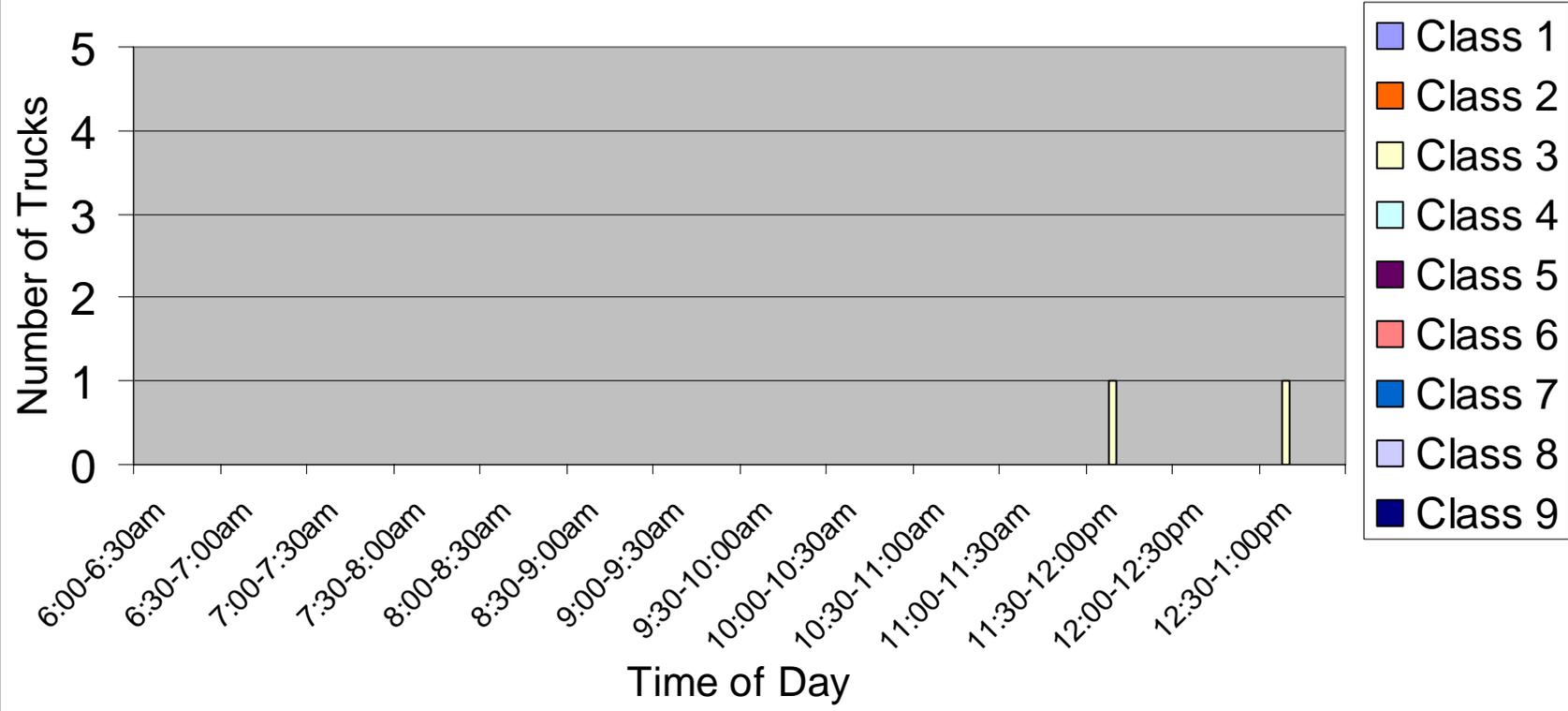
Truck Category	Wednesday-Day Shift	Wednesday-Night Shift
Non-Placarded	211	7
Placarded	2	0
Combined Total	213	7



**Alexander County
HW 127/Rink Dam Rd.
Wednesday Day Shift - Total Trucks Per Half Hour**



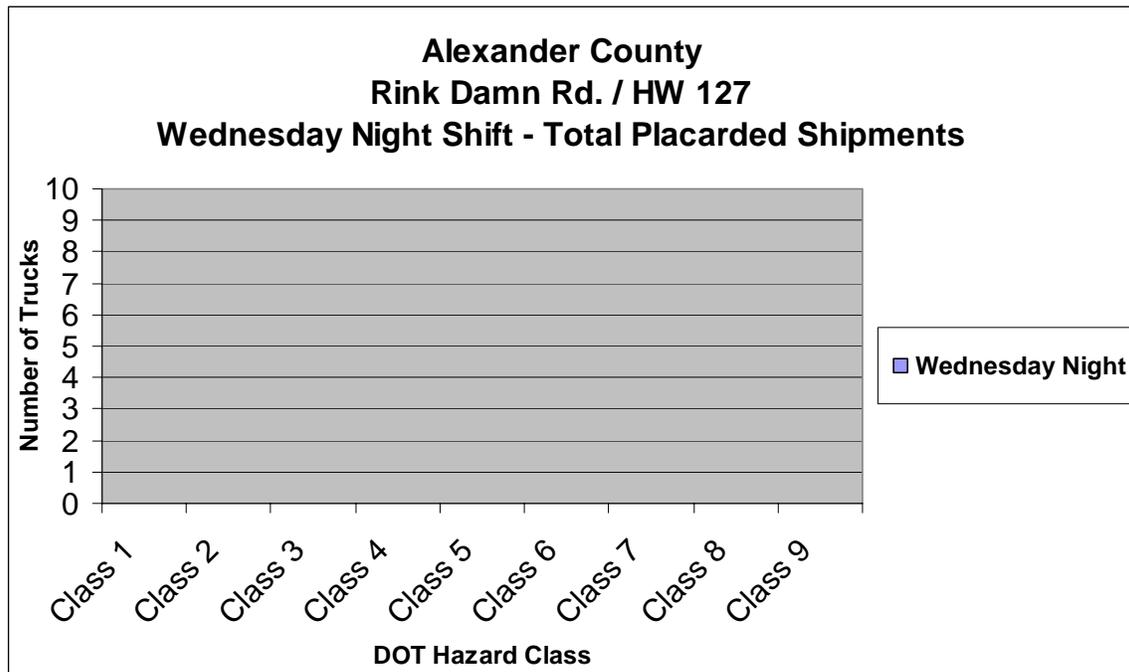
**Alexander County
HW 127/Rink Dam Rd.
Wednesday Day Shift - Total Placards Per Half Hour**

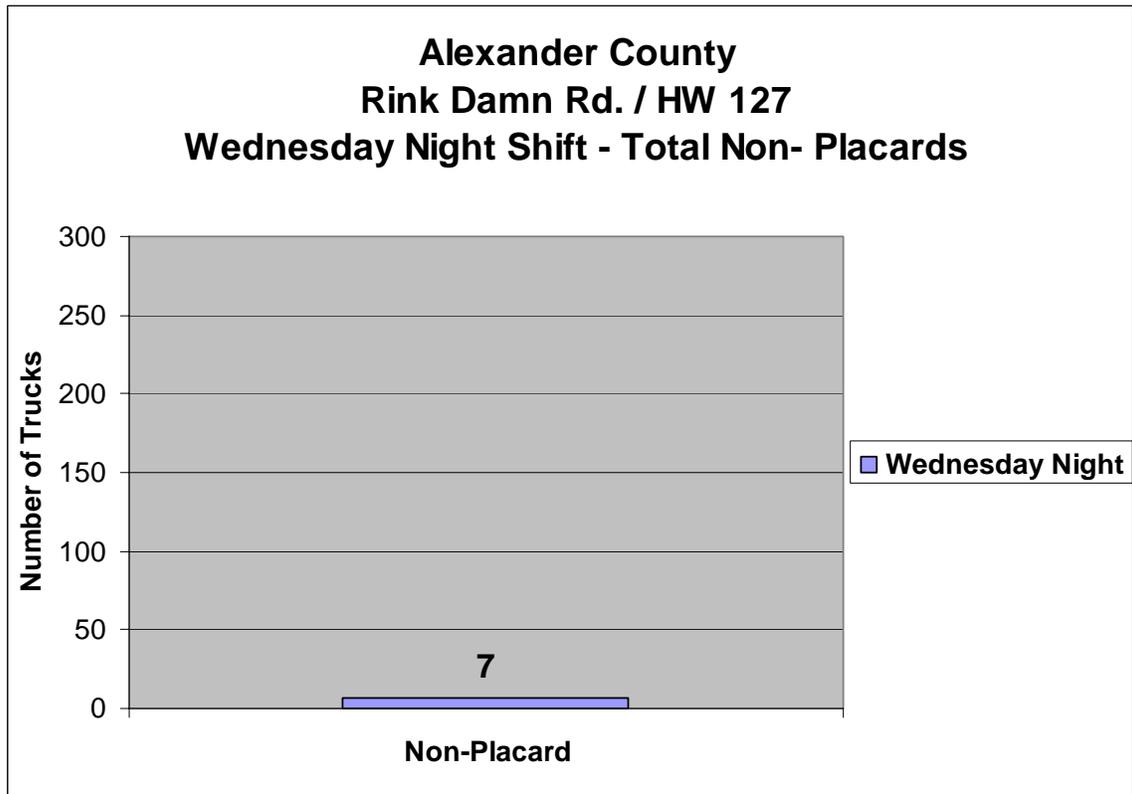
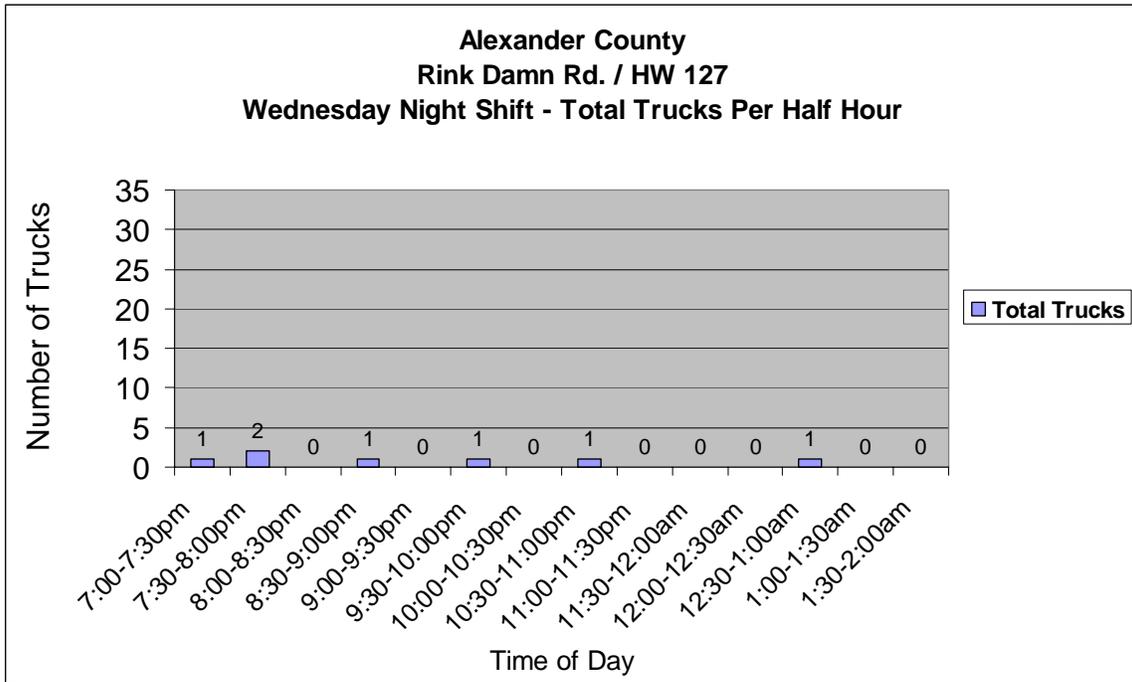


HW127/RINK DAM RD. - WEDNESDAY NIGHT SHIFT RESULTS

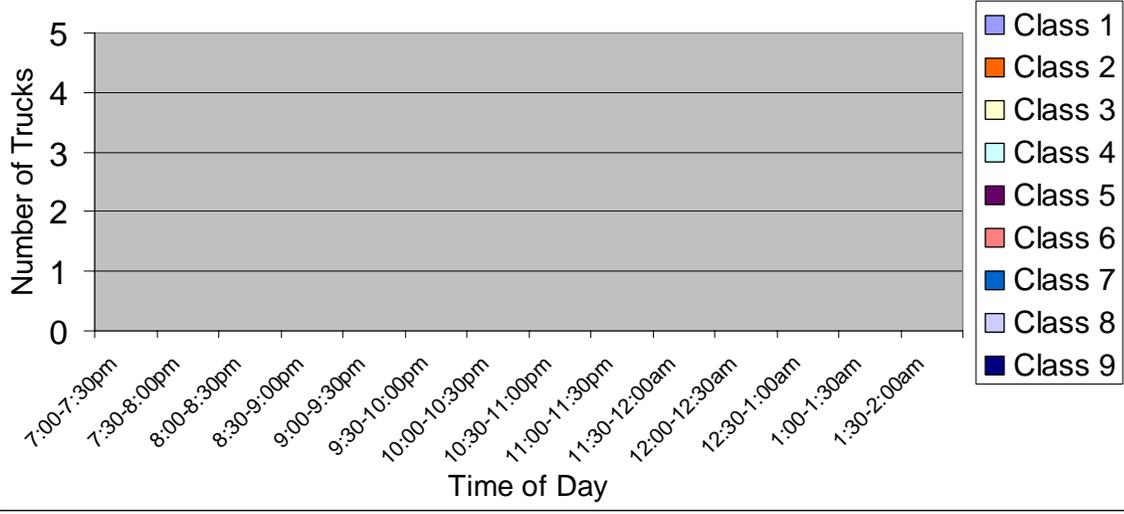
Highway 127 presented considerably less commercial traffic flow totals over the nighttime hours as compared to daytime hours. All of the shipments observed during the night none of them were placarded.

An evening peak of total shipments (2) was recorded between 7:30-8:00pm and did not see this level of activity the remainder of the nighttime observation period.





**Alexander County
Rink Damn Rd. / HW 127
Wednesday Night Shift - Total Placards Per Half Hour**



HW 16 @ (COUNTY LINE): THURSDAY DAY/NIGHT SUMMARY

The data below shows that there are numerous commodity shipments on Highway 16 during the daytime hours. Of the 300 shipments identified in this portion of the study, 15 were placarded

During both observation periods, Class 3 flammable/combustible liquids were recorded considerably more often than any other, there was a total of 10 followed by Class 8 Corrosives with 4 shipments.

In addition, total traffic volumes were high during the daytime and lower during the nighttime hours at this point of observation.

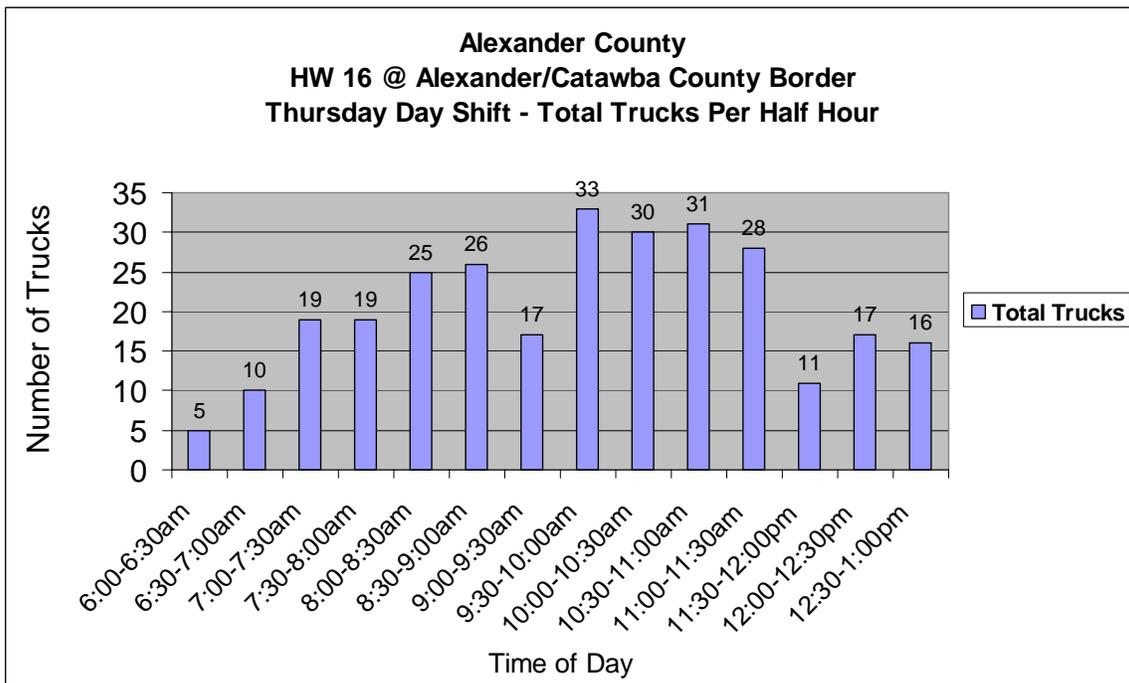
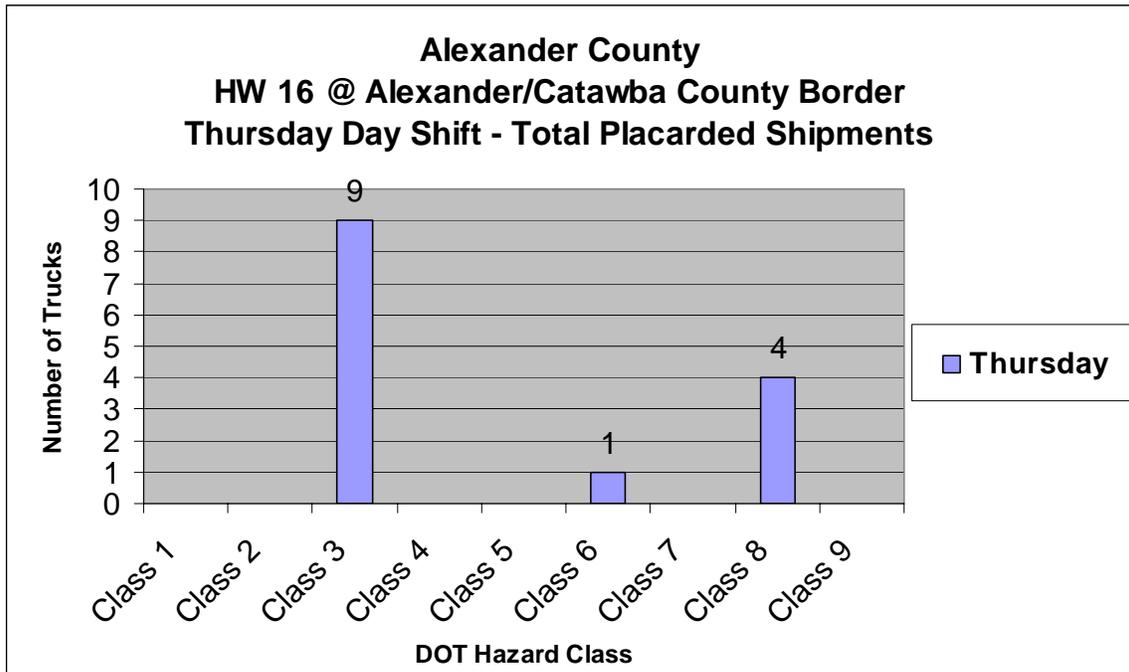


HW16 (COUNTY LINE) - THURSDAY DAY SHIFT RESULTS

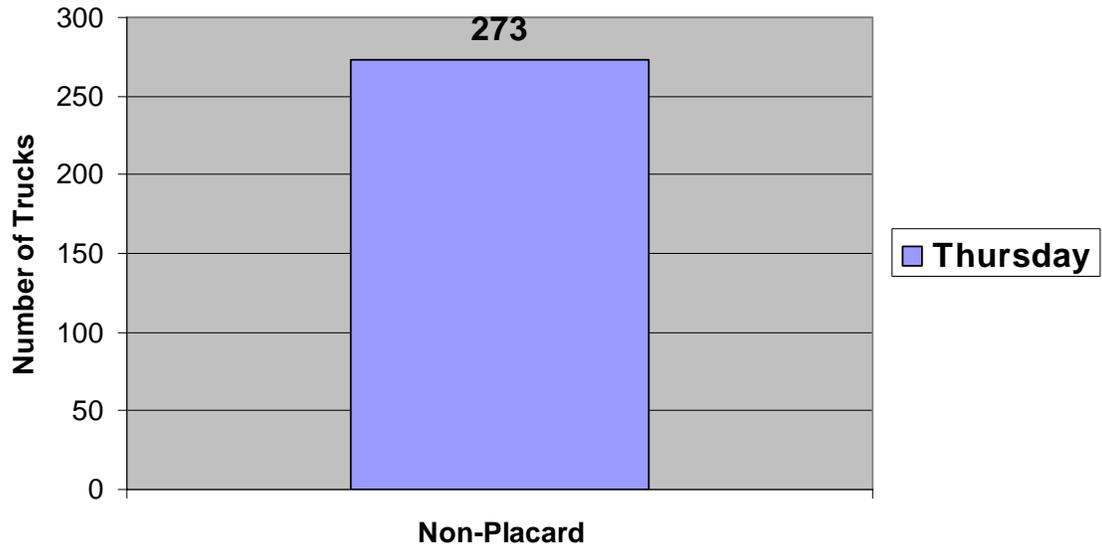
Daytime recordings at the Highway 16 observation point produced a total of 287 shipments; 14 of which were placarded. Nine of these 14 shipments were Class 3 flammable/combustible liquids.

