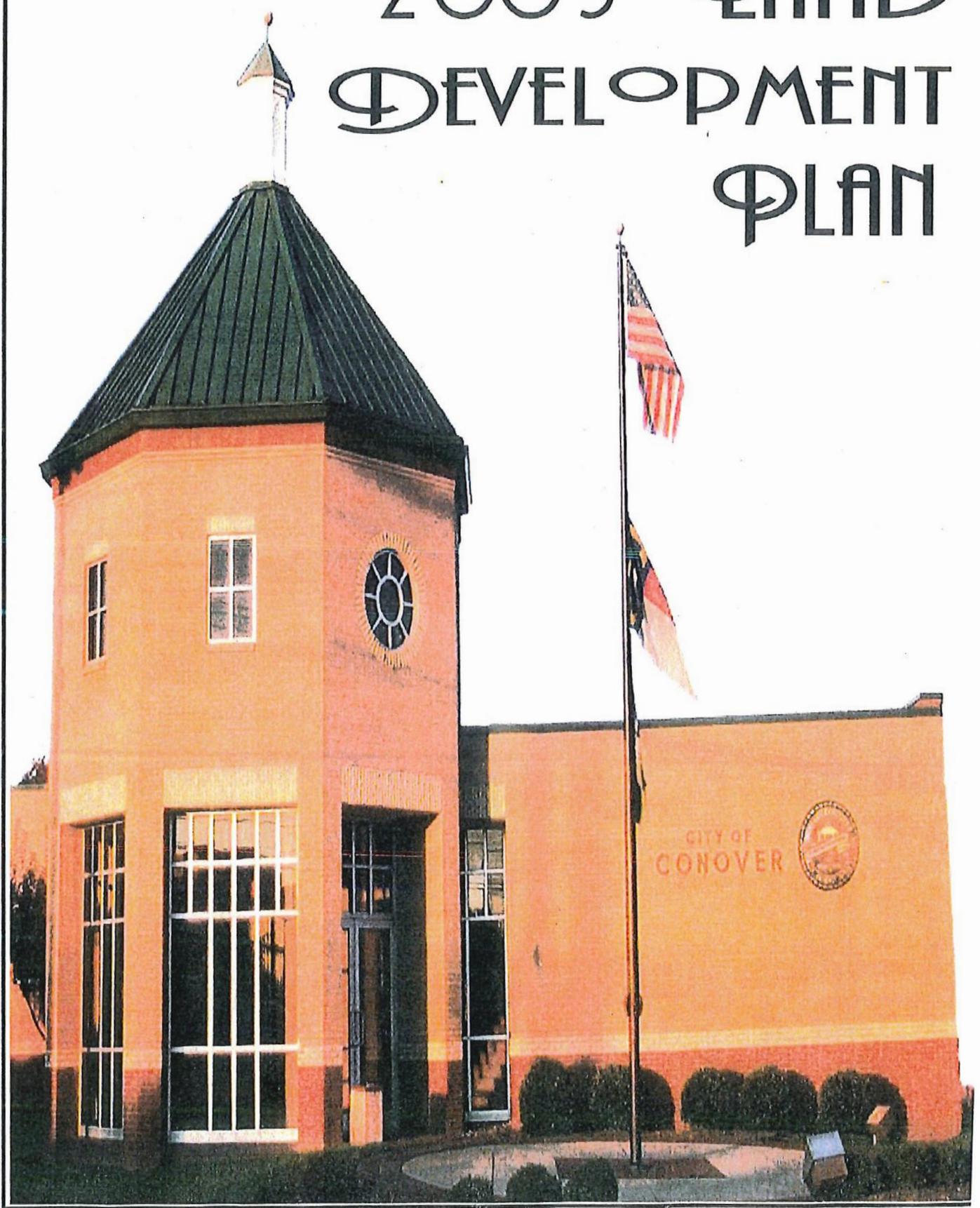


2003 LAND DEVELOPMENT PLAN



2003 Land Development Plan

Conover, North Carolina

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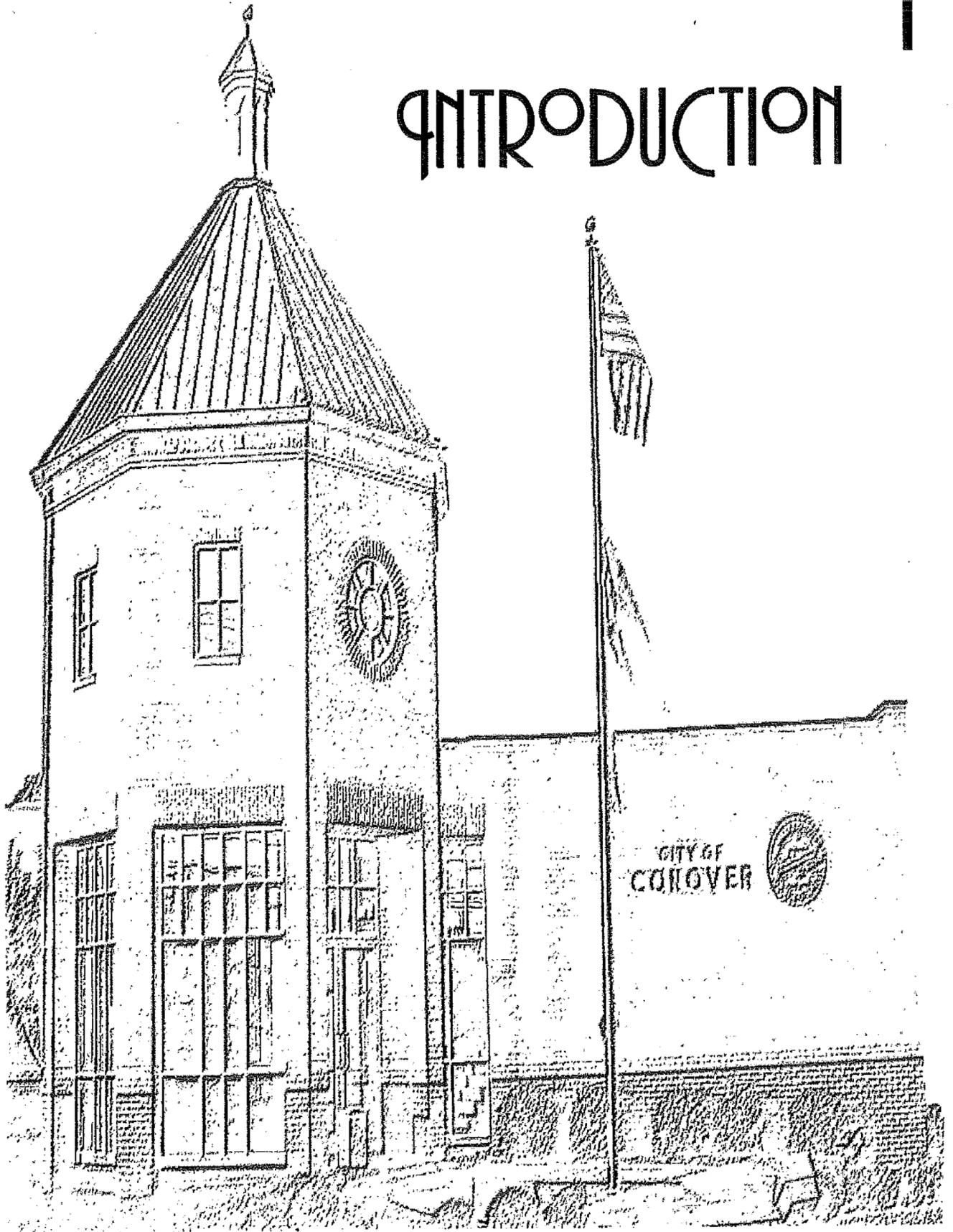
2003 Land Development Plan

Conover, North Carolina

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INTRODUCTION



Chapter One: Introduction

Introduction and Purpose

The last comprehensive land development plan for the City of Conover was written and adopted in 1992. This plan was intended to provide guidance and controlled growth for the city resulting from an expansion of the city limits by 135% and new changes the city had undergone since the last plan was adopted in 1978. Recognizing the need to evaluate prospective growth patterns and current issues facing Conover, the city wishes to revisit its proposals and plans in a ten-year increment. This new plan will set forth the City of Conover's goals and objectives for the next ten years. In so doing, this plan will not only explain in detail the current conditions of the city, but it will also describe prospective plans for the future and include accompanying visual descriptions of this proposed growth.