The 9:30-10:00am observation window showed a peak of commercial activity; producing 33 total shipments in 30 minutes. A secondary peak was observed during the 10:30-11am window; producing 31 total shipments.

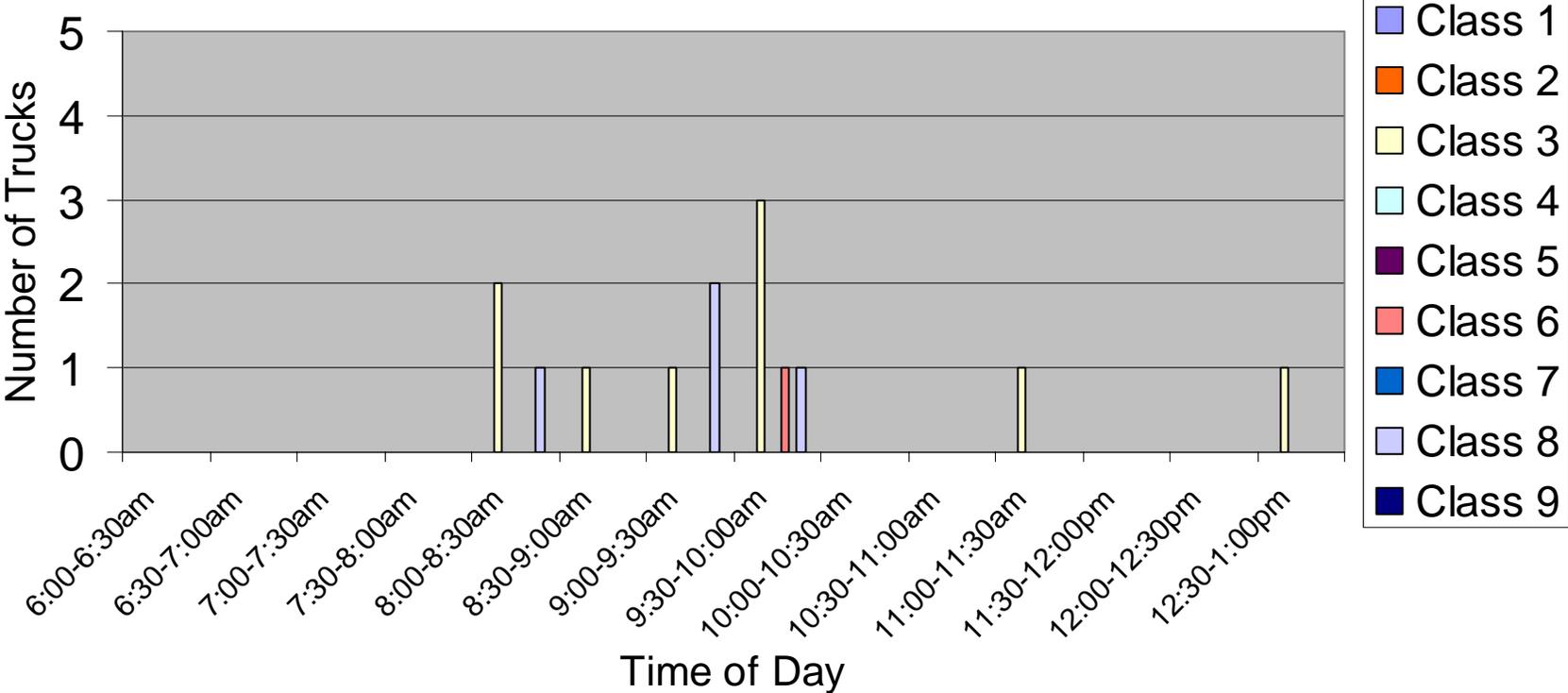
Truck Category	Thursday-Day Shift	Thursday-Night Shift
Non-Placarded	273	12
Placarded	14	1
Combined Total	287	13



**Alexander County
HW 16 @ Alexander/Catawba County Border
Thursday Day Shift - Total Non- Placards**



**Alexander County
 HW 16 @ Alexander/Catawba County Border
 Thursday Day Shift - Total Placards Per Half Hour**

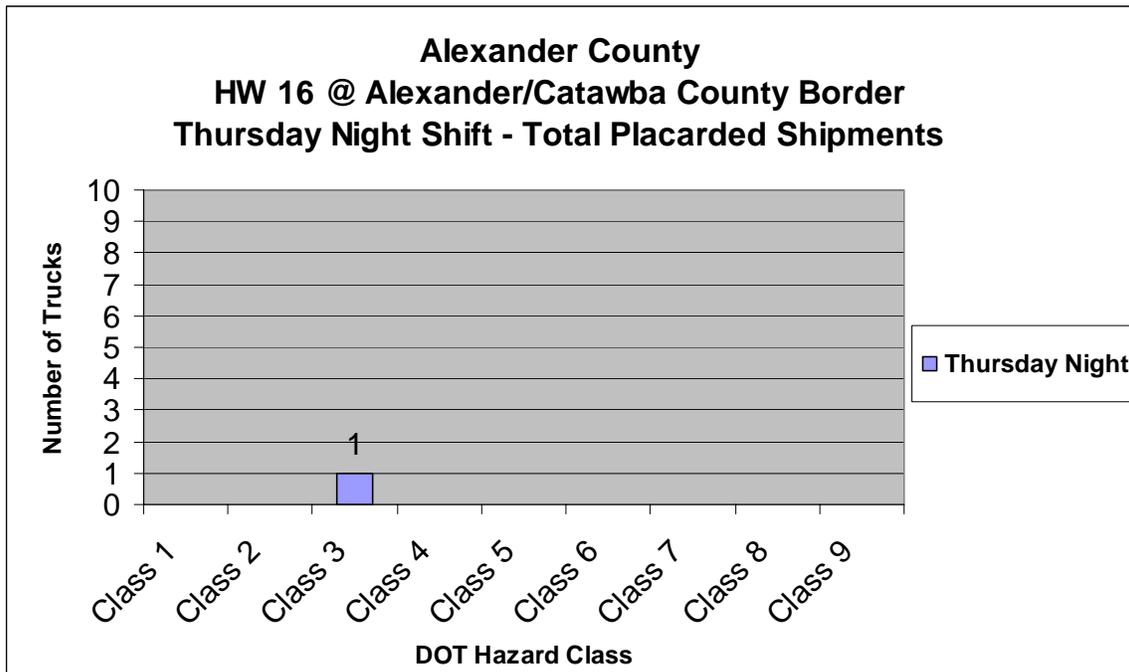


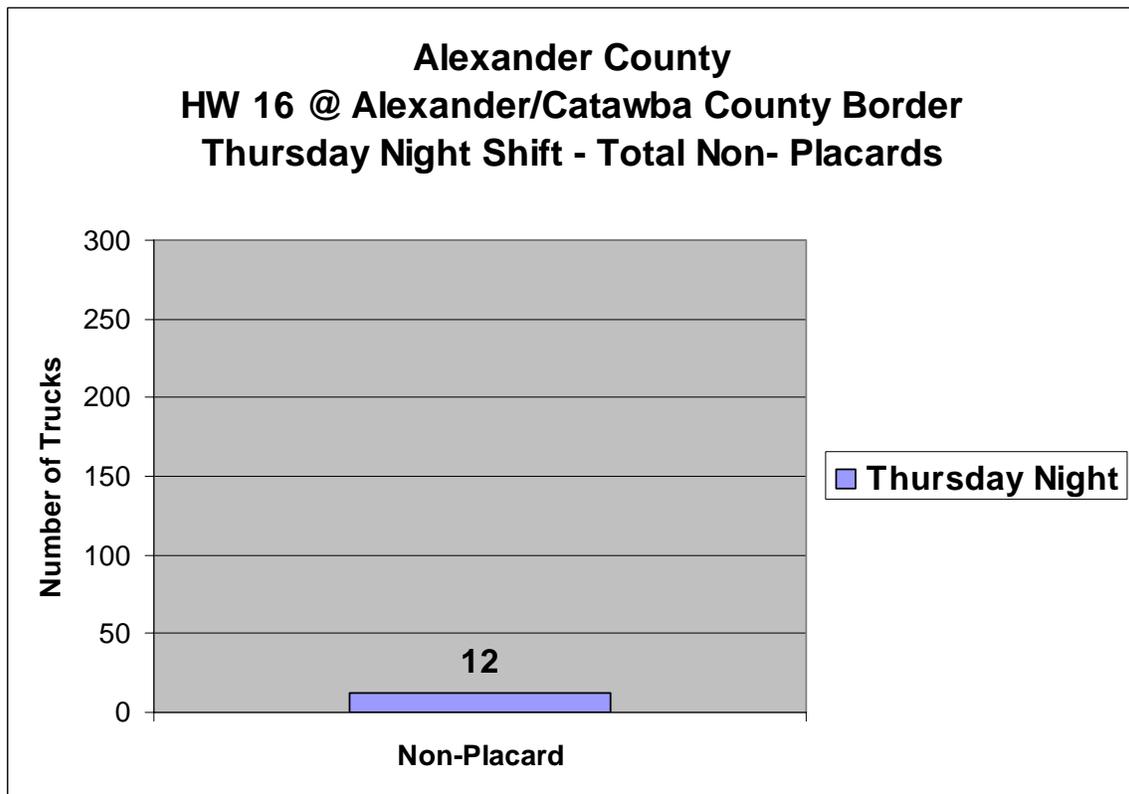
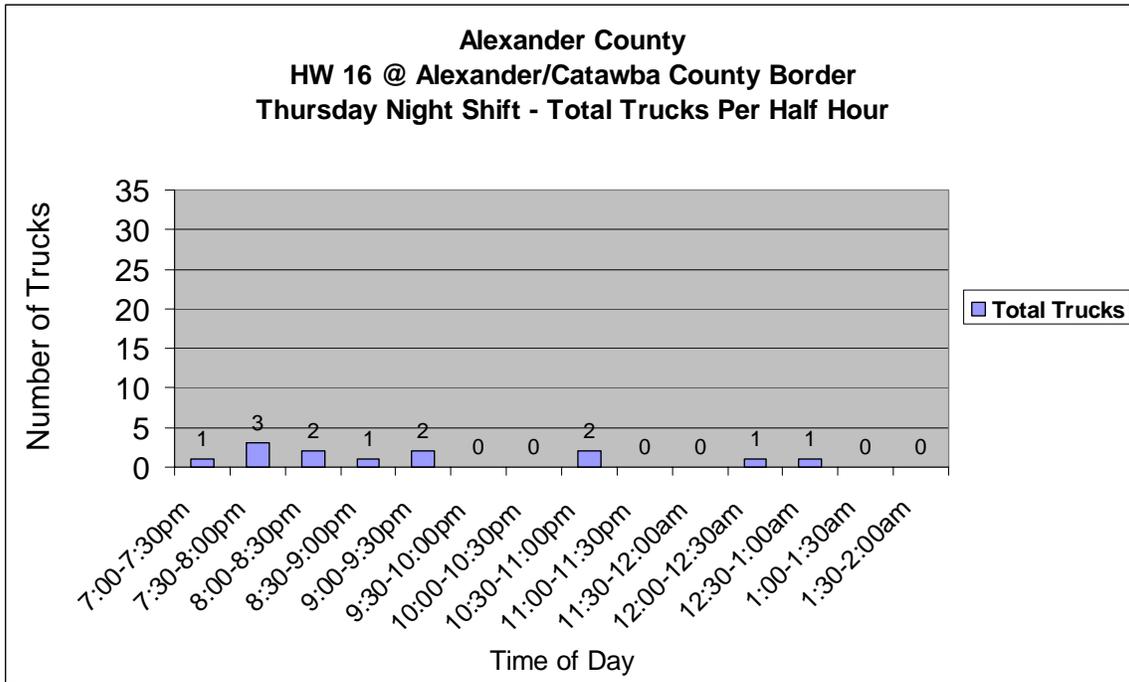
HW 16 @ COUNTY BORDER - THURSDAY NIGHT SHIFT RESULTS

Highway 16 presented less commercial traffic flow totals over the nighttime hours as compared to daytime hours. Thirteen (13) total shipments were recorded during the entire observation period.

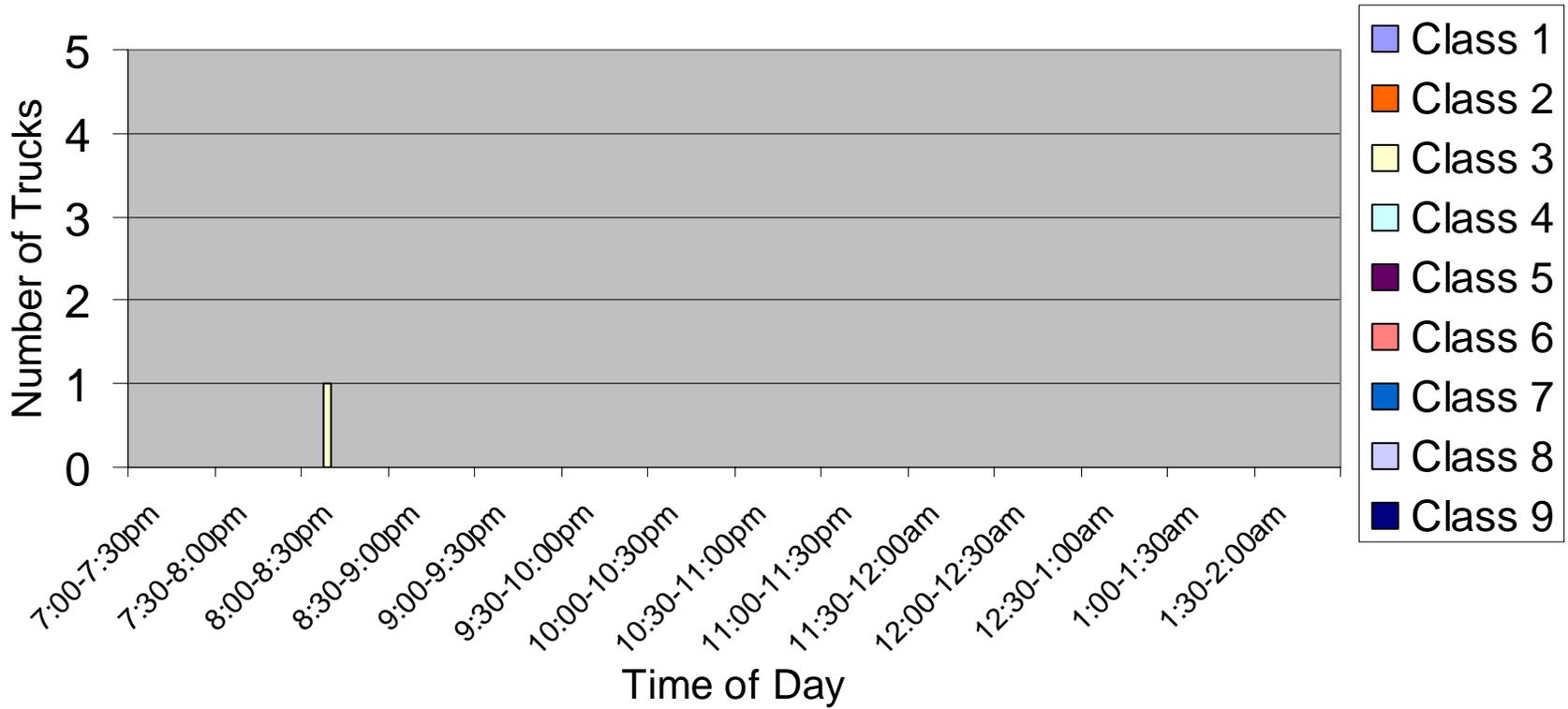
One placarded shipment were recorded during the period, this shipment was a Class 3 flammable/combustible liquid, (1203) Gasoline.

An early evening peak of total shipments (3) was observed during the first hour of observation (7:30-8:00pm) and continued to taper down to around one or two shipments every hour for the rest of the observation period.





**Alexander County
HW 16 @ Alexander/Catawba County Border
Thursday Night Shift - Total Placards Per Half Hour**



HW 16 @ COUNTY BORDER: FRIDAY DAY/NIGHT SUMMARY

The data below shows that there is moderate flow of commodity shipments on Highway 16 at the Alexander and Catawba County Border during the daytime hours. Of the total 273 shipments identified in this portion of the study, 8 were placarded. Of these 8 placarded shipments, the majority (5) were Class 3 flammable/combustible liquids.

At this observation point, total shipment numbers were significantly higher during the daytime as compared to nighttime hours; 241 during the daytime and 32 in the nighttime.

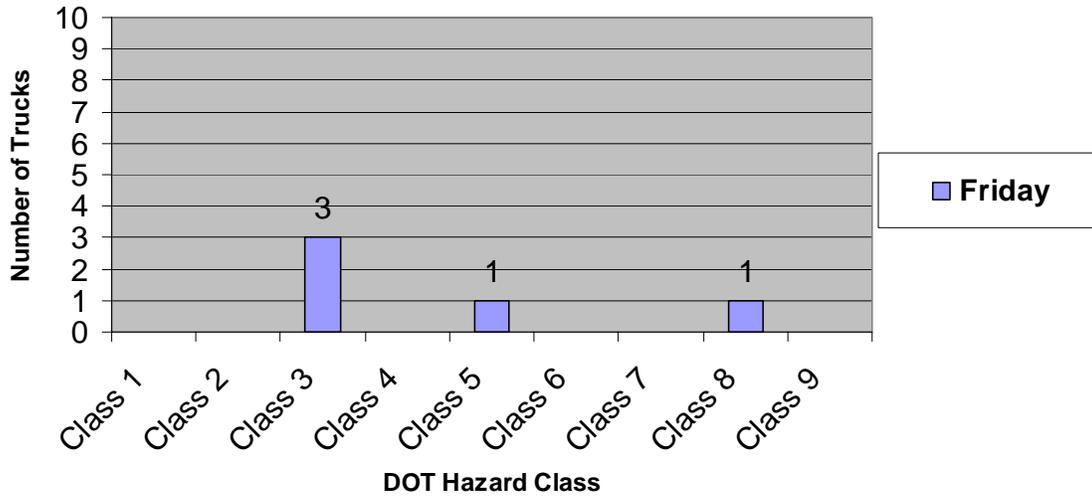
Total traffic volume in this location was much higher during the daytime hours as well.

HW 16 @ COUNTY BORDER - DAY SHIFT RESULTS

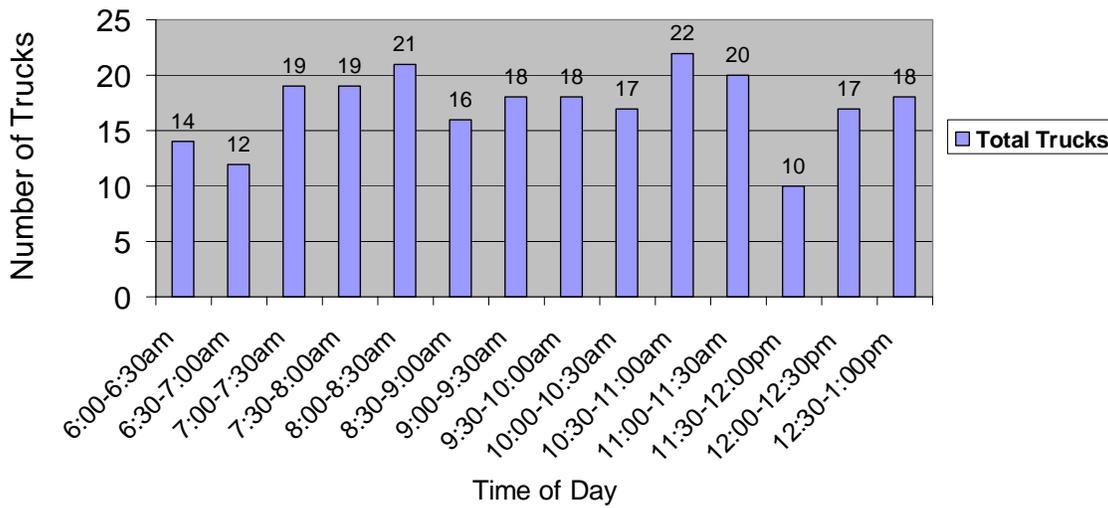
Total shipment numbers peaked at the 10:30-11:00am observation window; producing 22 shipments in a 30-minute period. During this observation period, Class 3 flammable/combustible liquids were recorded slightly more often than any other, a total of three were recorded (3).

Truck Category	Friday-Day Shift	Friday-Night Shift
Non-Placarded	236	29
Placarded	5	3
Combined Total	241	32

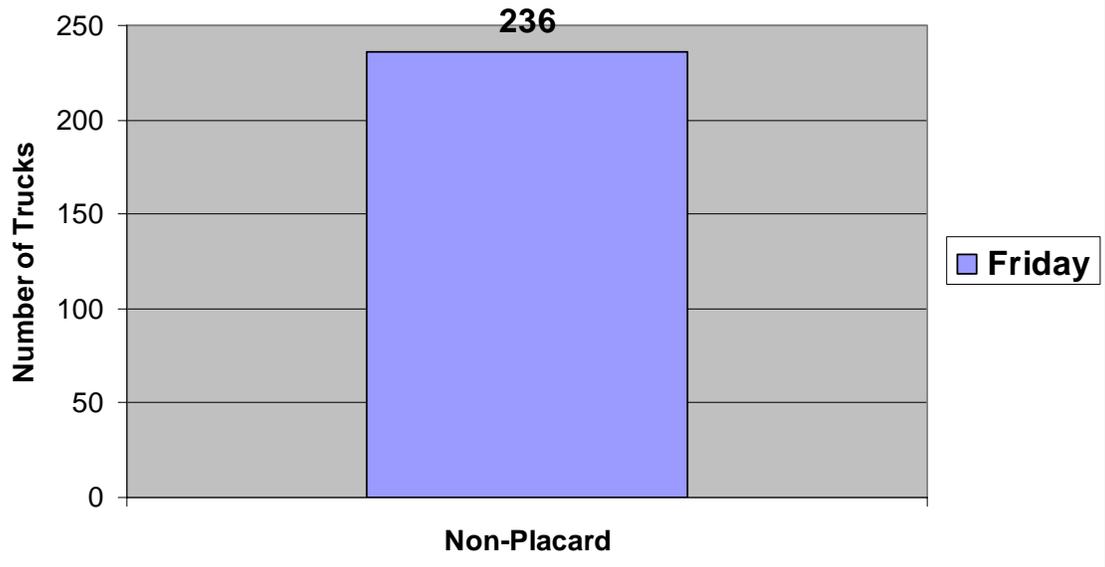
**Alexander County
HW 16 @ County Border
Friday Day Shift - Total Placarded Shipments**



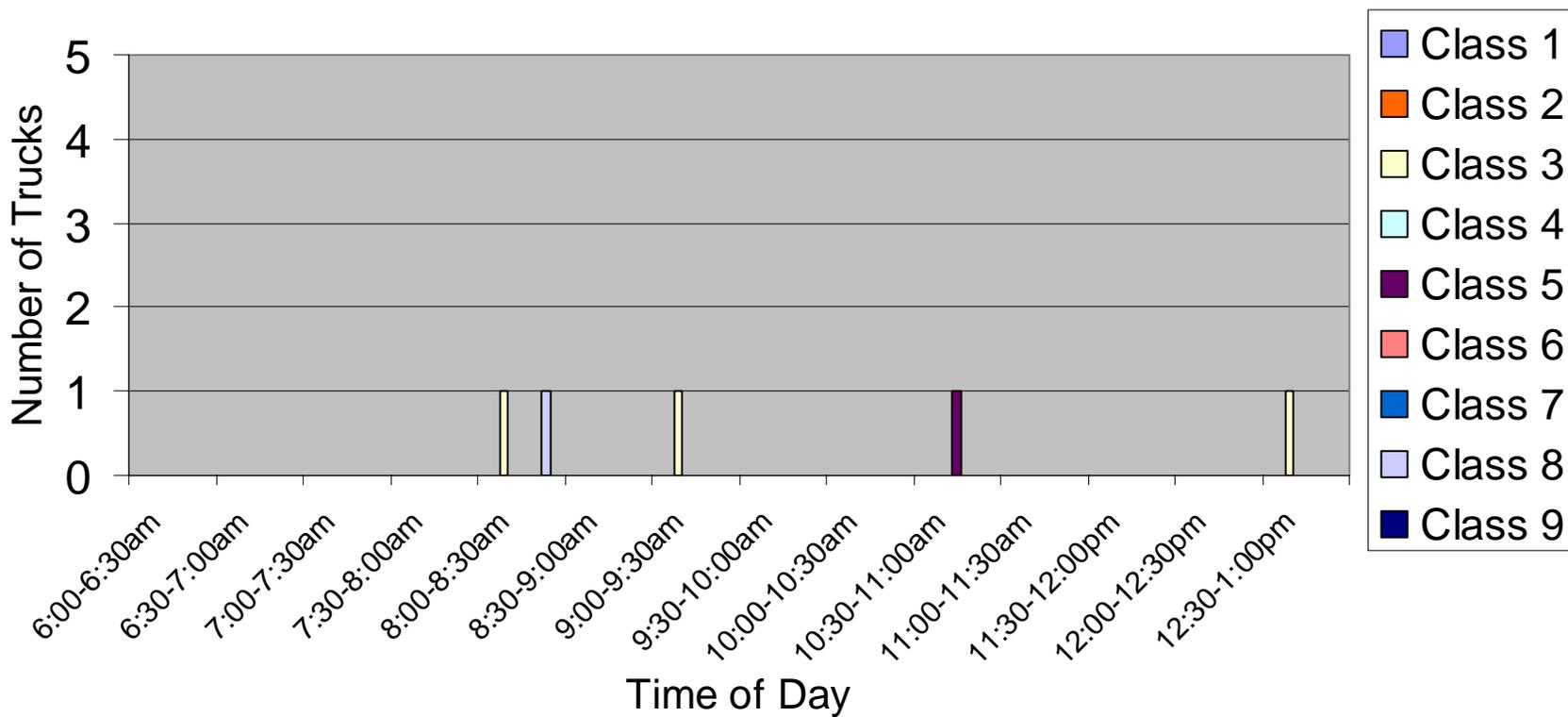
**Alexander County
HW 16 @ County Border
Friday Day Shift - Total Trucks Per Half Hour**



**Alexander County
HW 16 @ County Border
Friday Day Shift - Total Non- Placards**



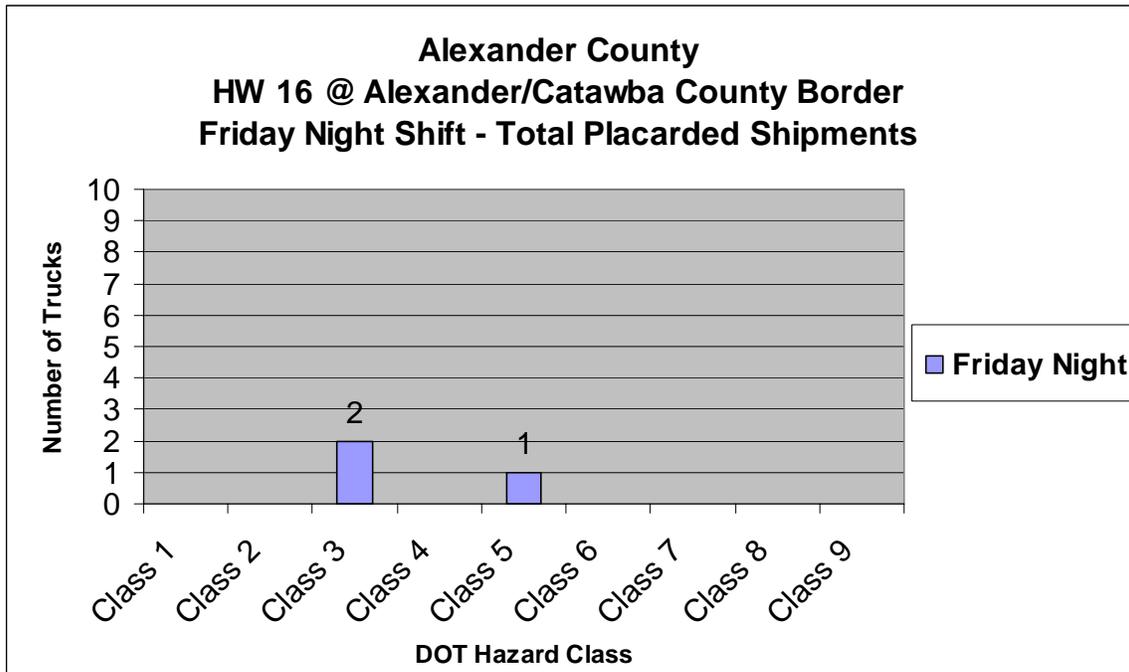
Alexander County HW 16 @ County Border Friday Day Shift - Total Placards Per Half Hour

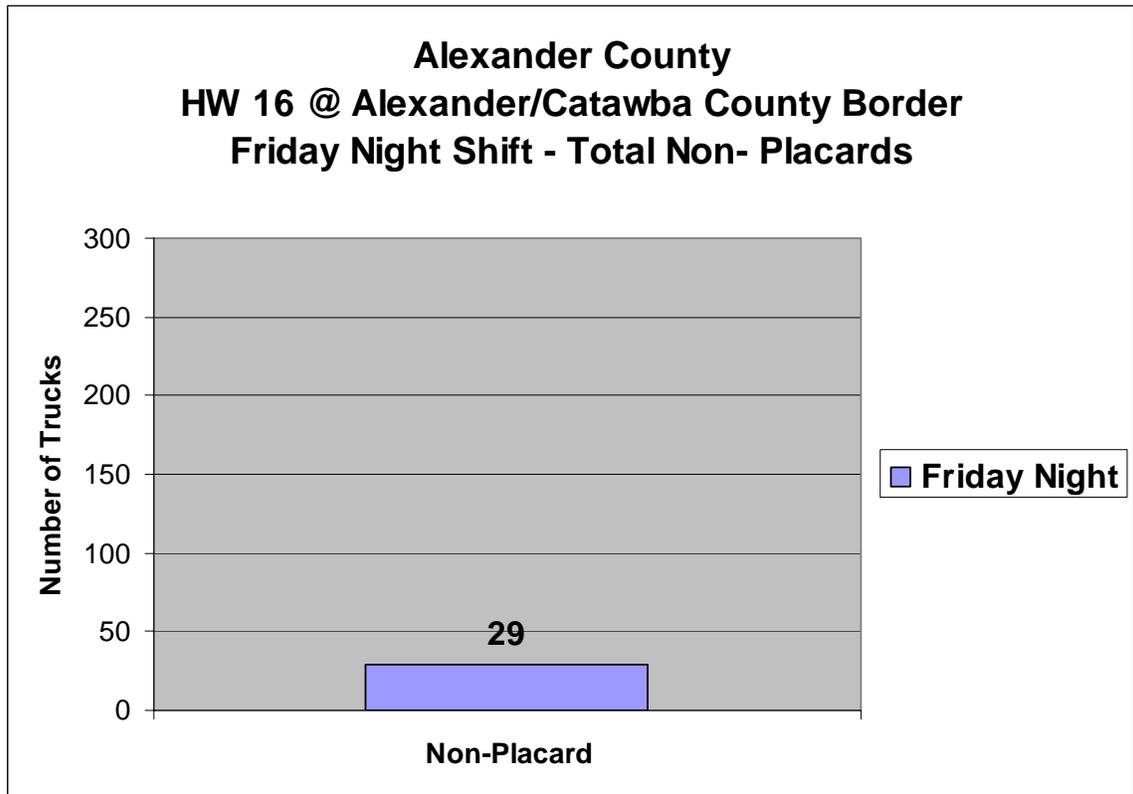
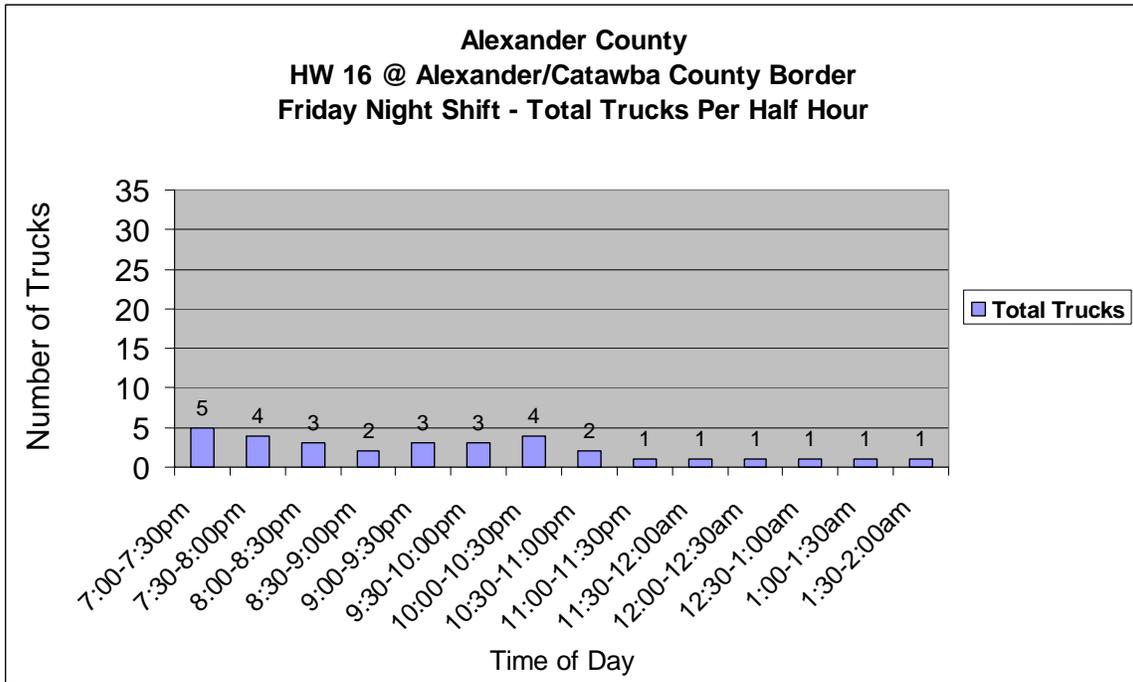


HW 16 @ COUNTY BORDER - NIGHT SHIFT RESULTS

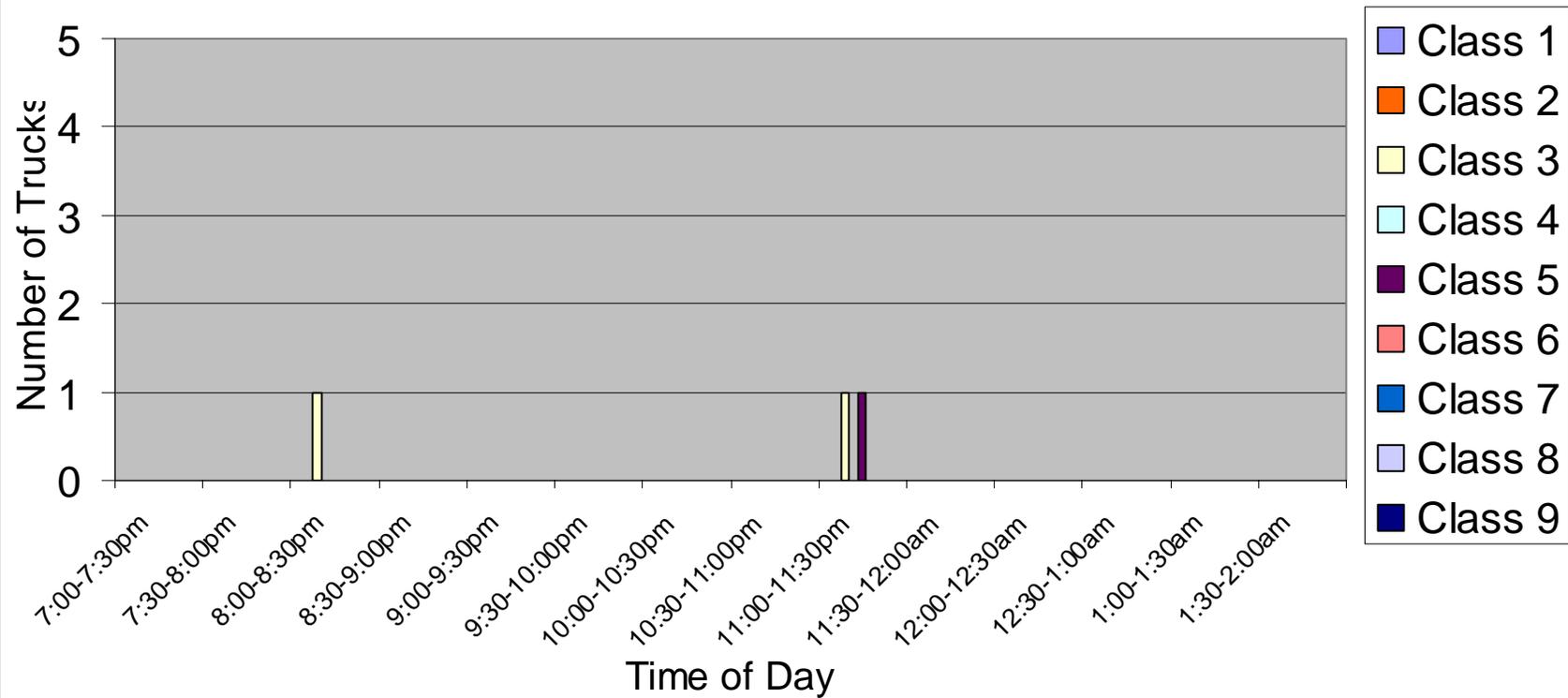
During the nighttime observation period, Class 3 flammable/combustible liquids were recorded more often than any other (2).