The 2003 Land Development Plan is an effort to reinforce and improve the community atmosphere of Conover, as well as continue the high level of public service administration. Increased automobile usage has merited that this plan also address alternate means of transportation available, which will inherently help create the feeling of "community." As employment and shopping opportunities are developed around neighborhoods, automobile usage will become an option, not a necessity. Also, as a spin-off to the environmental impacts that decreased automobile usage will have, just as important are the environmental improvements that will result from the preservation of open space, another goal of this plan.

As the community continues to grow and change, this new plan will serve as a policy guide for the public officials who make overall policy and day-to-day land use decisions.

The last ten years have been a period of extensive industrial growth accompanied by an immense addition of residential units to the city. There has been an array of businesses, institutional facilities, planned unit developments, and residential homes built and improved upon in the last decade. In accordance with providing the best possible service to the citizens of Conover, the city recognizes the need to address these changes and create future plans that will improve the city's ability to accommodate future growth.

Although the 2003 Land Development Plan for the City of Conover is officially adopted as a public document, it is not a development ordinance, but rather serves as a foundation and guide for the establishment or revision of the City's Code of Ordinances. Whereas some planning tools are quite specific in nature (i.e.- zoning, subdivision, and floodplain ordinances), this tool is general and includes broad recommendations for development concepts and growth strategies for the next ten years. As with the 1992 Plan, the 2003 Plan is intended to serve as a dynamic instrument based on sound planning principles and practices, adopted with the underlying notion that the plan is only a guide. New growth, new services, and changing priorities may mandate that the plan be altered. Periodic review and revision of this plan is recommended and encouraged to ensure its long-term effectiveness for the community. Economic issues, national and state mandates, and environmental factors can all drastically affect these predictions. Any alterations to the plan will have direct impacts on the residents of Conover; thus their input regarding changes is necessary to insure continued public support for the plan. The City of Conover deems it necessary to take a proactive approach to growth and development in order to ensure an effective and efficient approach to governance.

Methodology

The 1992 Land Development Plan was written from a standpoint of forecasting for the next ten years. This represented good foresight, for the City of Conover has changed dramatically, and such a plan would no longer serve a proper function. In the last ten years, new businesses, apartment complexes, schools, and churches have rendered the old plan dated. In addition to new development, the city has encouraged voluntary and municipal-initiated annexations, which have incorporated more developable land.

Developing a comprehensive plan, such as this one, is a lengthy and time-consuming process. However, the advantages of a municipality adopting such a guideline far outweigh any type of inconvenience. The 2003 update process began in the summer of 2000 with information gathering, including a land use survey, planning board workshops, small area plans developed for proposed development, as well as the most important aspect, citizen and community workshops. In 2000, a citizen survey was conducted that allowed citizens to not only rank items by importance, such as commercial development and community appearance, but it also let them write comments on specific areas that they liked or disliked and why. From this survey, the inputs were analyzed and incorporated into the 2003 Land Development goals. The “dislikes,” such as lack of bike lanes and dangerous intersections, were considered as much as the “likes,” such as easy access to main roads, “small town atmosphere,” and localized industrial development. Several small area plans, covering NC 16 North, North Conover, Thornburg Dr. / US70, the Loop area, Five Points, and Lyle Haven, have been completed and incorporated into the overall plan, though more broad-scoped plans will not. Conover cooperated with Catawba County in the 2002 St. Stephens / Oxford small area plan. Its involvement in this process was essential to Conover’s planning abilities since this area borders the city on the north. The year 2001 involved a review and analysis of the 1992 Land Development Plan, including its successes and problems. Meetings with citizens, business leaders, planning board members, and council members gave insight as to different directions the city should take. The final draft was written in the fall of 2002, approved in January 2003, with the final adoption in July 2003.

The 2003 Land Development Plan is designed to be easily used and readily understandable. Technical jargon is used only when necessary so that every citizen can comprehend what is proposed to take place within his or her community. One main focus of this Land Development Plan is to foster an environment of community in which the ideals of “city” are seen as more valuable than those of “property.” We as citizens do not exist in isolation, nor should we for optimal benefit. Only by understanding and respecting the inescapable fact that we must invest, build, and develop according to the principle of “community” will we improve the sustainability of Conover.

This document is written in general terms and is to be used as a guide. The overall plan is conceptual and is not intended to mandate the exact development pattern. It is also a summary of detailed site-specific plans and is not intended to duplicate that information. For detailed information, one should refer to the specific plan documents. These documents are referenced throughout the Plan. However, the Plan does expand on those existing detailed documents as well as explains how they relate and interact with one another.

Furthermore, this Plan is meant to cover all geographical areas of the City of Conover and its environs, as well as all municipal community functions that have a relationship with the physical development. The 2003 Land Development Plan links community functions, needs, and locations on a policy level. Through this coordinated effort, responsibilities can be identified and carried out in an appropriate manner by the individual municipal departments working together towards commonly identified goals. This is the keystone of the 2003 Land Development Plan: *It is written to be utilized and implemented.*

Primary Issues and Principles to be Addressed

While some of the issues and principles that are to be addressed by this Land Development Plan are very similar to those from the 1992 Plan, there are also many changes that have merited new objectives. In desiring to maintain the economic vitality and versatility that has come to characterize Conover, the city wishes to continue its continual focus on maintaining and improving necessary infrastructure capabilities, such as adequate water and wastewater treatment capacities. Only by ensuring the necessary facilities are available will new businesses, industries, and residents be interested in relocating to the City.

The City of Conover, while wanting to continue expanded growth, must ensure that the development is not occurring simply for the sake of development. While an increased tax base will provide immediate financial benefits for the city, consequences such as less open space, suburban sprawl, and land degradation must be considered. A dominating principle in the 2003 Plan is steering development in such a way so that it creates a sense of community and interaction, not isolation and separation. We want to create neighborhoods that are reflective of the socio-economic and cultural diversity that characterize the citizens. By encouraging mixed-use districts where different housing types and commercial businesses co-function side by side, we will experience numerous benefits. For example, shopping will no longer require automobile usage, which will in turn improve the atmospheric quality and physical wellness of the citizens.