7:00-7:30pm produced a peak of shipment, 5 shipments being recorded in 30 minutes. Although considerably less in total shipment volume as compared to the daytime; this period still produced 32 shipments in this particular nighttime period.





Alexander County HW 16 @ Alexander/Catawba County Border Friday Night Shift - Total Placards Per Half Hour



Conclusion:

This commodity flow study took almost two weeks of observation; 4 dayshift observation periods and 4 nightshift periods. One thousand and six (1,006) total shipments were documented during the study. Of the total documented, twenty nine (29) were identified as placarded shipments.

It should be noted however, that non-placarded shipments do not necessarily indicate that hazardous materials are not on board. At least a portion of the shipments across America's roadways on a daily basis do not meet the Department of Transportation's placarding requirements.



As an obvious result, the study shows that a moderate number of shipments, placarded or non-placarded, pass through the Alexander County areas of Highway 127 and Highway 16 during daytime hours and the nighttime hours. Obviously there are less concentrated routes of travel on Highway 127 and Highway 16 compared to the Interstate.

The results of this study should further enable the local emergency response officials of Alexander County to make more informed decisions on the management of hazardous materials within and passing through their respective municipalities and communities.

Appendix Six – Approvals, Certifications and Resolutions

ALEXANDER COUNTY

and

TOWN OF TAYLORSVILLE

APPROVAL SIGNATURES OF THE HAZARD MITIGATION PLAN

Chairman of the Board of County Commissioners

Mayor - Town of Taylorsville

**ALEXANDER COUNTY
HAZARD MITIGATION CERTIFICATIONS**

I, Russell Greene, Emergency Management Director for the County of Alexander, State of North Carolina, do hereby certify that public involvement and input regarding the Hazard Mitigation Plan was carried out in accordance with the plan and in accordance with local policy and ordinance.

I further certify that plan briefings of Board and Council members were published and the was public invited, per the "Open Meetings" laws of North Carolina. I further certify that agendas of regular meetings of Boards and Councils in Alexander County and the respective municipalities were published prior to consideration for approval of the Hazard Mitigation Plan. I further certify that members of the public served on the Hazard Mitigation Task Force / LEPC for Alexander County and that such citizens had ample opportunity for input in plan development. I further certify that copies of Board and or Council meeting minutes, kept in accordance with North Carolina law, regarding approval of the Hazard Mitigation Plan, are on file and available for members of the public, state and federal agencies. Inspection may be made upon reasonable request to the respective jurisdictional authority. I further certify that a draft of the Hazard Mitigation Plan was placed upon website <http://www.eplanonline.com/alexander> for staff and public inspection and comment from June 16, 2003 until July 16, 2003.

This certification is in accordance with provisions of the Disaster Mitigation Act 2000 (44 CFR 201.6) and NCGS 62A.

This _____ day of _____, 2009.

North Carolina, Alexander County

I, _____, a Notary Public for Alexander County, NC, do hereby certify that Russell Greene appeared before me this day and acknowledged signing the foregoing instrument.

Witness my hand and seal this _____ day of _____, 2009

Notary Public

My commission expires _____

ALEXANDER COUNTY BOARD OF COMMISSIONERS



**County of Alexander
State of North Carolina**

RESOLUTION

WHEREAS, the Disaster Mitigation Act of 2000, the Code of Federal Regulations and North Carolina General Statutes require the development of a Hazard Mitigation Plan and;

WHEREAS, a Hazard Mitigation Plan has been developed by Alexander County and the Town of Taylorsville and reviewed by members of this Board, staff and the public and;

WHEREAS, this Hazard Mitigation Plan has been updated for the 2009 plan update cycle in accordance with updated guidance from State and Federal agencies;

WHEREAS, the Alexander County Local Emergency Planning Committee recommends the approval of the Hazard Mitigation Plan and;

WHEREAS, the State of North Carolina, Division of Emergency Management has conducted a review of the Hazard Mitigation Plan;

NOW THEREFORE, we the Board of Commissioners hereby approve the Alexander County Hazard Mitigation Plan as submitted, this _____ day of _____, 2009

Chairman - Alexander County Board of Commissioners

Clerk to the Board

Town of Taylorsville Adoption Resolution

**Town of Taylorsville
County of Alexander
State of North Carolina**

RESOLUTION

WHEREAS, the Disaster Mitigation Act of 2000, the Code of Federal Regulations and North Carolina General Statutes require the development of a Hazard Mitigation Plan and;

WHEREAS, a Hazard Mitigation Plan has been developed by Alexander County and the Town of Taylorsville and reviewed by members of this Council, staff and the public and;

WHEREAS, this Hazard Mitigation Plan has been updated for the 2009 plan update cycle in accordance with updated guidance from State and Federal agencies;

WHEREAS, the Alexander County Local Emergency Planning Committee recommends the approval of the Hazard Mitigation Plan and;

WHEREAS, the State of North Carolina, Division of Emergency Management has conducted a review of the Hazard Mitigation Plan;

NOW THEREFORE, we the Town Council hereby approve the Alexander County Hazard Mitigation Plan as submitted, this _____ day of _____, 2009

Mayor - Town of Taylorsville

Town Clerk

**Appendix Seven – Planning Meeting Agendas,
Announcements and Sign-In Sheets as Available**

Alexander County Local Emergency Planning Committee Meeting

August 3, 2006

MEMBERS PRESENT:

Greg Atchley	Bradley Earp	Karen Hoyle	Billie Walker
Hayden Bentley	Patti Foster	David Icenhour	Leeanne Whisnant
Roy Bentley *	Russell Greene	Steve Icenhour	Keith Whitener
Bob Burns *	William Hammer	Yerby Ray *	Jason Williams
Mike Carrigan *	Micah Henry	Allen Reed *	
Jerry Cates *	Mark Howell *	Jamie Starnes	

The Alexander County LEPC met on Thursday, August 3, 2006 at 11:30 AM in Room 103 of the CVCC / Alexander Center. A total of 15 members and 7 *visitors were present. Jerry Cates attended for Dave Bristol and Mike Carrigan attended for Tony Setzer.

CALL TO ORDER

Russell Greene called the meeting to order at 11:40 AM.

APPROVAL OF MINUTES

David Icenhour moved to approve the minutes from the May 4, 2006 meeting. Leeanne Whisnant seconded the motion which passed unanimously.

OLD BUSINESS

The following items were discussed during Old Business:

Grants – Russell stated that all of the 2002 Homeland Security grant funding had been spent and he noted that some of the 2003 Part 1 funding had been used for a Continuity of Operations Plan (COOP) for County buildings. The rest of the 2003

Part 1 funding has been obligated for an ICS 200 class to be held next week. The 2003 Part 2 funding was spent on equipment, air packs, generators, etc. Russell also mentioned that all of the 2004 funding had been spent with the exception of about \$80 in citizen

corp funding. He explained that the state was requesting any leftover funding to be returned so that a western regional drill could be held; however, he felt that the \$80 could be used to purchase tarps for the HazMat trailer.

Communications Update – Hayden Bentley stated that the CML switch had been delivered and installed which would allow staff to track cell phone calls and he noted that all telecommunicators would be trained on how to use the equipment next week. He also pointed out that there would be 2 hearing impaired courses held that would be beneficial to any County staff who served as receptionist or answered telephones for departments.

NEW BUSINESS

The following items were discussed during New Business:

Update from Emergency Management – Russell informed everyone that Jason Williams had changed positions with the County and was now working with Economic Development and Utilities; however, he noted that Emergency Services staff would still use Jason as a resource and that he would remain on the LEPC. Russell conveyed his appreciation to Jason for the excellent job he did as Assistant Fire Marshal. He also mentioned that Mark Earle from Catawba County had taken Jason's place.

Russell stated that Tim Miller, Western Branch Director, had announced his retirement and would be replaced by Mike Cook.

Russell discussed a new private engineering firm called PBS&J that would privatize recovery efforts during disasters. He stated that the firm was working on a contract with FEMA.

Russell stated that N.C. had requested approximately \$206 million for 2006 Homeland Security funding; however, he noted that the state had only received \$20 million. He gave a brief breakdown on how the funding was planned to be spent and he pointed out that Alexander County would probably not see any of that money.

Russell mentioned that the N.C. Department of Transportation was proposing that several railroad crossings paralleling Highway 90 be closed, creating dead end roads. He also pointed out that several gate crossing were being proposed as well.

A meeting will be held on Thursday, August 10, 2006 at the Hiddenite Center regarding this proposal. Russell urged anyone opposing the proposal to attend.

Russell stated that Shurtape had agreed to be the Central Receiving and Distribution Point (CRDP) for Alexander County. He mentioned that Shurtape was also the County's CERT Team.

Russell reported that a regional exercise would be held on Thursday, August 10, 2006 to simulate a flood situation. He stated that Alexander County staff would be participating in the exercise and the EOC would be opened.

Russell stated that training would be held tomorrow, August 4, 2006, on the WebEOC Sparta Program which would allow real time communication between cities/counties, agencies, and Raleigh in a disaster.

Bio Terrorism Plan for the Alexander County Health Department – Billie Walker stated that she had attended a meeting last week where the Bio Terrorism plan was reviewed by Amanda Fuller, N.C. State Pharmacist, PHRST Team Member, and CDC Representative. She explained that ACHS had been identified as a storage location for vaccines; however, she noted that Ms. Fuller was not pleased with that location. Billie pointed out that she wanted every county to go "green" and to write a security plan. Therefore, she asked for assistance from Hayden Bentley.

Leeanne Whisnant pointed out that Billie had done a great job with writing this plan. She also stated that Ms. Fuller was unhappy with everyone's storage location.

Billie also discussed 5 new public health labs throughout the state, ours being in Charlotte. She explained that in the case of an outbreak, specimens could be sent to the Charlotte lab for testing instead of Raleigh which would result in test results being received the same day instead of 2 or 3 days later.

Avian Influenza NCDOA – Mark Howell gave a slide show presentation on Avian Influenza which included information regarding migratory bird routes, reporting investigation, mapping, testing, risk factors, response surveillance, quarantine zones, vaccination, euthanasia methods, appraisal and indemnification, disposal, etc.

Other – Yerby Ray from the Red Cross stated that staff planned to reinforce shelter capability, strengthen volunteers, and offer more training. Russell stated that some individuals appointed to several committees were no longer LEPC members and he asked that replacements be considered at the next meeting. The group agreed.

ADJOURNMENT

There being no further business, Hayden Bentley moved to adjourn at 1:32 PM lunch being served. Karen Hoyle seconded the motion which passed unanimously.

Respectfully Submitted,

Jamie M. Starnes, Clerk to the Board

Alexander County Local Emergency Planning Committee Meeting

February 8, 2007

MEMBERS PRESENT:

Greg Atchley	Billie Walker	Mark Earle	Tony Setzer
Hayden Bentley	David Icenhour	Leeanne Whisnant	Russell Greene
Keith Whitener	Bob Burns	Jason Williams	Jerry Cates
Jamie Starnes	John McCurdy	Lynn Marshall	Cherry Kilby*
David Garrison*	Bob Burns	Dr. Jeff Peal*	Doug Gillespie*

The Alexander County LEPC met on Thursday, February 8, 2007 at 11:00 AM in Room 103 of the CVCC / Alexander Center. A total of 16 members and 4 *visitors were present. David Garrison attended for Yerby Ray.

CALL TO ORDER

Russell Greene called the meeting to order at 11:00 AM.

APPROVAL OF MINUTES

Hayden Bentley moved to approve the minutes from the August 3, 2006 meeting. Keith Whitener seconded the motion which passed unanimously.

Presentation of Health Dept Bioterrorism Plan

Billie Walker stated that she had sent in the Strategic National Stockpile Plan in December 2005 and that the review was expected June 2007. Billie stated that she has sent the Pandemic Influenza plan for review and there were only four issues that needed to be expanded on. The first issue was to get more feedback and show that there were more groups participating in the planning of the Pandemic Influenza Plan. She asked that the Red Cross specifically review and make recommendations to the plan. The second issue was that the Strategic National Stockpile and Pandemic Influenza Plans be included in the County All Hazard Preparedness Plan. The third issue was the need to clarify and expand Law Enforcement participation in the Influenza Plan. In conjunction to this, Billie specifically requested Sheriff Bentley's recommendations and additions which would help contribute to making this a multi-agency plan. Billie also stated that

she added the ICS plan from the Health Department to her overall plan instead of using the current ICS. The fourth issue was the storage and transportation of human remains. It was stated that Alexander Trucking is handling this portion but the issue needed to be expanded by explaining how many refrigerated trucks, their size and how many bodies they could handle. The consultant suggested that Billie expand the school system and its role in an emergency and Russell suggested that a meeting be set up between the school system and Billie to further elaborate on a plan. Dr. Peal from the School System gladly agreed to contribute. Billie stated that she has a deadline of March 31 and will get the results from the review no later than April 31 and the county then has 6 months to revise and update. Leanne and Russell stated that for Billie to only have 4 issues on such an expansive plan was commendable and that she had done an excellent job. Russell inserted that this was also part of the LEPC's responsibility to recommend changes and updates to the Emergency Operation Plan to the Board of Commissioners for approval and addition.

OLD BUSINESS

The following items were discussed during Old Business:

Committees – Russell stated that the Tier Two Committee was operating satisfactorily and suggested leaving it as is. Russell suggested and the Committee unanimously agreed to re-use the Tier Two letter from last year to publicly request the Tier Two Information from industries in the county.

Russell suggested that the Emergency Operation Plan/Review Committee be dissolved due to the review being too much for just three members. To replace the dissolved committee he suggested that the committee members be contacted on an individual basis on the sections that pertain to them and make their recommendations to LEPC who would forward on the recommendations to the Board of Commissioners.

Communications Update – Hayden Bentley stated that the aerial photographs of the county had been added to the map. He also stated that a program was being started that would grade each call and that Doug Gillespie was assisting in this. The purpose of grading each call would help improve efficiency and provide training opportunities. He also stated that the call grading system would help meet inservice requirements since the state had mandated additional inservices.

NEW BUSINESS

The following items were discussed during New Business:

Annual Report – Leeanne moved to accept the LEPC Annual Report and submit it at the next Commissioner’s meeting for approval. Bob Burns seconded and the motion passed unanimously.

Appointments – Russell suggested that we reappoint the members whose terms were ending and suggested Bob Burns take up Dave Bristol’s remaining term. Russell also suggested that we leave Tamara Fawcette’s position vacant until a later date.

Hospital Update – County Manager Rick French provided an update on the hospital. Currently two groups are looking at purchasing. One would open a critical access facility and the other would open a multi-use facility. The issues were of course the cost involved and the building updates that would be needed.

Emergency Management Update – Russell provided an update on how the Emergency Management was handling the situation with the hospital closed. In answer to Hayden Bentley’s question Has it been worked out where we take patients that need further care, Russell said that the patient is transported to the nearest appropriate facility. In non-emergency cases the patient’s request was honored. An article in the Taylorville Times was suggested to let the public know that EMS had added an extra person during peak hours to fulfill any extra duties due to the hospital closing.

Emergency Response - Greg Atchley stated that the Homeland Security grants were no longer given to individual counties but instead were distributed regionally. The State Emergency Response Committee was holding their annual conference in Pinehurst this year and he would be attending. ??stated that on March 12 there would be a 5 ½ day exercise in Charlotte. Days 1 and 2 of the exercise would consist of Intelligence information, tracking, confirming and synchronizing attacks on terrorist cells that had started in Charlotte and spread to Western North Carolina. Day 3 would consist of a Mass Casualty exercise with 400 victims due to bad information on Day 1 and 2 and a cell being missed. He also requested any volunteer victims to contact him. Days 4 and 5 would consist of coordinating and implementing a response and recovery of a building collapse. Russell suggested that LEPC look at coordinating with Wilkes County to partner with the Viper Program next year.

127 Bridge Update – Lynn Marshall provided an update on the 127 Bridge. Lynn stated that upon further inspection our side of the bride has 2 cracks 1 ½” wide and the plats(?) had dropped down. There is a tentative plan to shut down the bridge for 3 consecutive days in order to do repairs, perhaps a weekend but not definitive dates have been agreed upon.

ADJOURNMENT

There being no further business, Hayden Bentley moved to adjourn at 1:32 PM lunch being served. Karen Hoyle seconded the motion which passed unanimously.

Respectfully Submitted,

Cherry Kilby,

Alexander County Local Emergency Planning Committee Meeting

May 24, 2007

MEMBERS PRESENT:

Leeanne Whisnant	Russell Greene	Bradley Earp	Karen Hoyle
Patti Foster	Bob Burns	John McCurdy	Micah Henry
Steve Icenhour	David Garrison*	Michael Barrick*	Greg Atchley
Mark Earle**	Cherry Kilby**	Billie Walker*	Mike
Carrigan*			

The Alexander County LEPC met on Thursday, May 24 2007 at 11:00 AM in the Emergency Services Office/Old Wittenburg Fire Department. A total of 10 members 3 *visitors, with Mike Carrigan as a substitute for Tony Setzer and 3** staff representatives were present.

CALL TO ORDER

Russell Greene called the meeting to order at 11:09 AM.

WELCOME & INTRODUCTIONS

Russell welcomed everyone to the meeting and had everyone introduce themselves so we would know the new faces at the table.

APPROVAL OF MINUTES

Leeanne Whisnant moved to approve the minutes from the February 8, 2007 meeting. Bob Burns seconded the motion which passed unanimously.

OLD BUSINESS

The following items were discussed during Old Business:

SNS/Preparedness Influenza Plan –Billie provided an update to the SNS plan she had submitted. There has been no response from the SNS or the Influenza Plan, so she’s waiting on a response.

Tier II – Mark provided an update on the Tier II program. They had a total of 24 Tier II reports filed with a total number of 24 companies. Last year we had 28 reports filed. Mark is going to follow up with the remaining four companies to see if they are out of business or need to file a report. Russell mentioned that there are some possible changes to the way the reporting is done. Greg Atchley interjected that there is new legislation that would require more thorough reporting as well as better public access.

Communications – Russell stated that so far everything was going smoothly and the only problem being an old transmitter on the mountain. The transmitter drops the PL property which enables us to block out outside traffic, so we end up hearing about out of state calls etc. The cost to replace is about \$15,000.

Hospital Update – Russell provided a hospital update. The state still holds the hospital license and will continue until someone buys at which time the license will pass to them. Outside interests have been expressed from both Missouri and Mississippi. Russell had the impression that the Mississippi interests were to be in town today. Russell noted that the County Manager and the Commissioners have made every effort to get the hospital opened. Russell reported that in February we added the QRV (Quick Response Vehicle) manned with one paramedic was operated on 8 hour days, using Rescue as backup and transport if needed. In March QRV was moved to 12 hour days and in April QRV became 24/7. This has been used as an effort to take up the slack of not having the hospital opened. It was also stated that having a contract with the Rescue Squad really helped out. However, Rescue was expressing some irritation at the high level of standby calls they had received. The maps at the center of the table were provided by GIS to give some idea of how Alexander County fared in comparison to other counties. It provided a look at the big picture. Alexander County has 6 hospitals within 25 miles. Some counties have to travel further and still more counties have no hospital available.

NEW BUSINESS

The following items were discussed during New Business:

EM Report – Russell provided a report on several incidents that EM has had to respond to lately.

- 1) **Bus Accident** – Things could not have been better. EMS/Rescue transported 5 patients to Frye, 1 to Catawba. 30 kids and one driver were transported to Family Care via bus and one student rode with parents to Family Care. Family Care's response was commendable. They dropped absolutely everything, and had all staff attending to these patients. Family Care treated and released all patients in 1 hour 15 minutes. While Family Care's response

was great, if it had been a serious accident with many serious injuries, we would have had to transport to several emergency rooms even if we had one open ourselves.

2) **Windstorm** - As a county we were extremely lucky. The Library, a resident's pick up and another resident's building were damaged. There were no personal injuries. Rescue, Fire Departments from Wittenburg responded to assist Taylorsville Fire Department an EMS responded. The state issued a declaration of disaster and the town qualified for assistance as did another town, Tryon. As a side note there was a Declaration of Disaster for the freeze we experienced for Agriculture purposes.

3) **EM Conference** – Russell attended an EM Conference and shared some of the topics that were discussed. The buzzword for the conference was TEAM (Together Everyone Achieves More) and felt that was a good description of Alexander County. We always work together and get the job done.

- i. The new EOC Web access was discussed and during the class the computers were working and they were able to access and navigate around the website.
- ii. Russell attended a class on Legal Issues as well as a class the Office of EMS was giving on their reporting system and it's accuracy. During the class, Russell raised the question of what the time frame is for staff to get in their reports and the majority of counties require 24-72 hours which would mean that the data in the system is not as accurate as it appears.
- iii. Russell also attended a class about Special Needs – Dementia Patients. He said it really helped solidify that in planning we also need to prepare to meet the special needs of our populations, whether it be the non-english speaking citizens or the medical/mental special needs patients. We should work toward having an evacuation and shelter plan for these citizens. This brought up the question of pets.
- iv. **Pet Care** - Mark is working with Animal Control to devise a plan to care for pets, from evacuation, care during emergency and return to owners. It was stated that we must be able to provide a shelter for the animals, but not necessarily with the owners. The Animal Shelter itself seems a good place to start. Bob said that he had discussed with Animal Control the possibility of a trailer with cages that could be pulled and stored at shelter with a canopy to protect the

animals during an emergency. Russell suggested that Bob participate in the planning with Mark and Patti (Animal Control Director). Patti Foster (Transportation) raised the question of would we be sending a vehicle with cages when conducting an evacuation? This raised a good point and it will be added to the points that Mark, Patti and Bob will address. Patti suggested that we make it known that during an emergency evacuation that owners can take pets with them (to be sheltered at a different location) and it would be a good idea to have a cage/carrier ready. Billie suggested that it could be put on the various checklists made available to the public. The discussion then opened to various pets i.e. lizards, exotic animals and Greg interjected that they must meet the definition of a companion animal.

- v. **Live Wire Demo (at EM Conf)** – Russell attended a live wire demonstration and was impressed with how much damage a live wire can do with proper protective measures in place. He stressed that unless a power company representative can hold the wire in his hands and say it is dead, it must be treated as a live wire. A recent incident where responders had to wait 90 minutes for a power company representative to come and shut down a line in order to assist the patient stresses the importance of good communication and a quick response from the power company as well as our personnel. The incident is being looked into.
- vi. **RENCI (Renaissance Computer Institute)** – Company introduced that is developing new technology for Emergency Services Personnel i.e. wireless cameras, remote sensing, video teleconferencing, drone airplanes etc.

Health Department Pandemic Plan Test –The Health Department conducted a test of it's Pandemic Flu plan during clinic hours last Tuesday. They pulled 40% of their staff and the remaining staff had to function as a complete staff. The exercise went well with employees helping out in areas that were not necessarily their areas. The exercise also helped highlight the weaknesses that need to be worked on. Billie said it was great at pointing out areas that aren't always thought of like their front office software, and the fact that the only people who can operate it are the front staff. Karen pointed out that while the exercise was useful during an emergency not only will we be operating with less staff but the situations we will be asked to handle won't be normal routing requests. Russell

interejected that Shurtape is leading the industry field on testing and currently implementing their plans, and that as a whole we should be testing as we plan.

CRDP (Central Receiving Distribution Point) – Shurtape has been designated as the point where the state will send supplies for any emergency. Russell would like to see us implement a plan and drill establishing POD (Points of Distribution) throughout the county. The state has hired a company to do an inventory of resources and create a generic CRDP guide. We should see that by the end of June and after that we should begin to plan and drill. Any and all ideas are welcome.

FRMC/ Michael Barrick – Russell introduced the new Preparedness Coordinator from Frye Regional. Michael Barrick is very supportive and interested in serving the citizens of Alexander County. Michael is working in conjunction with his counterpart at the hospital in Wilkes County. Micheal is interested in conducting drills with us and Wilkes County to see where we are and where we need to be in our response to emergencies.

Grants –

- 1) Greg shared that we were awarded a \$4900 HMEP grant in order to conduct a commodity flow study. This study will help us determine what hazardous materials are going up and down our roads as well as in and out of our county. Once we know the materials that could be present we can establish a plan to deal with the cleanup should an accident happen as well as have exercises to train our personnel in how to deal with these accidents.
- 2) CEDAP is a Homeland Security grant where they award equipment instead of money. We were awarded a RIOS, which is a piece of equipment that would allow people with different communications equipment to communicate i.e. a fire radio and a nextel phone if both plugged in could talk to one another. This equipment will help us establish better interoperability between our departments.

Red Cross – Bob was happy to announce that he is almost finished with establishing his DAT (which is the on-call response team for the Red Cross). He has about 9 people that are almost finished with training and Red Cross will be able to have a team of people to rotate on-call so the same people aren't always called. David Garrison stated that he was currently on the state's PLOT team which would mean before a storm and a few days after the storm made landfall he would be Raleigh and his office was coordinating with each other to fill his position when this occurred. Russell reminded everyone that the Ride for the Red was June 9 and would start at Blue Ridge Harley, proceed south to 16, hit Millersville, the first stop would be at the Red Cross office about 11:00am where participants would receive a snack, proceed on to Bethlehem and then back to Iron Thunder. \$20 was the cost of the ride and that gets a t-shirt, a pokerhand and

food. There was some concern about the day being Graduation in Alexander and Iredell as well as a bike rally being held in Iredell but we have received a good response.

ADJOURNMENT

There being no further business, Russell Greene moved to adjourn at 12:05 PM with lunch being served. John McCurdy provided the meal's blessing..

Respectfully Submitted,

Cherry A. Kilby

Alexander County Local Emergency Planning Committee Meeting

February 8, 2008

MEMBERS PRESENT:

Tommy Campbell *	David Garrison *	Carlos Hernandez *	Billie Walker
Mike Carrigan *	Russell Greene	Steve Icenhour	Leeanne Whisnant
Mike Cook *	Cole Gurley *	Lynn Marshall	Keith Whitener
Mark Earle	William Hammer	John McCurdy	Jason Williams
Bradley Earp	Micah Henry	Tony Setzer	

The Alexander County LEPC met on Friday, February 8, 2008 in Room 103 of the CVCC / Alexander Center. A total of 13 members and 6 *visitors were present.

CALL TO ORDER

Russell Greene called the meeting to order at 11:40 AM.

WELCOME & INTRODUCTIONS

Russell welcomed everyone to the meeting and introductions were made. Mike Cook stated that he was representing Greg Atchley from the NC Emergency Management Office. Cole Gurley discussed his background and his current position with the NC Department of Transportation.

APPROVAL OF MINUTES

A motion was made to approve the minutes from the May 24, 2007 meeting. William Hammer seconded the motion which passed unanimously.

REPORTS & PRESENTATIONS

The following reports were given:

2007 Grants Report – Russell reviewed the report generated from a recent HMEP Commodity Flow Study that investigated areas of the county located on Highway 64 at the Iredell County line as well as the intersection of Highway 16 and Highway 64. These areas were classified as Class 3 (flammable liquids) and Class 2 (Gases). He stated that another grant application had been submitted for studies for Highway 127 at the Catawba County line and also Highway 90 west.

Russell discussed the Homeland Security Program that provided Alexander County with a Radio Inter-Operability Operation System that would allow all organizations to communicate with each other. He stated that staff hoped to have the system installed by the end of the year.

He also stated that Alexander County was still on the list to receive two 39 foot campers, explaining that the Center for Disease Control would not allow counties to take them because they were possibly contaminated with formaldehyde.

Communications Update – Written protocols have been established for dispatching of all emergency service agencies in the county. Russell stated that he and Sheriff Hayden Bentley met with all fire departments, EMS, and the Rescue Squad to develop these protocols.

Tier Two Reports – Mark Earle requested approval of a press release for the Tier Two Reports to make them available for public inspection as required by the 1986 Community Right to Know Act. A motion was made to approve the press release and seconded which passed unanimously.

Health Department Update – Billie Walker stated that she was working on getting the SNS plan changed to allow materials to be housed at Shurtape instead of at ACHS. She explained that the current plan provided for materials in the first gym and the clinic area in the new gym; however, she pointed out that having the materials housed in the same location as the clinic was not good practice.

Billie also discussed a drill for emergency workers that was held at the County Administration Building as well as a regional drill to be held in Cleveland County on April 9, 2008. She invited everyone to participate.

Leeanne Whisnant reported that the flu was widespread in North Carolina and Alexander County. She stated that the Health Department had about 150 doses of the flu shot left. She also noted that there was a lot of strep throat and stomach viruses going around and she urged everyone to wash their hands and stay at home if they got sick.

Significant Responses – Russell pointed out that any incident that tied up all emergency service workers was considered a significant response and he

discussed the accident that occurred on Highway 127 and Willie McLeod Road which involved a school bus and a mini van. Six students were taken to Family Care Center either by a parent or school representative and were quickly treated.

NEW BUSINESS

The following items were discussed during New Business:

Regionalization – Russell informed the group that federal Homeland Security was pushing for all states to become regionalized. In response to this, 7 regions made up of counties have been developed in North Carolina and each region has a committee of representatives from health, emergency management, law enforcement, fire, public works, etc. Russell stated that each county had an opportunity to nominate someone to be on the regional board, noting that Leeanne Whisnant was the health representative for our region and that he was the alternate. The purpose of the committee is to focus on planning and determining the best utilization of Homeland Security funds.

Russell agreed that the state needed to regionalize its efforts in response to disasters; however, he expressed concerns with the current regionalization plan and Alexander County being grouped in the Greensboro region instead of with more western counties. He noted that the plan would be reviewed and possibly revised within the next 6 months.

Technology – Russell announced that a server was now available in Room 103, also the EOC, which could be loaded with the latest GIS information. If a disaster occurs, GIS Coordinator George Brown will be able to connect his computer to the server and provide a live feed of data and a county map projection.

The Renaissance Computing Institute was developed to streamline technology for emergency services and make it more efficient. Russell stated that the program provided live weather conditions for local areas that included temperature, dew point, wind speed and direction, and live radar that helped staff prepare for inclement weather and make more informed decisions about school delays and closings. He also noted that middle and high schools would be given an opportunity to present a proposal to become a local reporting station.

Russell also discussed the Smile Tiger program that would allow staff and emergency personnel to conduct a video conference while sitting at their own computers. This will save on travel time and costs.

2008 Grant / Training Opportunities – Russell stated that the state had three pots of money, two of which were guaranteed to counties (\$8,400 for ICS class trainers and \$7,500 for training of staff). There is also \$800,000 that will be

distributed based on the scoring of proposals submitted by counties for exercises. Russell suggested Alexander County's proposal include education of emergency services workers, nursing home staff, and Health Department staff, a table top exercise of a tanker roll over on Highway 64, and then finally a full-scale exercise to follow.

Leeanne mentioned the need for some Health Department staff to participate in ICS training.

Mike Cook discussed the advantages and disadvantages of training funds. He stated that funding could be diverted to CVCC to administer training but noted that industry representatives would have to pay to attend. He pointed out, however, that counties could retain that funding and provide training to those individuals free of charge.

Annual Report – Russell presented the LEPC Annual Report to be reviewed by the members. He explained that statutes required an annual report be given to the Board of Commissioners each year that summarized actions of the committee.

A motion was made to approve the LEPC Annual Report so that it could be presented to the Board of Commissioners. The motion was seconded and passed unanimously.

Appointments – Russell recommended the reappointment of William Hammer, Leeanne Whisnant, Hayden Bentley, and himself to the LEPC as well as the appointment of Clint Patterson.

GROUP CONCERNS

Russell asked the group to fill out the short survey provided with the agenda regarding LEPC meetings times and notices.

Bradley Earp, EMS Director, discussed the impact the closing of the hospital had on the EMS Department, noting that there had been 500 out-of-county transports in 2007.

William Hammer pointed out that County staff had met with representatives from Louisiana, Missouri, and the Department of Corrections about use of the hospital. He stated that the County did not plan to operate a hospital but was working to develop a solution.

William also thanked the volunteers and emergency staff for their commitment. He stated that many counties did not have the excellent working relationship we had in Alexander County.

David Garrison invited everyone to attend a Chapter Disaster Readiness Exercise to be held on March 6, 2008 from 8:00 AM to 4:30 PM at the Catawba Valley Chapter Hickory Office. He explained that evaluations were held every 3 to 5 years.

ADJOURNMENT

There being no further business, a motion was made and seconded to adjourn at 12:58 PM. The motion passed unanimously.

Respectfully Submitted,

Jamie M. Starnes, Clerk to the Board

Alexander County Local Emergency Planning Committee Meeting

July 10, 2008

MEMBERS PRESENT:

Keith Whitener Coulbourne*	Russell Greene	Bradley Earp	Danny
Patti Foster	Bob Burns	Sylvia Turnmire	Micah Henry
Steve Icenhour	Jason Williams	Jeff Roseberry*	
Mark Earle**	Cherry Kilby**	Billie Walker	

The Alexander County LEPC met on Thursday, May 24 2007 at 11:00 AM in the Emergency Services Office/Old Wittenburg Fire Department. A total of 10 members Danny Caoulborne as a substitute for Karen Holye and Jeff Roseberry as a substitute for Tony Setzer and 2** staff reprepresentatives were present.

CALL TO ORDER

Russell Greene called the meeting to order at 11:45 AM with lunch being served. Russell provided the meal's blessing.

WELCOME & INTRODUCTIONS

Russell welcomed everyone to the meeting, and had everyone introduce themselves so we would know the new faces at the table. Russell also asked everyone to sign in so we could have a record of attendance.

APPROVAL OF MINUTES

Steve Icenhour moved to approve the minutes from the Feberuary 8, 2008 meeting. Keith Whitener seconded the motion which passed unanimously.

OLD BUSINESS

The following items were discussed during Old Business:

Public Health Plan Review –After an introduction by Russell, Billie Walker gave a review of the Public Health Plan that she has been working diligently on. Billie will be audited in August by the state; and we are one of only three counties selected for this.. The Strategic National Stockpile/Health Plan is reviewed yearly as well as the agreements concerning the Local Receiving Sites (LRS) and points-of-dispensing (PODS). Memorandums of Understanding are a requirement from the state and Billie has been working closely with Emergency Services to get everything she needs in place for the August Audit. She has also had to collect all the LEPC minutes because LEPC is the her advisory board. This plan will also be an appendix to the County All Hazards plan. Billie then presented a general overview of all the information as well as detailed maps of LRS/PODS. Billie praised the ACHS GIS class who were instrumental in getting maps done. Russell interjected that Billie has done an excellent job; all while still doing her “normal” job of Director of Nursing at the Health Department. Russell discussed a potential full scale exercise in the fall with a potential tour of the LRS and how it works was discussed, as well as how Emergency Management and Public Health do a lot of the same things, but they give them different names. At Keith Whitener’s request, the MOU concerning the DOC and feeding will be expanded. It was also noted how positive a partner the DOC is to the county.

Tier II – Mark provided an update on the Tier II program. They had a total of 28 Tier II reports filed with a total number of 28 companies. As of today all the appropriate companies have filed.

Communications – Russell stated that to date a SOG for the telecommunicators was being developed with input from a variety of agencies including the fire departments and EMS.

Russell, Greg Cronk and Greg Foster met with Motorola about what the next step in meeting our communications needs should be. There are serious concerns about some dead spots in the county that could be life threatening. The biggest concern is that some deputies have no way of communicating once they go into some homes. In an effort to resolve this issue, Motorola is putting together a map of their coverage areas as well as some recommendations.

Regionalization – Russell provided a regionalization update. The state is moving forward with regionalization. Leanne Whisnant has been appointed as the Health Representative for 16 counties. A capability assessment was required and Emergency Management, Law Enforcement and Health Department had completed the necessary paperwork. These assessments will follow a schedule of 11 in 2008, 11 in 2009 and 13 in 2010. These assessments should give a good picture of our abilities in handling situations and where we need help. The Regionalization meeting for July 14 had been cancelled.

NEW BUSINESS

The following items were discussed during New Business:

EM Report – Russell provided a report on several incidents that EM has had to respond to lately.

4) **Avian Drill**– We participated in a statewide Avian Influenza Drill on April 29. Our county has this \$70 million dollar a year industry. If we could not contain an outbreak it would devastate our county. We currently have 186 families with over 600 poultry houses in our county. The Department of Agriculture and the state Lab worked with just our county and Sampson County to implement this drill. The Department of Agriculture put together this drill. There were some concerns discovered. The Department of Agriculture’s ability to work in ICS however ICS is new to them and they are at the beginning of their learning curve. We (including State representatives) realized that they cannot direct things from Raleigh. They are going to have to have “boots on the ground” in the form of an on-site Area Command at least. The Sugar Loaf and Ellendale Fire Departments as well as the EMS and Health Department participated in the exercise and utilized it to discover our strengths and weaknesses. Every participant treated it as a real outbreak and we used all available relevant resources including a local church as a staging area, setting up a decon area at the location, public health surveillance etc. At the AAR (After Action Review) a work group was developed in order to better coordinate with county governments. The state plan says the Industry must do it all, they are responsible, however Industry can not do it all themselves. They will have to coordinate with locals i.e. fire departments for water, EMS and Public Health for decon and Law Enforcement for Security. The state Lab also learned what it needed to do in order to run smoothly with an overload of samples in a rush setting. At this point Russell asked the members about the potential of adding Poultry Industry Rep to the committee. Steve Icenhour and several members thought it would be an excellent idea to give us more insight into what the needs will be and how we can best meet their needs. Patti Foster made a motion and Jeff Roseberry in conjunction with Steve Icenhour seconded. The motion passed and Russell will present the motion to the Board of Commissioners.