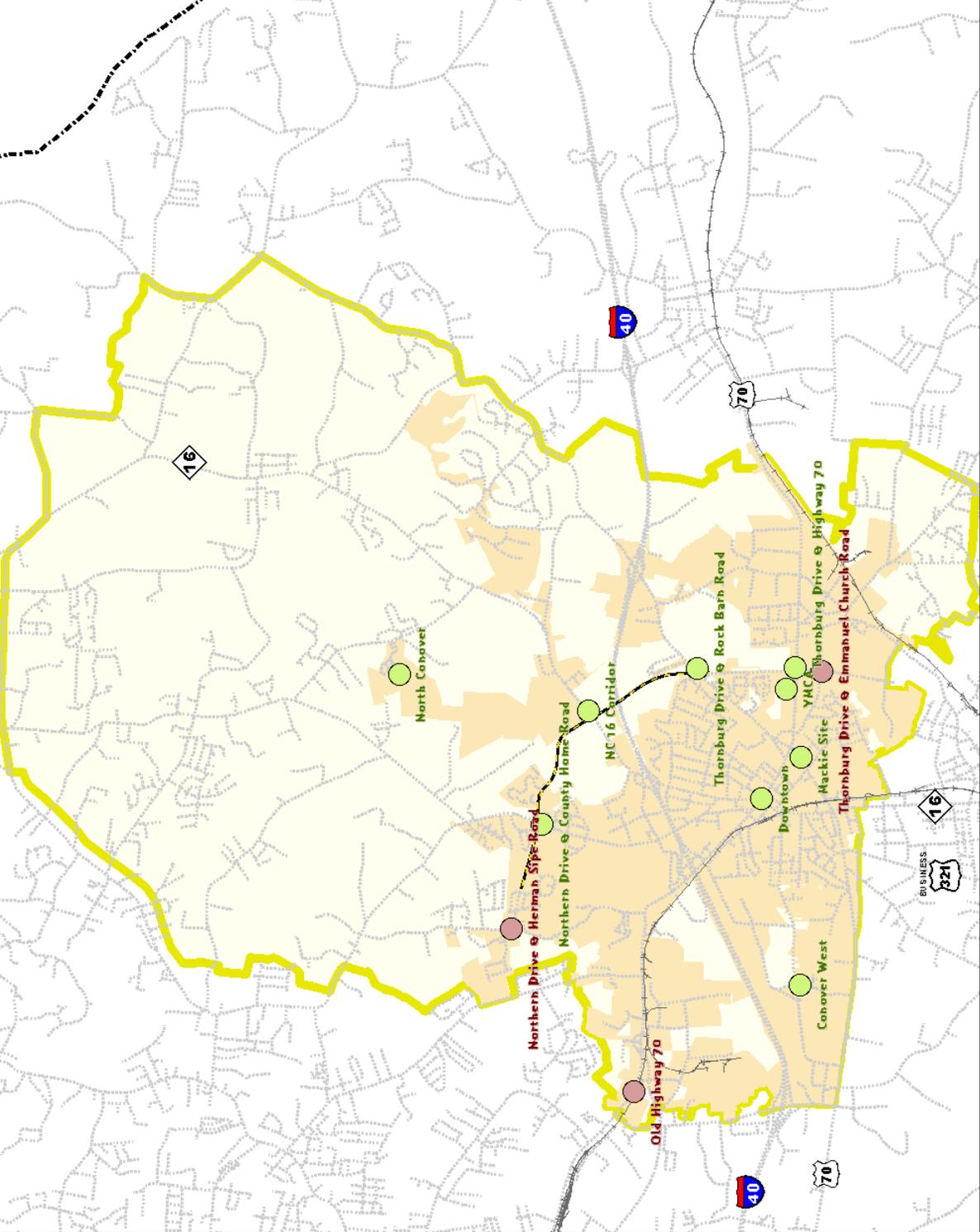
Another goal of the 2003 Plan is to ensure safe movement and decrease congestion along streets. As will be discussed in the transportation section of existing conditions, actions are currently being taken to fulfill this goal. Providing multi-modal access to various parts of the city and improving the safety of neighborhood streets will be an important goal for the next ten years and beyond.

City of Conover
2002 Land Development Plan
Small Area Plans

Legend

- Streets
- City limits 2002
- Planning area
- Plan Complete/In Progress
- Plan Recommended
- Northern Drive (under construction)
- Railroad

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Goals and Principles of the 2003 Land Development Plan

REINFORCE AND IMPROVE THE QUALITY OF LIFE IN CONOVER

Rezone properties where the existing zoning is incompatible with the surrounding development

Merge codes – combine the Conventional and Traditional portions of the zoning code and increase graphics for better understanding.

Examine possible areas for Historic Districts.

Create an abandoned / vacant building and property policy.

Encourage varied lot sizes in all developments so they become vibrant neighborhoods.

Improve and reinforce appearance and building standards.

PROVIDE ESSENTIAL PUBLIC SERVICES AND INFRASTRUCTURE WITH CAPACITY TO ACCOMMODATE GROWTH

Ensure that adequate infrastructure and services are available concurrently with new development.

IMPROVE ALTERNATE MEANS OF TRANSPORTATION SUCH AS SIDEWALKS, BIKEPATHS, AND ENHANCED BUS SERVICE

Promote transportation improvements such as turn lanes, connectivity, sidewalks, bikepaths, four-way stops, walking trails, deceleration lanes and emergency vehicle access.

Development design guidelines so that streets, buildings, public spaces, parks and uses are connected and work together.

ENSURE ACCESSIBLE OPEN SPACE

Establish Open Space Plan – ample and open access to floodplains as parkways/greenways, neighborhood parks, linkages, maintenance and improvement – build a “green infrastructure”:

PURSUE AND MAINTAIN ECONOMIC VITALITY

Evaluate properties throughout the city and encourage infill development projects.

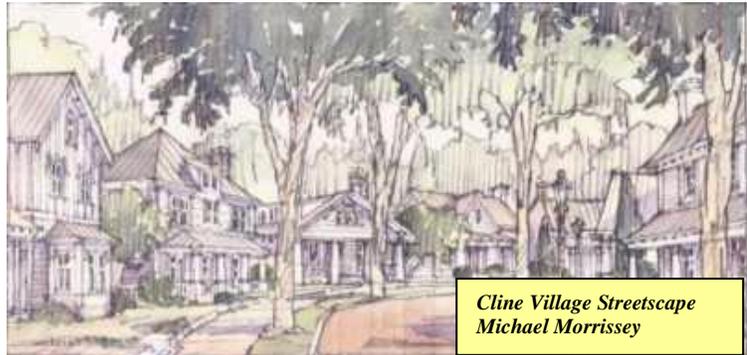
Identify and create neighborhood or specific area plans throughout the City.

Provide Economic Development information and assistance to recruit and retain viable businesses and industrial development.

Understanding Conventional Development versus Traditional Development

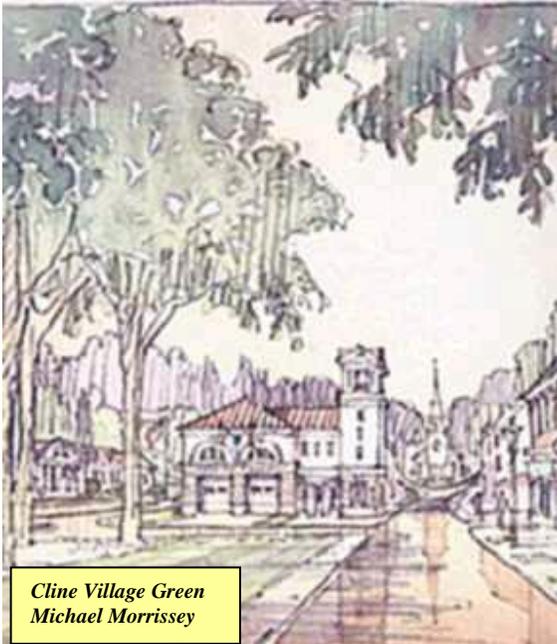
Most all of the issues Conover hopes to address in the next ten years directly or indirectly relate to the notion of “traditional” development, as opposed to conventional. While there is no exact definition for traditional development, there are numerous characteristics that are associated with it. For example, mixed use districts, public

transportation, open space preservation, multiple connections, and the creation of a true sense of “community” are all aspects of traditional development, sometimes referred to as “new urbanism.” The conventional notion of single-use zoning or mono-cultural isolated



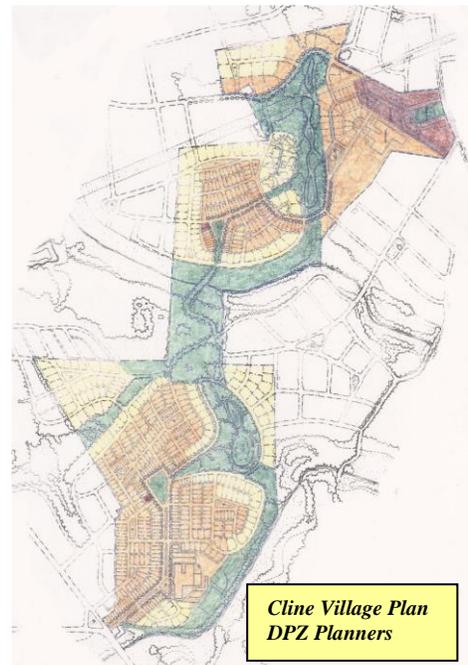
Cline Village Streetscape
Michael Morrissey

developments, called “sprawl” is viewed as random development with disconnected highway strip malls, single use subdivisions and heavy dependence on automobiles due to inadequate accessibility. This pattern concentrates and increases traffic on certain streets, which causes street congestion and fractures the local community. Traditional development encourages a blend of commercial, institutional, and various types of residential development. By building offices and homes near restaurants and businesses, walking, instead of driving, is encouraged, convenience is maximized, traffic congestion is decreased, and citizens feel more connected with their community.