5) **Bus Accident** - A summerschool bus and a Navigator collided. There was serious damage to the auto and we transported 4 to Frye and 4 to Family Care Center. The School System moved into action and contacted the parents immediately. One victim was transported to Family Care by parent for a total of 5 seen by Family Care. This

incident highlighted some of issues with not having a local hospital but it also highlighted how efficiently our county agencies and facilities work together. Family Care Center again stepped up and met the need of checking out victims. Our responders did an excellent job of seeing and prioritizing the injured as well as handling partners. The School System did a great job especially consider it was a summer school bus with victims from 3 schools. Dr. Jeff Peal said it was interesting for them to have to utilize resources not normally used. The staff at the schools were summer staff, not normally there and the buses carry students from multiple schools. All in all it was handled well by all.

- 6) **Commodity Flow Study** – Russell gave an update on the grant we received to fund a second commodity flow study. Last year we did a study on the East Southwest half of the county. This year we did one on the ? of the county. Keeping in mind that this is a snapshot of the transfers into and out of the county. It is done in 30 minute increments. On the first day we had 205 non-placarded trucks and 3 placarded as a Class 3 which is flammable. That night we had 4 non-placarded with 1 placarded truck. On Wednesday we had 202 non-placarded and 7 placarded. On Thursday we had a total of 287 with 14 placarded. 9 were Class 3 (flammable), 1 was a Class 6 (Poison) and 4 were placarded Class 8 (Corrosives). On Friday, we had 241 with 5 placarded Class 3, 5 (Oxygen) and Class 8. This study shows that we definitely have hazardous materials passing through our county. To get a complete picture we will be speaking with Alexander Railroad to see what they transport into and out of the county. Through initial conversations, they have already agreed to share this information.

Grants - Russell provided an update on the various grants that Emergency Management has received.

- 1) **NIMS Training (\$8400)** – We received both the NIMS Training and Train The Trainer Grant Funds. However, we signed the Train the Trainer Funds back to the State because we could not meet the requirements. However, the State has agreed to have this type of training in this region so the trainers we have can further their capabilities. We are looking at having an Incident Management Team that would respond only to incidents inside the county. We need to be looking at the the jobs that logistics, planning, finance and fire chief's jobs in an emergency and how the jobs work together as a whole.
- 2) **Exercise Grant (\$38,000)** – These funds will go towards
 - i. Training Emergency Management, Valley Nursing, EMS, Health Department and the Schools in an effort to meet the various needs we know now need to be met..
 - ii. Tabletop Exercise in 2009

iii. Full Scale Exercise in 2010

We are looking at a scenario that will potentially impact the schools and/or Valley Nursing Center. We are interested in incorporating Valley Nursing Center into the scenario because of their special needs populations (Vent Patients). We can currently only transport 3 vent patients at a time, and that will tie up all our available resources. We need to examine how we are going to respond to Valley's needs should a disaster arise requiring this. Another reason this is growing concern is Valley is looking to expand their vent unit. There are only 17 vent units in the country and Valley is one of them. If Valley proceeds with the proposed expansion, our burden as emergency responders will only become greater. Bob Burns inquired as to Valley's responsibility. Russell responded that as a for profit agency they should have their own emergency action plan, however the responsibility will ultimately fall back to Emergency Services. Jeff Roseberry questioned the possibility of shelter-in-place and where we would evacuate to if we could not shelter-in-place. The ideal would be to shelter-in-place however with Valley currently at a 22-24 bed vent unit and looking to expand to at least 49 with a possible additional 20-30 an innovative solution is becoming a necessity. Mark Earle raised the concern that if we are in a disaster, we more than likely will not even have our 3 ambulances to use because they will be tied up somewhere else and if they are not, do we really want to lock them into somewhere and leave our remaining 35,000 citizens without? These are all issues we hope to use the grant funds to at least start finding a solution to. We concluded that either way, it will be labor intensive for Emergency Services because currently Valley does not have enough staff to respond to an emergency so eventually it will be our responsibility and we must be able to meet this need. Bob Burns inquired as to whether we look at these potential needs before allowing facilities to expand. No one seemed to know the answer. Russell did state that on the Federal and State levels, Emergency Management is developing a Best Practices and possibly a Special Needs registry. However, the concern with a registry is how would we maintain it? Keith Whitener suggested senior adults and youth at various churches could use this as a mission outreach program. They could call and update the registry during the summer months. Patti Foster asked if it would be feasible for Transportation to share its database with Emergency Management. Russell agreed that would be a great beginning to the special needs registry. Pattie said that they could begin getting approval to share the information with Emergency Management part of the initial questionnaire. Of course they could only share information on transportation customers but it would be a start. It was stated that Duke Power has all this information, but their lawyers prohibit them from sharing the information with Emergency Management. Bradley Earp raised the question about the special needs population that maybe unknown to us i.e. Home Health Patients that are serviced by private home health agencies.

Other –

1. **Red Cross** - Bob Burns said that there was no new updates for the Red Cross, however at the next exercise he would like to have the Shelters interact with DSS and the Health Department. This will happen in a real emergency and to date they have not had an opportunity to work with another to see how well they mesh and he would like Red Cross to be given that opportunity. Bob is extremely pleased with the county support and so far he has had no problems. Russell informed the committee that the Catawba Valley Red Cross Board is expressing concerns about having to dip into their reserves and are trying to overcome this issue. Red Cross has helped a lot of families in this area. Bob stated that the average fire costs Caldwell \$1600, Catawba \$1100 and Alexander \$650. Bob stated that because Red Cross Funds are limited, he offers our families in need a menu that is a list of necessities they can pick., but above that he utilizes other available resources i.e. the Christian Crisis Center. In order to ensure that we will always have the Red Cross, The Red Cross are looking at being trained to be much more cost effective while still meeting the needs of their citizens. Red Cross on a national level has realized that they are going to have to “tighten the belt” in order to ensure a future for the Red Cross.
2. **Department of Corrections** – Keith Whitener informed the committee that the DOC had recently went through the Field Audit (Risk Management Audit) in June for accreditation. It was a good process to go through and they managed to get rid of a lot of dangerous chemicals etc in efforts to make DOC a safer environment. They saw a lot of support and are looking to make a lot fo health changes in order to better benefit the staff and inmates. Mr. Whitener remarked that the training does work as exhibited by how well everyone handled the recent small fire. Bradley Earp will be Trauma Training the first week of August to help the staff better respond to potential emregencies that may arise especially with the furniture company on site staffed by the inmates. In the fall they are looking to begin construction on a 210 inmate minimum custody facility which will make work force available to the county. Another example of the how the DOC is a positive partner for the county.

Next Meeting: A date of Oct 30 with an alternative date of Nov 6 was decided upon.

ADJOURNMENT

There being no further business, Russell Greene moved to adjourn at 1:05 PM. Bob Burns motioned and Steve Icenhour seconded.

Respectfully Submitted,

Cherry A. Kilby

Alexander County Local Emergency Planning Committee Meeting

October 30, 2008

MEMBERS PRESENT:

Keith Whitener	Russell Greene	Patti Foster	Bob Burns
Sylvia Turnmire Bentley	Micah Henry	Stephanie Freeman*	Hayden
Steve Icenhour Whisnant	Jason Williams	Jeff Roseberry*	Leeanne
Mark Earle**	Cherry Kilby**	Billie Walker	Karen Hoyle
John McCurdy	Jerry Cates	Greg Atchley	Dr. Jeff Peal

The Alexander County LEPC met on Thursday, October 30, 2008 at 11:30 AM in Room 118 of the CVCC-Alexander Campus Building. A total of 16 members attended with Jeff Roseberry as a substitute for Tony Setzer, a guest of Mr. Whitener's, Stephanie Freeman from Raleigh, and 2** staff representatives were present.

CALL TO ORDER

Russell Greene called the meeting to order at 11:45 AM with lunch being served. Russell provided the meal's blessing.

WELCOME & INTRODUCTIONS

Russell welcomed everyone to the meeting, and had everyone introduce themselves so we would know the new faces at the table. Russell also asked everyone to sign in so we could have a record of attendance.

APPROVAL OF MINUTES

Sylvia Turnmire moved to approve the minutes from the July 10, 2008 meeting. Steve Icenhour seconded the motion which passed unanimously.

OLD BUSINESS

The following items were discussed during Old Business:

SNS State Review –After an introduction by Russell, Billie Walker gave a review of the State’s evaluation of the SNS Plan. The State sent 4-5 Pharmacists to review this plan. Billie was happy with the outcome. The SNS plan received a 67.9 rating out of a possible 100, and Billie noted that Mecklinburg County, who hired someone to complete their SNS Plan only scored a 67. Billie was hoping for a 50, but was thrilled with 67.9. Billie noted that due to Shurtape’s excellent tracking system, that section of the plan received a 24 out of 24 rating, and to Billie’s knowledge, we were the only county to do so. Both Russell and Leeanned commented on how hard Billie worked and how well she done and they both recognized Billie and Shurtape for the wonderful outcome. Billie stated that this was to be used a point of reference to gauge where we were at and what we needed to do to to get where we need to be. Billie suggested an exercise in order to practice all the points on the SNS in order to get all personnel involved familiar with the plan. Russell stated that we now have the funds to hold a large scale exercise and plans to tie in all the agencies in this exercise.

Communications – Hayden provided a communications update. Initially, they were trying for a grant in order to get a mobile command communications center, however, the grant would only cover a fraction of the cost. In order to adapt to the growing needs, they will continue to pursue the grant, but the current idea is to buy equipment so that officers can take reports and access information directly from their vehicles.

Regionalization – Leeanne and Russell provided a regionalization update. The state is moving forward with regionalization. As the DPPR Health Representative, Leeanne Whisnant attended the last DPPR meeting. In this meeting a discussion evolved that expressed the regions dismay at being in a DPPR with agencies that do not normally rely on one another. Due to this fact, a request was put forth to add another region in order that we, in particular may be in a region with the counties we actually rely on for help. This request has moved forward to the state level. In talking with Mr. Sprayberry, Russell stated that Mr. Sprayberry indicated this would actually potentiall go much furhter ending with a total of 9 DPPR, 3 in each branch. This request is now sitting with the Secretary of Crime Control and Public Safety. Russell stated that no one actually opposed regionalization, but that everyone advocated a more realistic approach to the organization. Russel stated that adding another DPPR created a lot of extra work for the state in that another budget would be needed etc. In the meeting, Leeanne stated that grants were discussed and our DPPR put in for 7 – 8 grants for different projects. This will move to the state level for evaluation, where they will rank the projects in order of importance. Leeanne stated and Greg concurred that we have a slim chance (read: 2 in 100) of getting a project funded.

NEW BUSINESS

The following items were discussed during New Business:

Reports – Different members made reports on the following subjects:

- 7) **Red Cross** –Bob Burns (Alexander Branch) and Jerry Cates (Catawba Valley Chapter) updated the committee on current Red Cross news. Bob stated he was eagerly awaiting the chance to serve a homestyle meal but was unable to do so at the latest incident due to logistics. Bob was quite excited about the new vehicle that the chapter has been made caretaker of. Bob stated that they could feed quite a lot of people with this vehicle. Jerry reiterated that the chapter was extremely lucky to receive this vehicle, relatively new. The vehicle spent its first days in Texas assisting with the hurricane relief, before the chapter received it. Jerry also passed around brochures while stating that the Red Cross is only able to do its job through volunteers (97% to be exact). Jerry stated that for the year ending June 2008, they had 274 volunteers contribute 22,578 hours for a total of \$388,000 contribution. The Red Cross spent \$70,000 in assistance with their biggest challenge being balancing the budget. Their biggest expense in assistance was due to assisting more people as well as taking on Caldwell County because their branch shut down. Keith Whitener stated he heard that a discussion on the national level stated that if the national level needed funds they would dip into local chapters reserves and wanted to know how close that was to happening here. Jerry Cates stated tactfully that while it was actually discussed that no one foresaw that action being taken. Jerry also explained how the donations are handled. Jerry stated that when you make a donation to the American Red Cross, then 91% goes to the national level, with just 9% staying local. Jerry then stated that if you want your donation to stay local, you should specify Catawba Valley Chapter of the American Red Cross. Jerry also stated that all the chapters actually pay dues to the National level, which a lot of the members were unaware of. Billie asked stated that if volunteers were needed, then they could set up a table at the Senior Center during the health fair, and Bob stated he was already planning to do that. Bob then discussed that the shortage of volunteers was frustrating but not a disappointment because the citizens in this county were great volunteers...but for other organizations i.e. church. This does create volunteer needs in Red Cross, however, you can't be upset with the fact that they are volunteering. Bob then did a basic rundown of what our branch spends versus other facilities. The average disaster costs us about \$700, while Catawba pays \$1100, and Caldwell \$1500.00 Bob said the people definitely appreciate the assistance and that our branch tries to use its funds as wisely as

possible. Patti Foster inquired if they could get volunteer applications to pass out to the transit employees as a volunteer drive. Jerry and Bob were definitely interested in this.

8) EM Conference - Mark Earle and Russell Greene provided a report on the EM Conference. Mark stated the conference was informative and that a new website plan developed by the University of Texas was being implemented. This is the E Plan. The E Plan is a web based application that will allow facilities with hazardous material to file their Tier II information versus a hardcopy Tier II Report. Primarily this site is for 1st Responders to use when responding to a potentially hazardous call. The responders can pull up this site and evaluate the chemicals etc. on that particular scene. Mark stated that the county would determine who would get access. Mark also suggested that we require all our businesses to submit their information to the website as well as file a hardcopy Tier II Report to the Fire Marshal's Office. Keith Whitener asked how do they go about access the website. Mark replied they must sign up as a new user and complete the information. Greg Atchly suggested that the county only have 1 administrator who would determine the level of access of each of the users. Jeff Roseberry (Shurtape) interjected that as of March 2009 or 2010 this would be mandatory for them simply because in Pre-Incident Planning, this puts them way ahead of the game. The discussion then moved on to the Emergency Response Guide (ERG). Russell stated that this would be the last time the ERG would be available in a hardcopy. The subsequent versions would be on cd only. Russell wanted to ensure that ALL vehicles have this updated copy as well as the DOC (Keith Whitener). Russell then took up the update stating that the Association decided to maintain 2 conferences a year, a usual, but they conceded that that there should be one in the east and one in the west versus 2 in the east, as has been the practice. In the Western Branch meeting there was a minor problem discovered in the gas "crisis" we experienced a few weeks ago: The information on gas availability was only flowing one way. The major problem discovered was that while the state requires each county to have an emergency plan for fuel, the state does not have one, and neither does the federal government. This presents a great vulnerability should the pipelines be shutdown for any length of time. Keith interjected that the DOC staff would be contact our offices for assistance in putting together a plan for their employees and families for when an emergency occurs. Keith stated that it is a given that an employee's first objective will be to care for their family and not work. The plan that the DOC is looking to put together would provide for staff families i.e. sustenance, secure housing, health etc. Keith stated (and everyone agreed) how

important is to ensure the DOC is staffed at all times and this enhancement of their emergency plan is aimed to accomplish this. This opened a discussion about needs during a fuel shortage. Karen Hoyle also brought up how critical it was for protective services and home health nurses to have fuel because they must be available at any time. Russell stated that when we update the continuity plan, we need to include a fuel shortage plan. Leeanne said that one of the needs was involving animals. The Animal Shelter and a private kennel are available to date if needed, but that may not be enough. Keith stated that finding emergency workers can become an issue because people want to make sure their families are taken care of and for some that includes their pets. Karen stated that to man a shelter during a disaster takes every employee at DSS but realistically a lot of them will not be there because they will take care of their families first. Billie shared how the health department did an exercise where half of their staff was “not at work” for a day to see where their weaknesses were in such an event. Billie said it was definitely an eye opener but they were able to determine what they needed in instruction manuals for each department in order to operate. Russell reiterated that our only limiting factor was manpower. As a county we need to be prepared to take care of ourselves for at least 96 hours.

9) Large Event (Manhunt) –Hayden started this report commenting on the events in Caldwell County with officer down. Our response team responded, the suspect was located and they utilized the 800 mhz radios which worked very well. The 800mhz radios were also used in the manhunt on Tuesday, in which the suspects were not located, however, it is believed they stole a vehicle to facilitate their escape.

Pattie asked about an adapter/patchover to make the old radios compatible with the 800mhz radios. Russell stated that there was such a thing. Russell stated that VIPR tower was being installed on Barrett’s mountain which improve communications on the VIPR network in the area. Russell had Greg do a demonstration on how you can talk to anyone anywhere in the state. Greg called Raleigh to and showed how easily and clearly communications were using these radios.

4) Grants - Russell provided an update on the various grants that Emergency Management has received.

A) NIMS Training (\$8400) – We received both the NIMS Training and Train The Trainer Grant Funds. However, we signed the Train the Trainer Funds back to the State because we could not meet the requirements. The State has agreed to

have this type of training in this region so the trainers we have can further their capabilities. We are looking at having an Incident Management Team that would respond only to incidents inside the county. We need to be looking at the jobs that logistics, planning, finance and fire chief's jobs in an emergency and how the jobs work together as a whole.

- B) Exercise Grant (\$38,000)** – These funds will go towards
 - iv. Training Emergency Management, Valley Nursing, EMS, Health Department and the Schools in an effort to meet the various needs we know now need to be met..
 - v. Tabletop Exercise in 2009
 - vi. Full Scale Exercise in 2010
- C) Training Grant (\$2970)** – These funds will potentially go towards training an Incident Management Team. The main objective is that anyone can do the jobs i.e. be operations officer etc regardless of the incident.
- D) NCDA (\$108,000)** – These funds will go toward a Foot & Mouth Disease exercise, however, we will be in on the planning of this exercise instead of having to handle it short notice like the Avian Flu Drill.

Hazard Mitigation Plan Update- Russel wanted to make everyone aware that the update was due in June 2009. Requirements to update are quite lengthy and he is in negotiations to hire someone to help us. The last quote was for \$4,000.00 One of the requirements was to have public hearings so that the public can be involved. Russell made the LEPC the Hazard Mitigation Task Force. Russell needs the members to go to the county website and review the part of the current Hazard Mitigation Plan that pertains to them and make changes/suggestions to our office via email: rgreene@alexandercountync.gov or ckilby@alexandercountync.gov. Russell stated that the contractor, when chosen would probably send out questionnaires as a starting point. Russell is setting a goal for the January 31, 2009 to have the updated plan to the state for review, then it would go to FEMA for approval contingent on local approval. To access the Hazard Mitigation Plan online go to www.alexandercountync.gov choose Departments, choose Emergency Services and then choose Hazard Mitigation Plan. If anyone has problems, contact our office and we will assist you.

Other New Business – Russell stated that a potential exercise with Michael Barrick from Frye was also being considered.

Other

i.Meeting Schedule

- 1) Next Regular Sechudel Meeting : January 22, 2009
- 2) Potential Meeting in mid-December for the Hazard Mitigation Plan, in which case the next LEPC Meeting set for January 22, 2009 would be postponed.

ADJOURNMENT

There being no further business, Russell Greene moved to adjourn at 1:30 PM. Steve Icenhour motioned and Jeff Roseberry seconded.

Respectfully Submitted,

Cherry A. Kilby,
Emergency Services Administrative Assistant

Appendix Eight – Alexander County Comprehensive Plan Sections One and Six

These excerpts were taken from Alexander County Comprehensive Plan which can be found at: <http://www.alexandercountync.gov/pdf/AlexCompPlan-Final.pdf>.

A Profile of Alexander County

Alexander County, one of four counties that comprise the Hickory-Morganton-Lenoir Metropolitan Statistical Area (MSA), is located in the western Piedmont area of North Carolina. Bounded on the south by the Catawba River and on the north by the Brushy Mountains, Alexander County consists of 260 square miles of the rolling foothills of the Blue Ridge Mountains between Caldwell and Iredell Counties. Map 1, “*Alexander County*” depicts the County, Taylorsville, its public schools and Catawba Valley Community College Alexander Center. Alexander County and Taylorsville, its County seat, were formed in 1847 by a commission composed of one representative from the three neighboring counties of Caldwell, Wilkes and Iredell and three men from what is now the Town.

Demographics

The population of Alexander County grew over the past 15 years by nearly 40%, outstripping the growth of the Hickory-Morganton-Lenoir MSA, the state of North Carolina and the nation. In sheer numbers, however, this growth consisted on about 11,000 persons. What is significant here is the rate of growth and the impact such rapid growth has had on a small, mainly rural County. Table 1 displays this information.

TABLE OMITTED

Past population growth trends are commonly used as an indicator of future growth. Table 2 shows that Alexander County is projected to grow by nearly 34% percent from 35,898 persons in 2005 to an estimated 47,997 by 2030. During this same period, the number of households is expected to increase at a rate of 40%. Interestingly, the number of persons per household is likely to decrease over time, indicating a population likely to have smaller, single-person households and an older median age in the future. Both of these trends reflect larger patterns seen across the state and the nation. More and more seniors are living longer than in previous decades and often doing so at home.

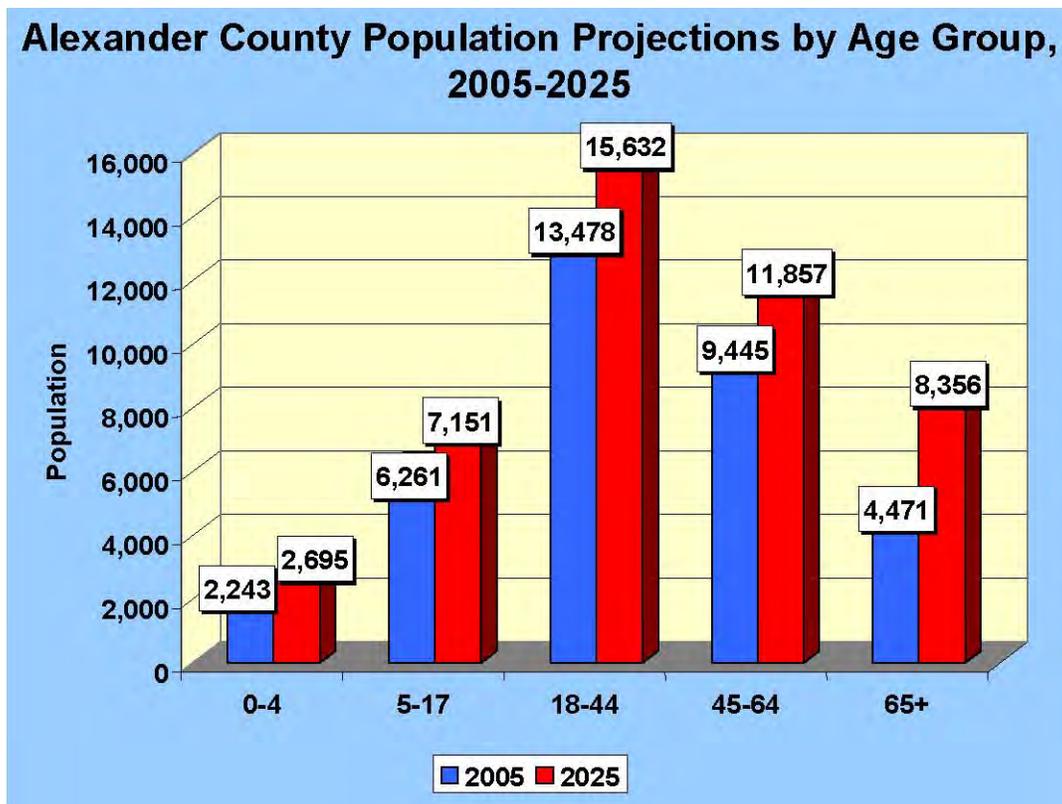
TABLE OMITTED

The population data in Tables 1 and 2 reflect the potential population growth across the region and in Alexander County. That growth in population, in turn, is mirrored in the number of dwelling units needed to house the increasing

population.

A recent study by data experts at the Western Piedmont Council of Governments revealed that an estimated 1,756 lots on over 1,890 acres of land have been initially approved for residential development in Alexander County. Most of these subdivisions are on Lake Hickory or in the vicinity of Taylorsville. In surrounding counties, new residential developments have also been noted across the region, most especially along the shores of the Catawba River and in higher elevations of neighboring counties. The potential economic and social impacts of these new residents on the County and the region will be huge in the coming decade, economic development experts predict.

Figure 1.



Source: NC Office of State Planning, 2007.

Figure 1 illustrates the age of Alexander's population in four main groups (pre-school, school age, working adults and older adults) in 2005 and projected for the year 2025. The percentage of Alexander's "school-age" students (persons 5-17 years old) is projected to increase by about 14% in the two decades from 2005 to 2025. Its population of "younger workers" (persons age 18 to 44) will increase about 16%, while the number of "experienced workers" (age 45-64) may increase by nearly 26%. These projected numbers of job-holders indicate an adequate

number of future workers if they continue to develop greater skill levels expected for the technological jobs of the coming decades. The “retirement” age (persons 65 years and older) is predicted to increase by 87% as the baby boomers move into their retirement years. This huge percentage increase may have serious implications for the County as Medicare and other health costs rise due to this increase in the percent of older adults.

Educational Attainment and Earning Potential

The income level and educational attainment of a community’s residents are often used as common indicators of how robust and dynamic a community will become. According to Table 3, Alexander County’s population over age twenty-five has nearly 69% high school graduates, higher than Burke or Caldwell Counties.

Slightly more than 9% of Alexander residents hold a Bachelors degree or higher, the lowest percent among persons over 25 in the Greater Hickory region. The level of educational attainment is expected to rise as older, less educated workers retire and are replaced by younger workers with more schooling. The trend toward a more highly educated workforce will continue as traditional jobs in furniture, textile and hosiery, which required less education, are replaced by jobs in the service and technical sectors with higher educational requirements of its workforce.

Table 3. Educational Attainment Levels.				
	% High School or Higher	County Ranking	% Bachelors Degree or Higher	County Ranking
Alexander	68.7	78	9.3	94
Burke	67.6	86	12.8	58
Caldwell	66.3	90	10.4	86
Catawba	74.8	43	17.0	28
NC	70.0	NA	22.5	NA
US	75.2	NA	24.4	NA
<i>(County ranking of 1 = highest educational attainment level.)</i>				

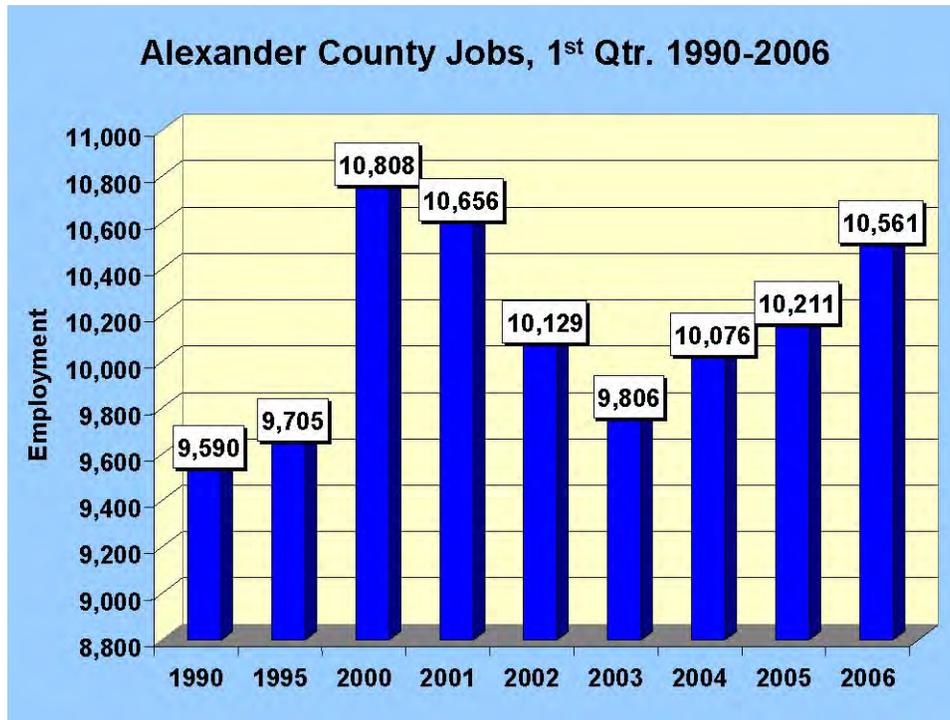
Source: US Census, 2000.

The Changing Employment Situation

The dramatic changes in the regional and local job market are clearly demonstrated in Figure 2. The gradual shift in the number of jobs in Alexander County dropped by 1,000 positions from 2000 to 2003, but bounced back

considerably to nearly the 2002 level by the first quarter of 2006.

Figure 2.



Source: NC ESC, 2006.

The changing Alexander County employment pattern is dramatically shown on page 7. *Figure 3: Alexander County Employment Distribution, 1990 - 2006* shows an economy and job market substantially impacted by outsourcing and factory closings in the manufacturing sector. The data here show that in 1990 the largest employment sector in Alexander County was manufacturing, with 62% of workers. This was followed by 23% employed in the service sector. In 2006 manufacturing jobs had declined 15% from 1990; conversely, service sector jobs increased by 8% during that same period. Retail and Wholesale Trade increased slightly from 8% in 1990 to 10% in 2006. The other main job sectors remained essentially the same in the period from 1990 to 2006.

As shown in Figure 4, regional employment patterns reflect the same trends observed in Alexander County in an even more significant fashion. Manufacturing employment dropped by 17% during this period, and service sector employment grew by 15% from 1990 to 2006. Other sectors in 2006 remained close to their share of employment patterns in 1990.

Table 4 shows that in 2005 the estimated median household income in Alexander County was slightly more than \$40,000, a figure that is higher than all Greater Hickory Metro counties and almost equal with the state estimated

household income. This figure is most likely due to higher income workers who commute to jobs in Iredell and Catawba Counties. Alexander County also has fewer persons in poverty than in other regional counties. Thirty-five percent of households had an income of less than \$25,000; nearly 8% of households had income above \$100,000.

FIGURES OMITTED

Table 4. Household Income, 2005.			
Place	2005 Estimated Median Household Income	% Of 2005 Households With Incomes Below \$25,000	% Of 2005 Household Incomes Over \$100,000
Alexander County	\$40,677	35.1	7.7
Burke County	\$32,963	36.9	6.0
Caldwell County	\$37,260	35.5	7.0
Catawba County	\$39,279	32.2	11.0
Hickory-Morganton-Lenoir MSA	\$37,391	34.4	8.5
North Carolina	\$40,729	30.6	12.1

Source: American Community Survey, US Census Bureau, 2005.

Racial and Ethnic Diversity

The ethnic makeup of Alexander County is displayed in Table 5. Alexander's population is substantially less diverse in all ethnic categories than two other Unifour counties. Alexander has fewer African-American or Hispanic residents than other counties across

Table 5. Race and Ethnicity, 2005.				
Place	White	Black	Asian/ Other	Hispanic (any race)
Alexander County	92.9%	5.3%	1.8%	3.4%
Burke County	88.5%	6.7%	4.8%	4.7%
Caldwell County	93.3%	5.4%	1.3%	3.7%
Catawba County	87.4%	8.3%	4.3%	8.1%
Hickory-Morganton-Lenoir MSA	89.5%	7.0%	3.5%	5.7%
North Carolina	74.0%	21.6%	4.4%	6.7%

Source: American Community Survey, US Census Bureau, 2005.

the region. The County's 5.3% African-American population is smaller than other regional counties, and Alexander has the second lowest percent of Hispanic residents. Catawba County is the area's most racially diverse county, but no county in the region comes close to matching the ethnic diversity of North Carolina, in the percent of either African-Americans or Latinos.

Land Use and Growth Management

Current Land Use

Land in Alexander County is mainly "residential" or "vacant" in its land use categories. Given the County's rural and agricultural history, these land use patterns are not surprising. Map 2, "*Alexander County Current Land Use*" displays types of land use across the County; a quick glance reveals the overwhelming amount of land either developed as residential or agricultural or allowed to remain vacant. Unlike other counties in the Hickory-Morganton-Lenoir MSA, Alexander is the only local county with a single municipality. Taylorsville, the County seat, is the center of its local government services, and its low population, estimated at fewer than 2,000 persons in 2006, also reflects the County's rural heritage.

The vast majority of land in Alexander County is devoted to residential uses. Of the nearly 160,800 acres in the County, 96% is occupied by residential uses or is vacant and could be used for residential purposes. From another point of view, only slightly more than 1,000 of the County's 24,300 land parcels are found in uses other than residential, mostly industrial or commercial usage. Table 6 displays this data.

Table 6.				
Current Alexander County Land Use by Parcels/Acres				
Land Use	Parcels	%	Acreage	%
Residential Improved (Parcels Less than 10 Acres)	15,965	66%	30,556	19%
Residential Vacant (Parcels Less than 10 Acres)	3,821	16%	8,777	6%
Residential Parcels Greater than 10 Acres	3,493	14%	116,406	72%
Non-Residential	1,022	4%	5,055	3%
Total	24,301	100%	160,794	100%

Source: Alexander County GIS, 2007, and WPCOG Data Center, 2007.

Non-residential Land Use

Like many rural counties, Alexander demonstrates a low percentage of parcels with non-residential uses, slightly over 1,000 parcels or 4% of the total parcels and nearly 5,100 acres or 3% of the County's total of 160,790 acres of land. Of

these 5,100 nonresidential acres, existing commercial uses occupy an estimated 1,700 acres and industrial use, which often needs larger tracts, an estimated 3,400 acres.

Agricultural uses occupy a significant percentage of the land over 10 acres and set aside for residential uses. In Table 6 these parcels/acres are included in the category describes as “Residential Parcels Greater than 10 Acres.” The NC Department of Agriculture estimates that 58,300 acres in Alexander County, or about one-half of the total residential acres over 10 acres, are being used for agricultural purposes. These uses include wood lands, farms and family homesteads, among other uses. Most of these 58,300 acres pay reduced County property taxes as bona fide farms, under an NC law which reduces the property taxes on farms used to produce agricultural, horticultural or forestry products.

Residential Land Use

As Table 6 suggests, these tracts larger than 10 acres are significant because many of them potentially could be subdivided into several smaller parcels for additional housing units. While about half of this land is devoted to agricultural uses and some may be unsuitable for residential uses, much of it has the potential to be sold and subdivided for residential uses. These larger land tracts (those over 10 acres) are found mainly in northern townships of Ellendale, Gwaltneys, Little River, Millers and Sugarloaf (see Table 7). In these County tax districts, over 80% of the residential parcels are found in tracts of 10 acres or larger, placing them in rural areas, less accessible to Taylorsville or commercial attractions in the Hickory area.

Table 7. Current Alexander Residential Land Use by Tax District				
Alexander County Tax Districts	Residential Improved (Parcels <10 Acres)	Residential Vacant (Parcels <10 Acres)	Residential (Parcels >10 Acres)	Non-Residential
Bethlehem	36%	11%	50%	4%
Ellendale	16%	5%	77%	3%
Gwaltneys	10%	4%	82%	4%
Little River	11%	4%	85%	1%
Millers	12%	2%	83%	3%
Sharpes	23%	5%	70%	1%
Sharpes II	28%	7%	55%	10%
Sugarloaf	12%	6%	82%	0%
Taylorsville	28%	8%	57%	6%
Wittenburg	29%	6%	64%	2%
Alexander County	19%	5%	72%	3%

Source: Alexander County Tax Office, 2006; WPCOG Data Center, 2007.

While the actual number of new housing units has increased slowly over the past decade, the County's population has grown at the fastest rate of any of the four counties in the region, as discussed earlier. In fact, the County's population grew by 39.6% from 1990 to 2005, while the region increased at a 20.3% rate. Looking ahead, experts predict the County's population will increase at a 33.6% pace from 2005 to 2030 and the region's population is likely to grow at about 22.0% during those same years. This projected population growth, in turn, will likely generate the need for additional single-family and multi-family residential units in coming years.

Table 8 shows County new residential building permit activity during 2007. Total single-family (site-built) units reached 162 while 102 permits for manufactured homes were issued. Across the region, planners have detected a similar pattern of decreasing numbers of manufactured home permits issued since the mid 1990s. Multi-family developments in Alexander County in 2007, which include apartments, condominiums and townhouses, were limited to three permit applications, one each in the northeast portion of the County (Census Tract 401), the Taylorsville area (Tract 404) and the Bethlehem community (Tract 407).

Table 8.					
Alexander County Building Permit Data, 2007					
Census Tract	Single-Family Permits	Multi-Family Permits	Mobile Home Permits	New Single-Family Construction Costs	New Multi-Family Construction Costs
401	8	1	10	\$1,601,390	\$68,020
402	26	0	16	4,819,360	-
403	11	0	11	2,210,650	-
404	22	1	13	4,170,600	450,060
405	21	0	32	4,251,859	-
406	24	0	13	6,136,940	-
407	50	1	7	12,059,941	6,136,940
TOTALS	162	3	102	\$35,250,740	\$6,655,020

Source: Alexander County Planning Department, 2008, and WPCOG Data Center, 2008.

Current Zoning Districts

As Map 3, "Alexander County Zoning" shows, the current County zoning areas reflect zoning districts that closely parallel existing land use patterns in most of the County. Two zoning districts allow for industrial land uses, a Heavy Industrial Zoning District and a Light Industrial District. These zoning districts are located mainly along NC 127 and NC 90 -- US 64 east of Taylorsville to the Iredell County line. Several parcels with this zoning designation are also located on NC 16 south of the Taylorsville town limits. A Highway-Commercial zoning district

has been established along NC 127 in the Bethlehem area, on NC 90 and US 64 east of Taylorsville and on NC 16 south of Town. The few parcels in the Neighborhood Business Zoning District are widely scattered across the County.