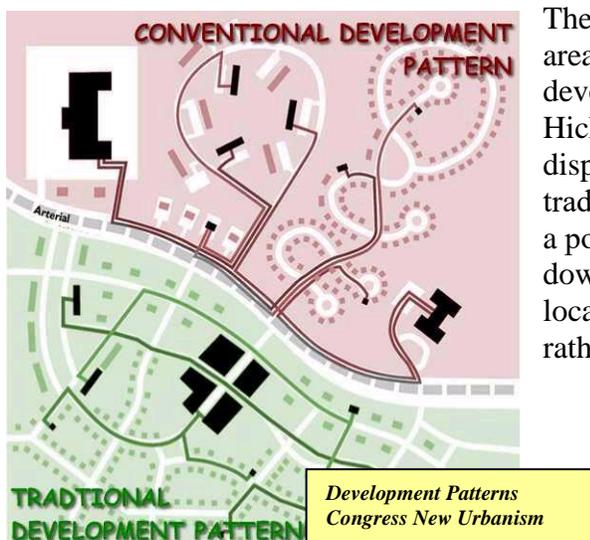
Cline Village Green
Michael Morrissey

To some extent, Conover has implemented some strategies associated with traditional development. For example, Cline Village is an excellent example of a traditional neighborhood. With Lyle Creek Elementary as its focal point, and a planned variety of housing types, this development exemplifies tradition. Also, the large tract of land at the corner of NC16 and 10th Street is being planned as a mixed-use district incorporating varied land uses. In addition, by supporting the Piedmont Wagon Transit System, the City of Conover encourages citizens to utilize the public transportation system.



Cline Village Plan
DPZ Planners

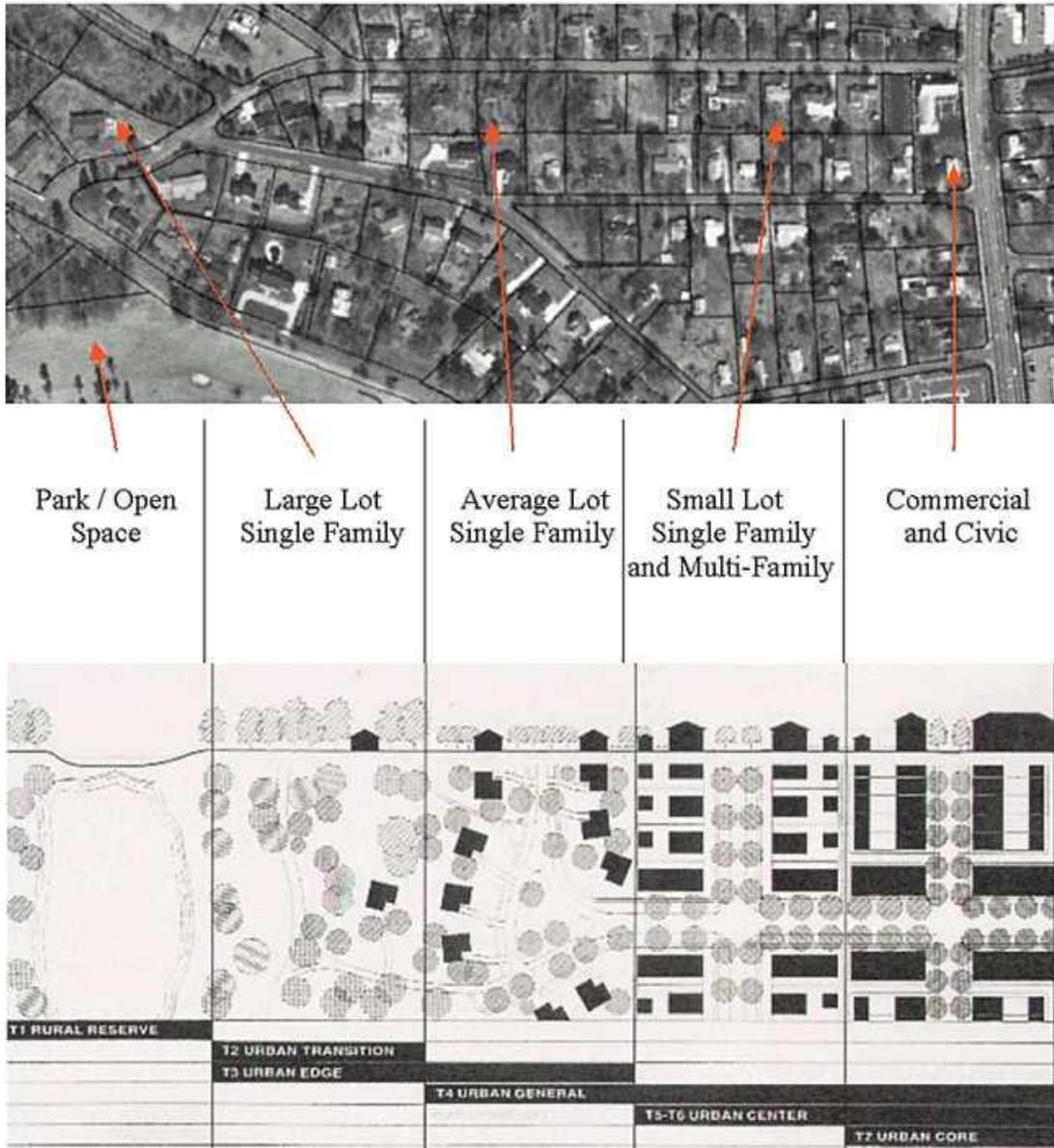
Another way in which Conover is preparing for the expansion of traditional development designs has been the creation of traditional development zoning districts in addition to the standard zoning. The six created districts are open space, neighborhood residential, neighborhood center, mixed use, campus office and institutional, and corridor commercial. By regulating design standards in these districts, as well as those of conventional zoning, the city has more input as to the final product. Though traditional development is more than simply looking like pre-World War II neighborhoods, the aesthetic nature of development is an important focus of traditional development.



The traditional pattern is historically deeply rooted in our area and can be found in almost any town. It is not a new development experiment. The following example from Hickory, North Carolina (20th Avenue NW area) is displayed with a textbook diagram of the linear traditional development pattern "Transect". Additionally a portion of Conover (Oak Shadows, L'Echo Park and downtown area) is shown on the following page as a local example that fits the pattern as a neighborhood area rather than linear form.

Neighborhood Aspects of Development

Linear Example: 20th Avenue NW, Hickory, NC

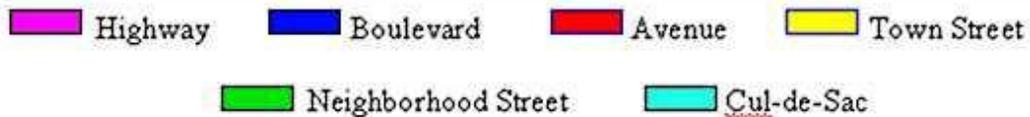


Transect as provided by the Congress of New Urbanism

Such examples can be found in most any city or town.