Of the three residential zoning districts established by the County Zoning Ordinance, the vast majority of land in the County is zoned in the Residential-Agricultural District. This zoning district allows site-built homes, manufactured housing (mobile homes) on single lots or in parks, and multi-family housing. Lot sizes vary from 12,000 to 30,000 square feet (one-third to two-thirds of an acre) depending on applicable watershed regulations and the availability of public/community water or sewer.

The R-20 Residential Zoning District allows single-family residences at a density (minimum lot size) that depends on whether public or community water or sewer is available. Most of the land zoned R-20 can be found south and west of Taylorsville and in the Bethlehem area, especially along Lake Hickory. A third residential zoning district (Residential-Single Family) allows for increased density (considerably smaller lots) in developments with both public water and sewer.

Future Commercial and Industrial Uses

Community residents, County staff and members of the Alexander County Comprehensive Plan Committee echoed the need for additional commercial and industrial locations in the County. The locations suggested for additional commercial and industrial locations are indicated on Map 4, *“Alexander County Future Land Use.”*

These locations propose general areas, not specific lots, where such development is most appropriate. The Committee’s proposal are intended to guide policy makers in decisions regarding future commercial and industrial growth and assist in rezoning decisions coming before the Planning and Zoning Commission and the Board of County Commissioners.

Potential locations are shown on Map 4 for additional commercial uses, mainly in the Bethlehem area along NC 127, on NC 16 north and south of Taylorsville and in the Millersville and Wittenburg areas. The Committee’s Land Use Recommendations propose that the Planning and Zoning Commission consider adding an Office and Institutional Zoning District to compliment the existing two commercial zoning districts and serve as a transition area between residential and commercial uses. This “O & I” District is proposed for locations south of Taylorsville on NC 16 near existing medical and banking offices. The proposed areas for more industrial locations are mainly near existing industrial plants along US 64 east to the Iredell County line and NC 90 east from Taylorsville.

Future Residential Land Uses

Future policy makers in Alexander County should think about the amount of land currently zoned residential, especially in the RA-20 Zoning District and used primarily for agriculture. These parcels represent land possible to be subdivided into residential uses in the coming decades. While market forces basically drive these decisions, existing data provides some indication of development pressures across the region and western North Carolina.

A recent survey by the Western Piedmont Council of Governments Data Center calculated the number of subdivisions proposed in the 12 Future Forward counties, which stretch from I-77 west to the Black Mountains and north from Lincoln and Rutherford Counties to the Virginia line. As of late 2006, the Hickory MSA approved preliminary plats for over 15,000 lots in the Unifour counties of Alexander, Burke, Caldwell and Catawba. Nearly all of these proposed subdivisions were along the Catawba River or in the mountain and foothill areas of these counties.

Of these 15,000 lots, 1,756 lots in Alexander County were approved for development in the near future. While approval of a preliminary plat does not necessarily mean a subdivision will actually be developed, it does suggest likely subdivision expansion within a few years. Importantly, any significant growth of large residential subdivisions will depend on the availability of public sewer. In Alexander County, these subdivisions are proposed along the Catawba River, mostly on Lake Hickory, and around Taylorsville. Four subdivisions are also proposed for the southeast portion of the County near the Iredell County line. The current crisis in the mortgage industry, however, seems certain to delay plans of some developers for building approved subdivisions, not only in Alexander but across neighboring counties as well.

One of the recurring themes from the four community meetings held during the Comprehensive Plan process was the desire to preserve Alexander County's rural landscape and the values that accompany a quieter lifestyle. Since nearly all land areas in Alexander allow some type of residential development, the Committee examined several planning techniques to allow growth management options to accomplish these goals. These include allowing increased density in the Bethlehem area and near Taylorsville where public water and sewer service are available, encouraging "cluster subdivisions" which preserve open space and enhance the County's rural character, and require landscaped buffers along thoroughfares and around the perimeter of subdivisions with 25 lots or more. "Cluster subdivisions" can be defined as residential developments in which housing units are built on smaller lots, leaving a substantial percentage of land as permanent open space for use by residents.

The Committee also recommends that the County revise its manufactured home regulations to those standards in effect on July 1, 1999, which required that doublewides and singlewides in the County be constructed to HUD standards. It also suggests that the Planning and Zoning Commission set a reasonable

timetable for bringing homes in Manufactured Home Parks into conformity with federal Housing and Urban Development (HUD) standards.

Open Space, Mountain Development and Potential Park Locations

Other ways to preserve open space and maintain the attractive rural quality of Alexander County include encouraging the development of low-density subdivisions of 10 lots or more with a minimum lot size of 3 acres, establishing standards on residential development above 1,500 feet in elevation to preserve views and open space and prevent the spread of wildfires, and developing standards on steep slopes in the County, those greater than 30%, to prevent erosion and dangerous landslides. The Planning and Zoning Commission and professional planning staff will be assigned the task of creating the appropriate language for these standards to be incorporated as revisions to the Zoning Ordinance and Subdivision Regulations.

Other locations across the County have been designated as “open space” by the Committee (see Map 4, “*Alexander County Future Land Use*,”) as areas for potential passive recreation parks. These areas could perhaps be managed cooperatively by Alexander County and other entities which own or control the land. These include Joe and Little Joe Mountains, Rocky Face Mountain and Asbury Mountain, among others.

Goal Statements: Land Use

- Develop progressive and sound land use policies and strategies to ensure that Alexander County grows fairly, effectively and efficiently.
- Adopt sensible, straightforward zoning standards and procedures that are easily understood by developers and the general public.
- Foster distinctive, attractive neighborhoods with a strong sense of place.
- Preserve open space, natural beauty and critical environmental areas in the County.
- Adopt design standards to ensure that new development and redevelopment are assets to the surrounding community and Alexander County.
- Develop walkable, aesthetically-pleasing communities.
- Encourage community and stakeholder collaboration in development decisions.
- Protect the distinctive residential character of the County’s neighborhoods from the encroachment of inappropriate non-residential development.
- Encourage industrial development in appropriate areas with

- adequate infrastructure and access to major highways.
- Provide guidelines to developers on increasing landscaping and open space in new developments.
- Develop residential design qualities that do not negatively impact air quality, including pedestrian options such as sidewalks, walking trails and bike paths.
- Promote affordable housing for people in all stages of life.

Recommendations:

Land Use

Residential Uses

- Develop guidelines encouraging residential development of increased density (parcels of one-half acre or less) where water and sewer service is available, for example on the outskirts of Taylorsville and in Bethlehem.
- Encourage the “cluster subdivision” concept to preserve open space and enhance the rural character of the County.
- Require landscaped buffers for large subdivisions (25 lots or more) to be a minimum of 15 feet wide along thoroughfares and recommend a similar landscaped buffer around the perimeter of these larger subdivisions to help preserve the County’s rural character.
- Recommend that Alexander County revise its manufactured home regulations to those standards effective July 1, 1999, which would require that doublewides and singlewides already in Alexander County and sold for re-use within Alexander County be constructed to HUD standards.
- Request the Planning and Zoning Commission to set a reasonable timeline for bringing homes in Manufactured Home Parks into conformity with HUD standards.

Open Space

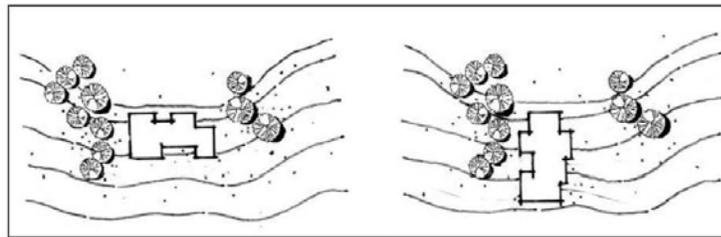
- Encourage subdivisions (10 lots or more) of very low density development (with a minimum lot size of 3 acres) as an effective way of preserving open space and the County’s rural character.
- To preserve views and open space in the County and prevent the spread of wildfires, residential development on parcels above 1,500 feet in elevation should be managed by limitations such as:
- Structures should be limited to 35 feet in height above the existing ground level.

- Structures must have a 30-foot cleared space or radius around them to prevent damage or destruction by wildfire.
- Limit the area to be disturbed for development.
- Structures on such sites should be located to minimize visual impact and preserve trees.
- Roof and building colors should be limited to earth tones (browns, grays, greens).
- Lighting should not project into the sky.

Steep Slopes

To preserve views and steep slopes in the County, prevent erosion and dangerous landslides, development on slopes greater than 30% should be managed by limitations such as:

- Structures should be limited to 35 feet in height above the existing ground level.
- Limit the area of disturbance for development sites.
- Allow maximum density of 1 home per 5 acres. Waterfront properties are excluded from the density restrictions.
- Require large percentages of open space for subdivisions.
- Buildings should be oriented along natural topography (Figure 5).
- Construction should be stepped into the topography (Figure 6 and 7).
- Discourage large areas of cut and fill.
- Roads and drives should follow the natural contours when possible (Figure 8).



Do this

Don't do this

Figure 5.

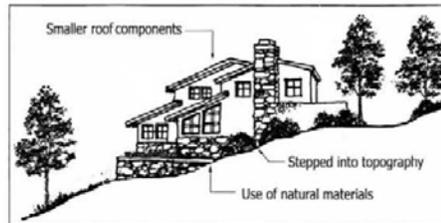
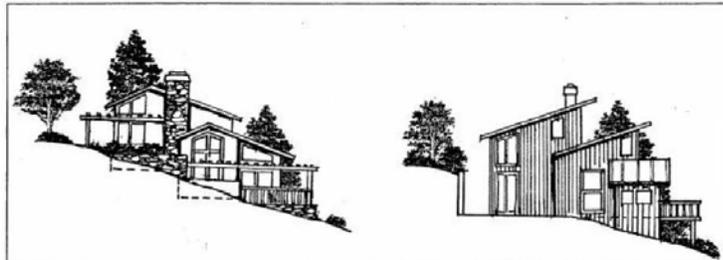


Figure 6.



Do this

Don't do this

Figure 7.

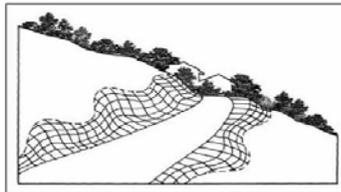


Figure 8.

Commercial Uses

- Establish an *Office and Institutional* Zoning District separate from the current Highway Business and Neighborhood Business Zoning Districts. The Office and Institutional District use allows services to the public that typically involve less traffic and fewer workers, such as legal or health care services, offices, and publicly-owned facilities such as school administrative offices or parks. The “O & I” district provides a transition between residential and non-residential uses.
- Pursue the concept of “commercial nodes” which propose appropriate locations for future commercial development (see *Future Land Use Map*). Current requirements for Highway Business, Neighborhood Business or the proposed Office and

- Institutional Zoning Districts would apply to commercial nodes.
- Encourage more attractive commercial buildings on major thoroughfares by proposing brick or masonry fronts and designs which match the standards of buildings in the community.
- Require landscaping along road frontage and within parking areas of commercial uses. Consider planting trees to soften building impacts and provide shade in parking areas.
- Increase existing buffer requirements to screen commercial buildings from adjacent residential uses. All loading, storage and maintenance areas should also be screened from adjacent residential areas.
- Expand the uses permitted for home occupations to allow rural entrepreneurs to develop businesses at their residences. When placing limitations on “rural home occupations,” the Planning and Zoning Commission should consider issues such as:
 - Prohibiting these uses in existing subdivisions;
 - Limiting parking (number of spaces and where allowed) and the number of non-residents employed in the business;
 - Describing the minimum size of the parcel, or the footprint of the residence or accessory building (s);
 - Allowing limited retail sales within “rural home occupation” district;
 - Limiting the placement of vehicles or machinery, and materials used in the business, such as mulch, sand or gravel;
 - Allowing the business use of accessory buildings;
 - Restricting the placement and size of signs.

Industrial Uses

- Additional sites for industrial use, publically financed and managed by local governments, should be developed in areas with adequate water, sewer and transportation (see *Future Land Use Map*).
- Require landscaping along road frontage and within parking areas of industrial uses. Consider planting trees to soften building impacts and provide shade in parking areas.
- Increase existing buffer requirements to screen industrial buildings from adjacent residential uses. All loading, storage and maintenance areas should also be screened from adjacent residential areas.
- Incentives should be pursued to redevelop existing, vacant industrial buildings. Examine grant opportunities, such as federal funding for brownfield mitigation, to assist these efforts.

Appendix Nine – Public Notices

Publisher's Certificate

North Carolina
Alexander County:

I, Walter Lee Sharpe, Publisher of *The Taylorsville Times*, a weekly newspaper published at Taylorsville, Alexander County, North Carolina, being duly sworn says, that the attached notice was duly published in said paper for 1 weeks, beginning with the issue dated the 29 day of October, 2008.

Signed Walter Lee Sharpe, Publisher
Date 11-5 2008.

RECEIVED NOV 12 2008

Public Notice

The public will hereby take notice that the Alexander County Local Emergency Planning Committee will meet on October 30, 2008, at 11:30 a.m. at the CVCC Alexander Campus room 103. In addition to regular business, the committee will begin the process of updating the Local Hazard Mitigation Plan. Members of the public are invited to attend and offer comments on the mitigation plan update. The current plan can be viewed on the County website at www.alexandercountync.gov Under Emergency Services.

Certificate

RECEIVED DEC 05 2008

North Carolina
Alexander County:

I, Walter Lee Sharpe, Publisher of *The Taylorsville Times*, a weekly newspaper published at Taylorsville, Alexander County, North Carolina, being duly sworn says, that the attached notice was duly published in said paper for 1 weeks, beginning with the issue dated the 26 day of November, 2008.

Signed Walter Lee Sharpe, Publisher
Date 12-3 2008

Public Notice

The public will hereby take notice that the Alexander County Board of Commissioners will hold a public hearing at the regular scheduled Commissioners meeting on December 1, 2008 to be held at 6 p.m. in Room 103 of CVCC-Alexander Campus. The purpose of the hearing is to receive public comment in relation to the update of the Local Hazard Mitigation Plan. Members of the public are invited to attend and offer comments on the mitigation plan update. The current plan can be viewed on the county website at www.alexandercountync.gov

#171905
12/12/08

Publisher's Certificate

North Carolina
Alexander County:

I, **Walter Lee Sharpe**, Publisher of *The Taylorsville Times*, a weekly newspaper published at Taylorsville, Alexander County, North Carolina, being duly sworn says, that the attached notice was duly published in said paper for 1 week^s, beginning with the issue dated the 28 day of January, 1, 2009.

Signed Walter Lee Sharpe, Publisher
Date 2-6, 2009
Fee \$ 28.50

Subscribed and sworn before me this 6th day of February, 2009.

Brenda S. Wike
My Commission Expires 10/25/09



Notice

The public will hereby take notice that the Town of Taylorsville Council will hold a public hearing at their regularly scheduled meeting on February 3, 2009, at 5:30 p.m. at Town Hall. In addition to regular business, the Town Council will receive public comment in relation to the update of the local Hazard Mitigation Plan. The current plan can be viewed on the Alexander County website at www.alexandercountync.gov under Emergency Services. If you are unable to access the web; a copy can be viewed at the Emergency Services office, the County Administration Building and Town Hall. All comments and questions prior to the meeting shall be directed to the Emergency Services Director, 621 Lilledoun Rd Taylorsville, NC 28681 or phone (828) 632-9336 or fax (828) 632-1707. jan28-09c

RECEIVED FEB 12 2009

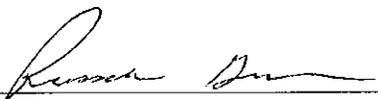
**ALEXANDER COUNTY
HAZARD MITIGATION CERTIFICATIONS**

I, Russell Greene, Emergency Management Director for the County of Alexander, State of North Carolina, do hereby certify that public involvement and input regarding the Hazard Mitigation Plan was carried out in accordance with the plan and in accordance with local policy and ordinance.

I further certify that plan briefings of Board and Council members were published and the was public invited, per the "Open Meetings" laws of North Carolina. I further certify that agendas of regular meetings of Boards and Councils in Alexander County and the respective municipalities were published prior to consideration for approval of the Hazard Mitigation Plan. I further certify that members of the public served on the Hazard Mitigation Task Force / LEPC for Alexander County and that such citizens had ample opportunity for input in plan development. I further certify that copies of Board and or Council meeting minutes, kept in accordance with North Carolina law, regarding approval of the Hazard Mitigation Plan, are on file and available for members of the public, state and federal agencies. Inspection may be made upon reasonable request to the respective jurisdictional authority. I further certify that a draft of the Hazard Mitigation Plan was placed upon website <http://www.eplanonline.com/alexander> for staff and public inspection and comment from June 16, 2003 until July 16, 2003.

This certification is in accordance with provisions of the Disaster Mitigation Act 2000 (44 CFR 201.6) and NCGS 62A.

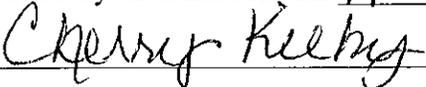
This 17 day of September, 2009.



North Carolina, Alexander County

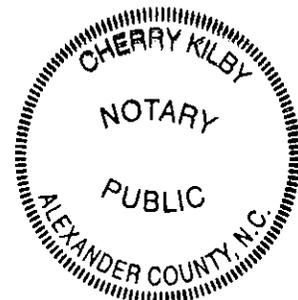
I, Cherry Kilby, a Notary Public for Alexander County, NC, do hereby certify that Russell Greene appeared before me this day and acknowledged signing the foregoing instrument.

Witness my hand and seal this 17th day of September 2009



Notary Public

My commission expires May 20, 2014





**County of Alexander
State of North Carolina**

RESOLUTION

WHEREAS, the Disaster Mitigation Act of 2000, the Code of Federal Regulations and North Carolina General Statutes require the update of our local Hazard Mitigation Plan and;

WHEREAS, a Hazard Mitigation Plan has been reviewed by Alexander County and the Town of Taylorsville and reviewed by members of this Board, staff and the public and;

WHEREAS, the Alexander County Hazard Mitigation Task Force recommends the approval of the Hazard Mitigation Plan and;

WHEREAS, the State of North Carolina, Division of Emergency Management has conducted a review of the Hazard Mitigation Plan;

NOW THEREFORE, we the Board of Commissioners hereby approve the Alexander County Hazard Mitigation Plan as submitted this 14th day of September, 2009.

Darrell Robertson, Chairman, Alexander County Board of Commissioners

Jaime Starnes, Clerk to the Board

Town of Taylorsville Adoption Resolution

**Town of Taylorsville
County of Alexander
State of North Carolina**

RESOLUTION

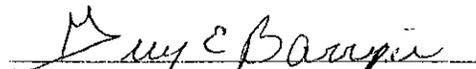
WHEREAS, the Disaster Mitigation Act of 2000, the Code of Federal Regulations and North Carolina General Statutes require the update of our local Hazard Mitigation Plan and;

WHEREAS, a Hazard Mitigation Plan has been reviewed by Alexander County and the Town of Taylorsville and reviewed by members of this Council, staff and the public and;

WHEREAS, the Alexander County Hazard Mitigation Task Force recommends the approval of the Hazard Mitigation Plan and;

WHEREAS, the State of North Carolina, Division of Emergency Management has conducted a review of the Hazard Mitigation Plan;

NOW THEREFORE, we the Town Council hereby approve the Alexander County Hazard Mitigation Plan as submitted this 1st day of September, 2009.



Guy Barriger, Mayor, Town of Taylorsville



Yolanda Prince, Town Clerk