Neighborhood Aspects of Development

Area Example: L'Echo Park Area, Conover, NC

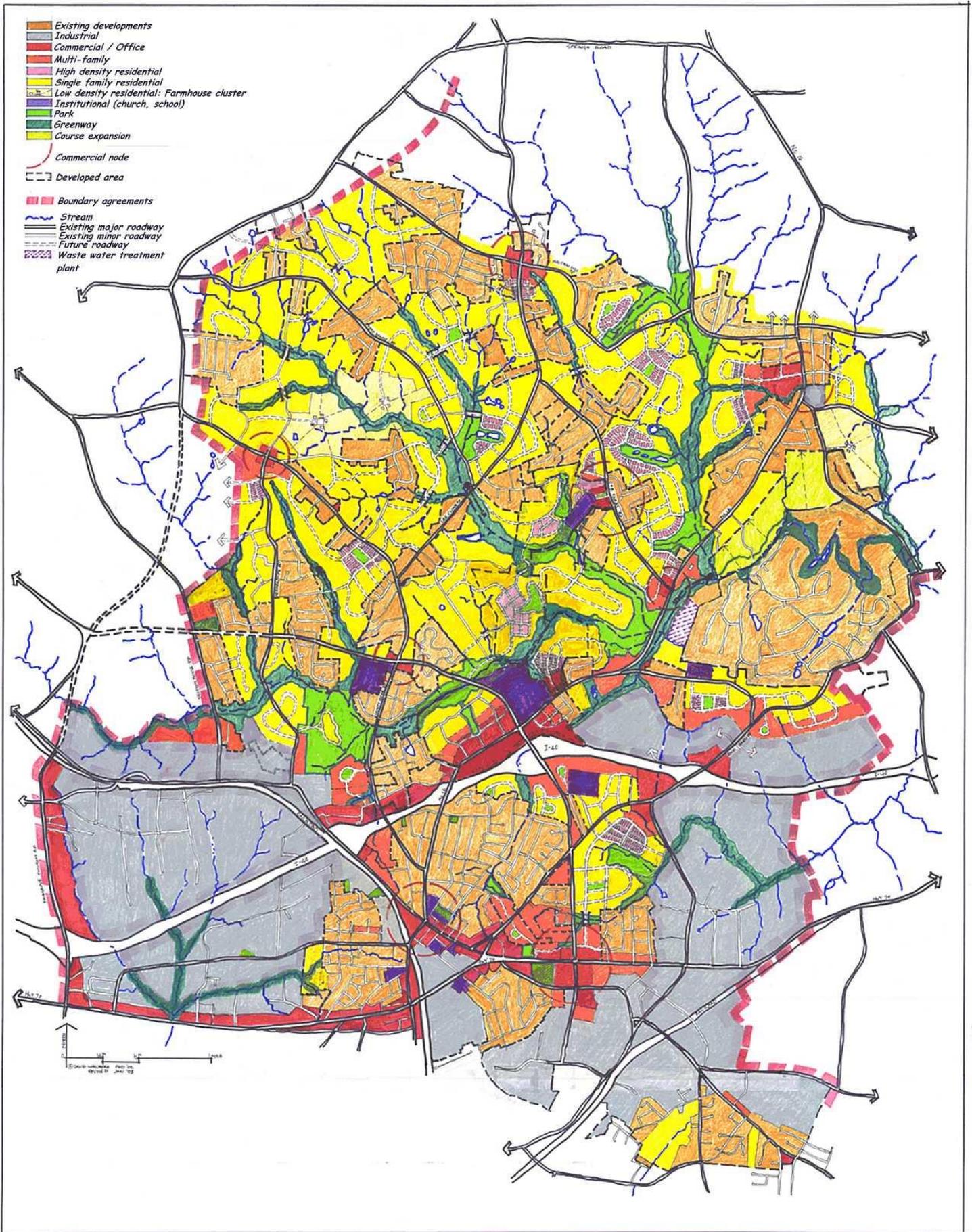


Such examples can be found in most any city or town.

Conceptual Development Plan Map

The Conceptual Development Plan Map displays the potential land development of Conover and its environs. General land uses are encouraged and to be developed where they are shown. The development shown takes into account topography, streams and floodplains, existing infrastructure including roads, water and sewer, boundary agreements with adjacent jurisdictions and existing development. In examination of the palate given, this diagram shows development practices and concepts that are feasible and well suited for the conditions. However this does not dictate future development in the exact configuration shown for streets and higher density areas (or neighborhood cores). Locations of such improvements are subject to the design of the particular future neighborhood and the developer's planner.

For example, the farm house cluster type developments shown between County Home Road and Rifle Range Road were placed in that location due to steeper topography and floodplains. It does not mean that this particular development type is only suited for that location, it could be built in other areas. Similarly, the higher density clusters (centered around a park as a neighborhood core) are not regulated to be built in the location or design as shown. Again, this is shown as a conceptual design that can vary as long as the proposed developments meet the guidelines of this Land Development Plan in conjunction with the existing natural and built environs.



BACKGROUND



Chapter Two: City of Conover's Background

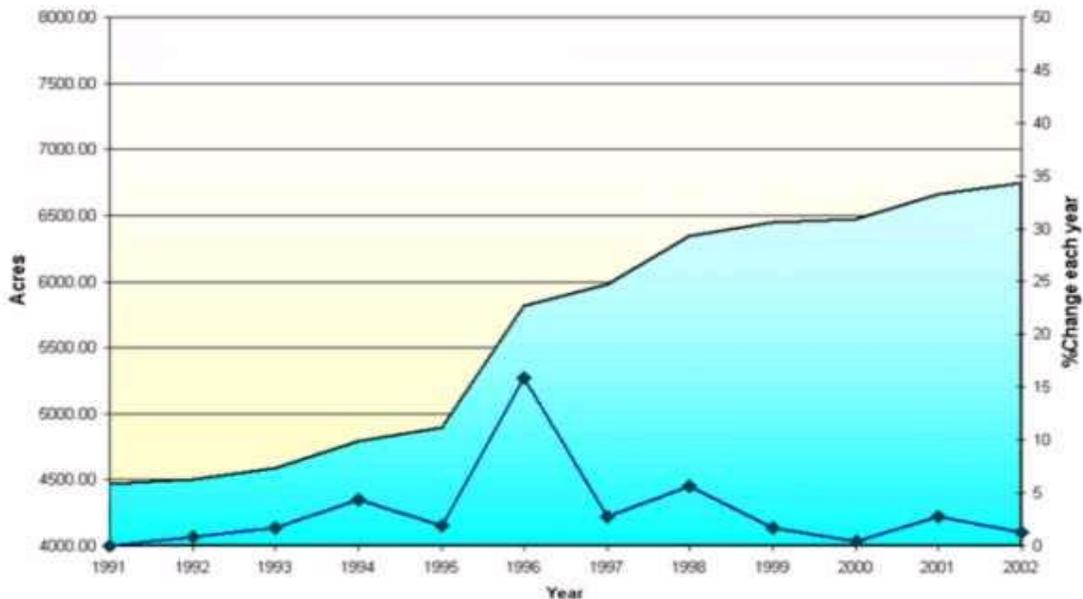
The Conover Area

The City of Conover is the geographic center of Catawba County in the western Piedmont area of North Carolina. It is included in the Hickory Metropolitan Statistical Area (MSA), the fourth largest MSA in the state. The City had its beginnings around 1859, when a “Y” intersection was formed by the railroad traversing North Carolina. The city was chartered in 1876 and incorporated in the 1876-1877 Session of the North Carolina General Assembly.



Conover has increasingly expanded its city limits over the past twenty years. In 1980, Conover covered only 2.6 square miles. By 1992, this number had jumped to 6.1 square miles, and today is

Conover: Change in Land Area 1992 - 2002

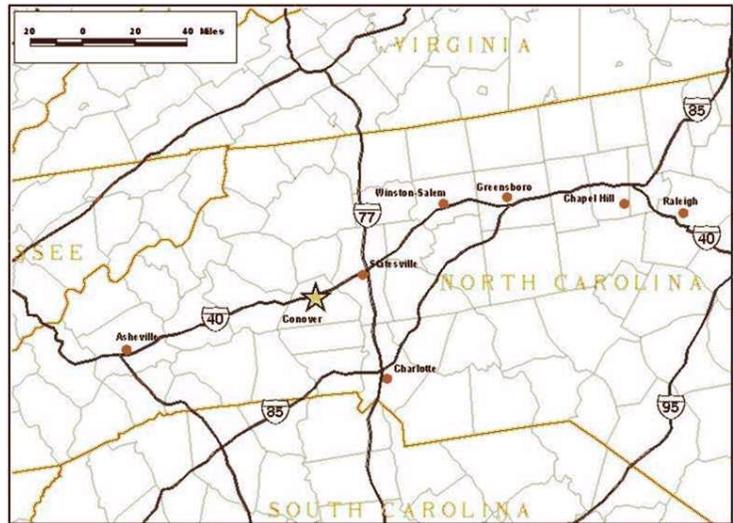


currently 10.5 square miles. This number, however, does not include the extraterritorial zoning jurisdiction (ETJ), which consists of 4.3 square miles, a 51% decrease from the 8.75 square miles of ETJ in 1992. This decrease is largely attributable to certain annexations of land previously classified as ETJ. Thus, it is necessary to view Conover in the context of the broad area over

which its realm of influence extends, not only the 10.5 square miles of city limits. Although Conover does not receive property taxes from ETJ areas, it does have zoning and subdivision control and can thus modify development so as to accent and highlight the city's development. Therefore, the study area for this document takes that external region into consideration and in many instances refers to it in general terms, which, although not site-specific, must be addressed in the comprehensive perspective of growth and development for the Conover area.

The surrounding municipalities must also be considered when formulating the 2003 Land Development Plan. The City of Hickory's downtown area is located approximately eight miles to the west. However, portions of the cities are adjacent and thus form a common boundary.

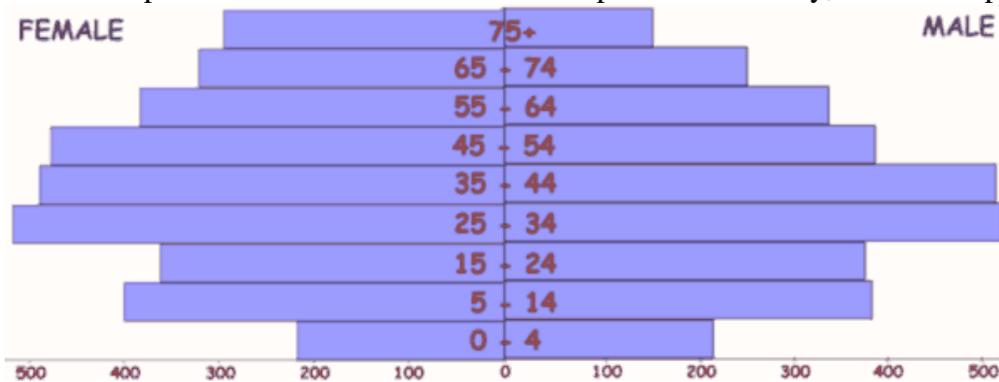
The City of Newton is adjacent to the south and also shares its northern boundary with Conover's southern limits, while the city of Claremont borders Conover on the east. In 1999, Conover entered into a formal boundary agreement with Claremont, which, in conjunction with agreements with both Hickory and Newton, served to define our growth capacity to the north. In the broader context of the region, Conover is located approximately 50 miles northwest of Charlotte; 60 miles west of Winston-Salem, and 80 miles east of Asheville.



The City of Conover operates under the council-manager form of government, the predominant means for local government administration in the state of North Carolina. Five elected Council members and mayor appoint a professionally trained city manager, who oversees the administration of the city as well as manages all departments located within the city. However, the manager fulfills only an advisory function for the Council, who are responsible for setting the local policies. This form of government allows a nonpolitical administrator to give the council accurate and nonbiased information.

Population

The City of Conover is the third most populous municipality within Catawba County. The 2000 Census estimates the population at 6667 residents, at 22% increase from the 1990 Census figure. There were a total of 2,193.34 acres annexed between 1992 and 2001, incorporating both developed and developable land, thereby emphasizing the need for Conover’s re-examination of its land development plan. With more citizens and a more diversified tax base, expanded services and land development criteria must be specified. In 1996, a municipal-initiated annexation integrated nearly 1,100 acres, consisting of area along Rock Barn Road, Southeast Sewer Plant Road, Fairway Drive, Conover West, County Home Road, and Herman Sipe Road. While an annexation requires that the city provide all major municipal services within two years of the annexation, annexed areas in turn increase and diversify the property tax base for the city, as well as provide numerous opportunities for new development. The 2000 Census shows a 26% increase in the number of housing units, 2,831 compared to 2,241 in 1990. The majority of new residential development has occurred in the northern portion of the city, because as previously



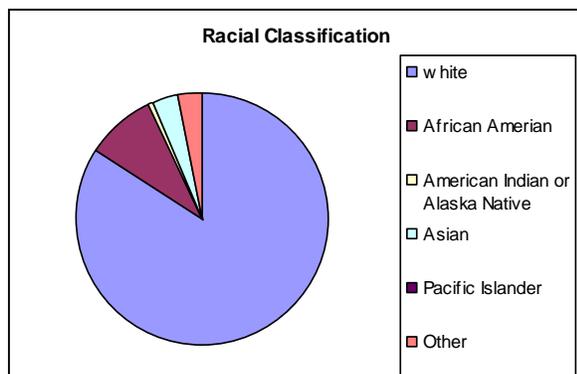
mentioned, the city is bound to the south, east, and west.

Population Projections

2005: 7,238

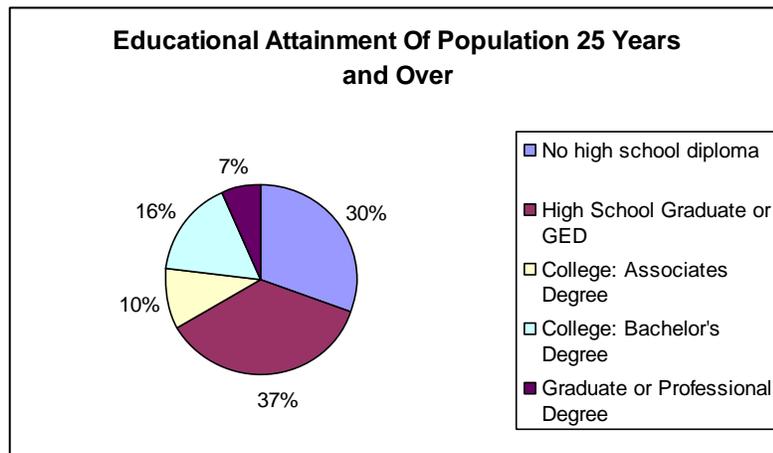
2010: 7,835

A noticeable and influential change from the 1990 census is the total number of Asian and Hispanics who have migrated to the city. This represents a 500% increase in these population groups from the 1990 Census, although still a small percentage of the total population. This ongoing transformation will continue to be a pressing issue Conover must deal with for a variety of reasons. For example, not only does this represent increased housing needs, there are also cultural and code issues that will need addressing, that will help them acclimate while still retaining their individuality.



Education

An increased population is also reflected in the number of students enrolled in school. With 1,327 residents age three years or older enrolled in school, providing adequate and up-to-date facilities is a constant concern. The Newton-Conover School Board and Catawba County School systems both operate schools within the city. Along with 3 public schools, 2 private schools are also located within Conover's jurisdiction. The schools are Lyle Creek Elementary, Shuford Elementary, Concordia Lutheran, Tri-City Christian, and Conover School. Lyle Creek Elementary was recently built as part of Cline Village, a traditional development located off of C & B Farm Road. Newton-Conover Middle and Senior High schools, located in adjacent Newton, serve the public upper educational programs for students living in Conover.



Educational levels for those citizens age 25 years or older has remained relatively stable in the last ten years. Refer to chart for 2000 Census percentages.

Economy

The City of Conover is located within the economic region known as the Carolinas Partnership, which also includes thirteen counties and those municipalities surrounding Charlotte and Mecklenburg County. This partnership is advantageous for a relatively small city such as Conover, because it provides the benefit of international marketing. The City of Conover is fortunate to have several large industrial areas, making Conover one of the largest employment bases in Catawba County and the Unifour region. Conover West, St. Timothy, Somerset, McLin, and Southeast constitute the major areas of industry.

While the area's economy in recent years has experienced steady growth due to its diversified manufacturing and commercial oriented base, the city, like other localities since the September 11, 2001 terrorists attacks, has experienced a decline in economic activity. Industrial and manufacturing plant closings and layoffs have helped contribute to the jump in unemployment. While the unemployment rate in 1990 was only 1.9% and the 2000 census estimates it to be 2.8%, the most recent county estimate for 2002 ranks the unemployment rate around 8%. Though the national economy is finally experiencing a slight revival, Conover will have to pay

increased attention to the damaged fiber/cable, textile and furniture-based industries for which the area has been historically associated. Thankfully, the last ten years have seen a diversification of industry, and the closing of the GE factory in 1996 was not as devastating to the city's economy as it could have been. This is discussed later in the industrial land use section.

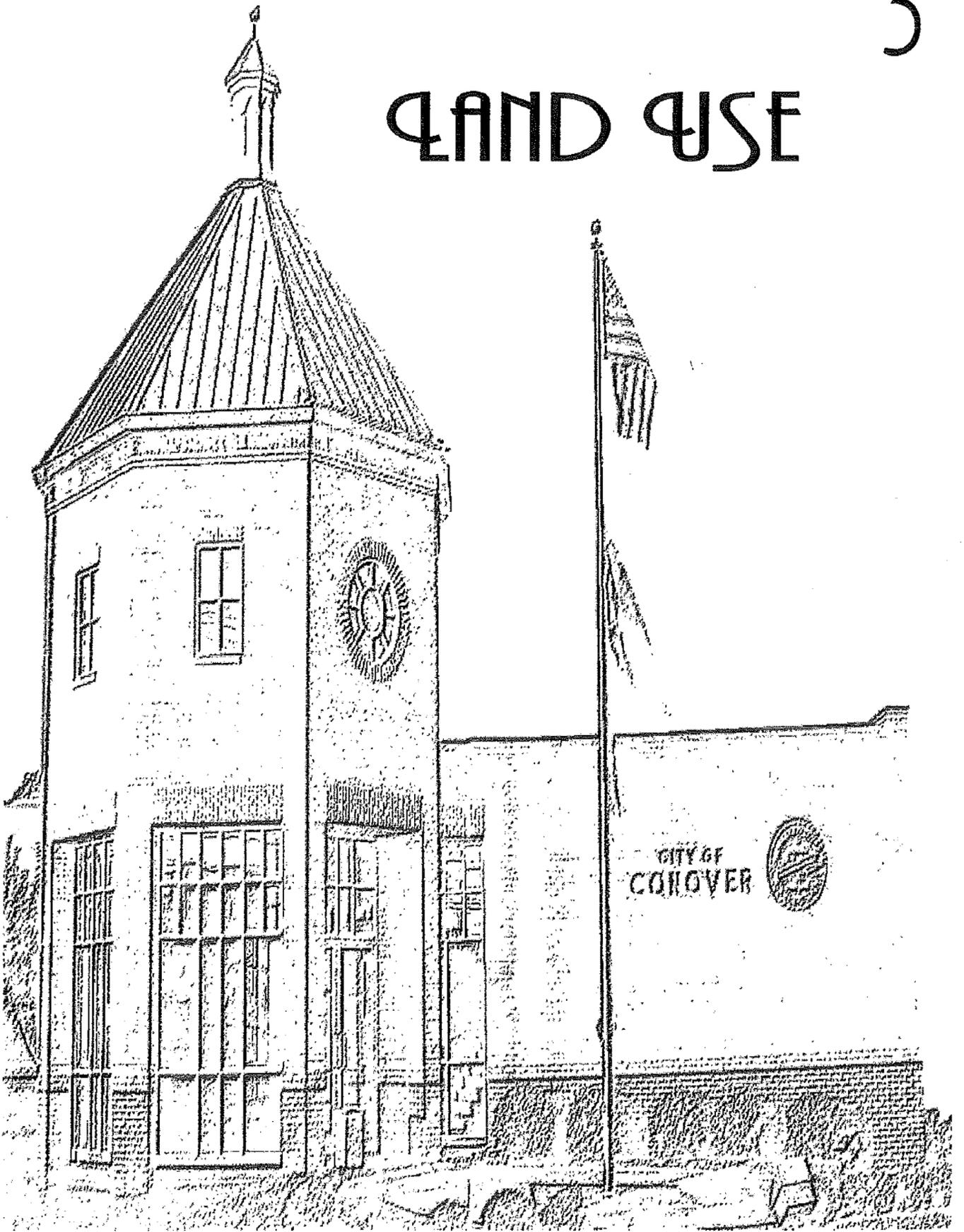
The City of Conover, like the surrounding Catawba Valley region, has experienced a doubled poverty rate. While the poverty rate in 1990 was 4.0 % for families, the 2000 census cites that number at 8.1%. However, despite this increase, Catawba County still has the eighth-lowest percentage of impoverished residents in the state. While the median income for Conover did increase from \$32,054 in 1990 to \$37,583 in 2000, that growth failed to meet the corresponding state increase. According to local economic analysts, this is largely explained due to the fact that lower-wage service industry jobs are gradually replacing manufacturing jobs as the base of the region's economy. In 1990, 1,383 citizens were employed in manufacturing, representing 25% of the population. However, in 2000, there were only 1,365, representing 21% of the population.

Building permit activity is typically a good indicator of the economic condition of a city. New construction and major expansions generally increase the tax base for a municipality as well as show a reflection of private investment, employment, and sales. Between 1992 and 2001, residential, commercial, institutional, and industrial permits resulted in a total value of over \$242 million. Refer to the chart below for details. Of these totals, 723 new residential units, 48 new commercial units, and 30 new industrial units were constructed.

Building Permits for 1992-2001								
Year	Residential	Value	Commercial	Value	Institutional	Value	Industrial	Value
1992	158	2,618,648	79	4,112,307	25	262,274	36	2,092,549
1993	202	3,342,103	86	1,777,315	21	504,939	30	5,757,287
1994	232	8,435,716	87	1,921,483	28	4,701,431	62	12,525,763
1995	275	6,990,260	74	4,726,419	32	3,010,139	32	3,652,912
1996	339	13,661,335	94	3,232,168	24	1,397,160	39	10,502,764
1997	303	9,261,706	98	6,313,261	20	2,140,234	44	10,096,914
1998	265	12,237,665	107	5,230,011	29	526,350	50	6,203,511
1999	261	14,436,293	114	3,749,151	43	4,799,864	44	12,985,568
2000	262	13,590,544	98	5,318,363	47	7,526,214	83	12,375,435
2001	229	10,342,052	92	3,682,238	30	3,693,268	48	3,242,932
Totals	2526	94,916,322	929	40,062,716	299	28,561,873	468	79,435,635
All Permits Issued from 1992-2001			4222					
Total Value of all permits issued				242,976,546				

The 1980s were a decade devoted mainly to industrial growth. Almost no new residential construction took place between 1986 and 1992. In contrast, the mid-1990s experienced both healthy and balanced growth in residential, commercial, and industrial development. However, in the late 1990s, residential construction began to outpace industrial. With new residential development today, Conover is presently looking to expand its industrial and commercial base.

LAND USE



Chapter Three: Land Use

Residential

According to the 2000 Census, the City of Conover's residential population is 6,667. Census data reflected 2,831 housing units in the city, representing a 26% increase from 1990. This number also represents 4.8% of Catawba County's total number of housing units. However, this increase can not be attributed to new development alone, because this growth rate also reflects the municipal initiated annexation in 1996, which included 206 homes. Since that time, that particular annexation has accounted for an additional 126 new homes. Conover's residential areas are characterized by single-family, multi-family, and manufactured housing in parks and on individual lots. However, the predominant type of housing is single-family residential, representing 79% of the total. Of the 2,831 available housing units, 2,684 are occupied, with an average household size of 2.41 members. The average home price has experienced a steep increase in the last ten years. Whereas the 1990 Census listed the average price at \$69,800, the 2000 Census price was \$104,900. Of course, this observation must be tempered with the knowledge that cost of living increases, wage increases, and inflation all affects this value.

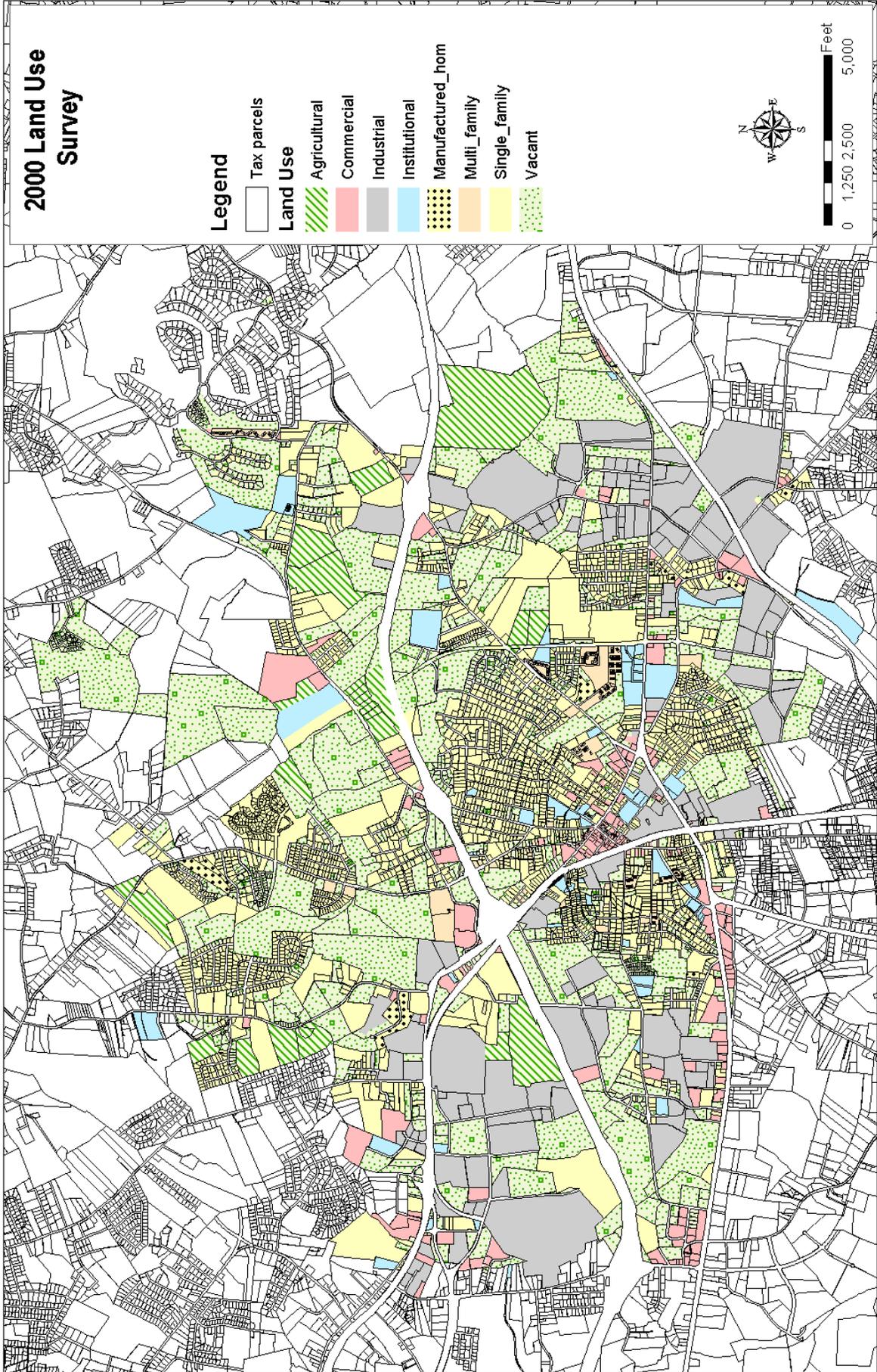
The City has 5 residential zoning districts: R-20, R-9, R-9A, NR, and NC. Of the zoning districts, R-20 is the largest and least restrictive, allowing for single-family, multi-family, and manufactured homes. R-9, on the other hand, does not allow for manufactured homes, and R-9A is predominantly all single-family housing.

The two other zoning districts follow along a more traditional approach, regulating not only land use and lot size, but also architectural and design standards. This type of zoning precludes the establishment of strip development and helps create a traditional neighborhood atmosphere. For further specifics, one can refer to the City of Conover's Zoning Ordinance.

The majority of housing units are located near or around the central part of the city, though annexations and new development have resulted in residential districts in both the north and northeastern parts of the city. Single family homes dominate the area immediately to the north and east of downtown, with several areas zoned multi-family also. Southeast and southwest of downtown is predominantly single-family, with some interspersed multi-family projects. Additionally, the Bolick Historical District, characterized by homes dating back to the late 1800's, is located in this section of the city. This historical district is designated as such in an attempt to preserve the rapidly disappearing cultural and architectural features that characterize these homes. In addition to this district, Conover is reviewing areas such as Concordia Square, located in the southeast, and 1st Avenue North/South, as historical districts for the same purpose.



*Historic Structure
1st Avenue North*

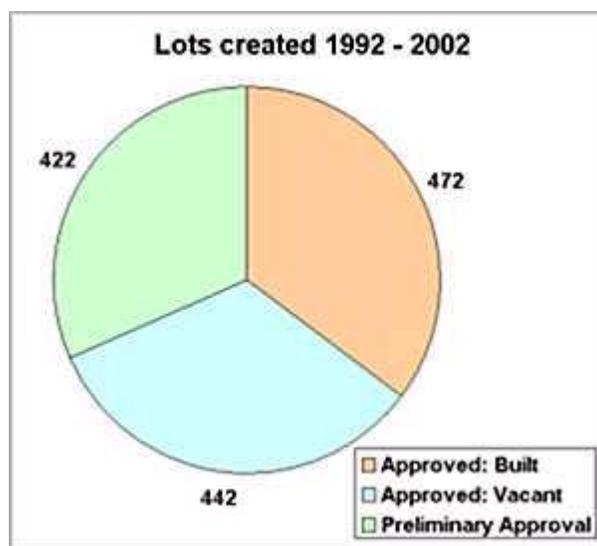


Staff will also create an inventory of places and vistas to be used in this study. Adapting and moving forward are always welcome, but we must not lose sight of historical precedents that originally shaped the appearance of Conover.

An issue Conover will have to address regarding future development is the tendency for residents and developers to move to the outskirts of the city instead of investing in vacant lots closer to the center, also called “infill development.” Most of the new residential subdivisions since 1990 do represent infill development. By encouraging infill development instead of sprawl, developers, homeowners, and service providers all benefit. Although developers may initially be drawn to external areas because of their cheaper land value, their added expense of extending proper infrastructure facilities will far outweigh any initial advantage. Homeowners benefit, because not only will they be closer in to the city, their housing costs will also reflect the lack of infrastructure costs. Service providers, such as Public Works, benefit in that they don’t have to construct new infrastructure for those areas. Due to the city’s boundary limitations on growth, all targeted areas for new residential development are to the north. As the city continues to rapidly expand the availability of residential units, issues such as providing adequate and cost-efficient services to these areas must be kept in mind. For example, the installation of water lines along Lee Cline Road and C & B Farm Road, as well as sewer line installation in the Cline Creek basin, have set the stage for development and potential annexation of this land. Ensuring adequate water supply, sewer-line installation, and solid waste service are only a few of the issues that such development would raise.

The utilization of Community Development Block Grants has enabled Conover to substantially extend its water and sewer lines, helping to provide these services for areas that would not otherwise be afforded these amenities. Also, by extending utilities, annexation possibilities are greatly expanded.

During the 1991 Council / Staff Retreat, the City Council set a goal for a 5% increase in dwellings within 5 years. At that time there were 2135 residences (not including multi-family units), which meant by 1996, the Council thought 2242 residences was an attainable goal. By 1994, that goal was met and by the year 2000, there were 2660 residences. Since the last plan was written in 1992, a total of 1336 residential lots have been approved in form (preliminary plat approval). Of that total, 914 lots have been approved by final plat and 472 homes have been constructed, leaving 442 new lots vacant. For multi-family dwelling units, 380 units have been approved, while 251 of those have been constructed.

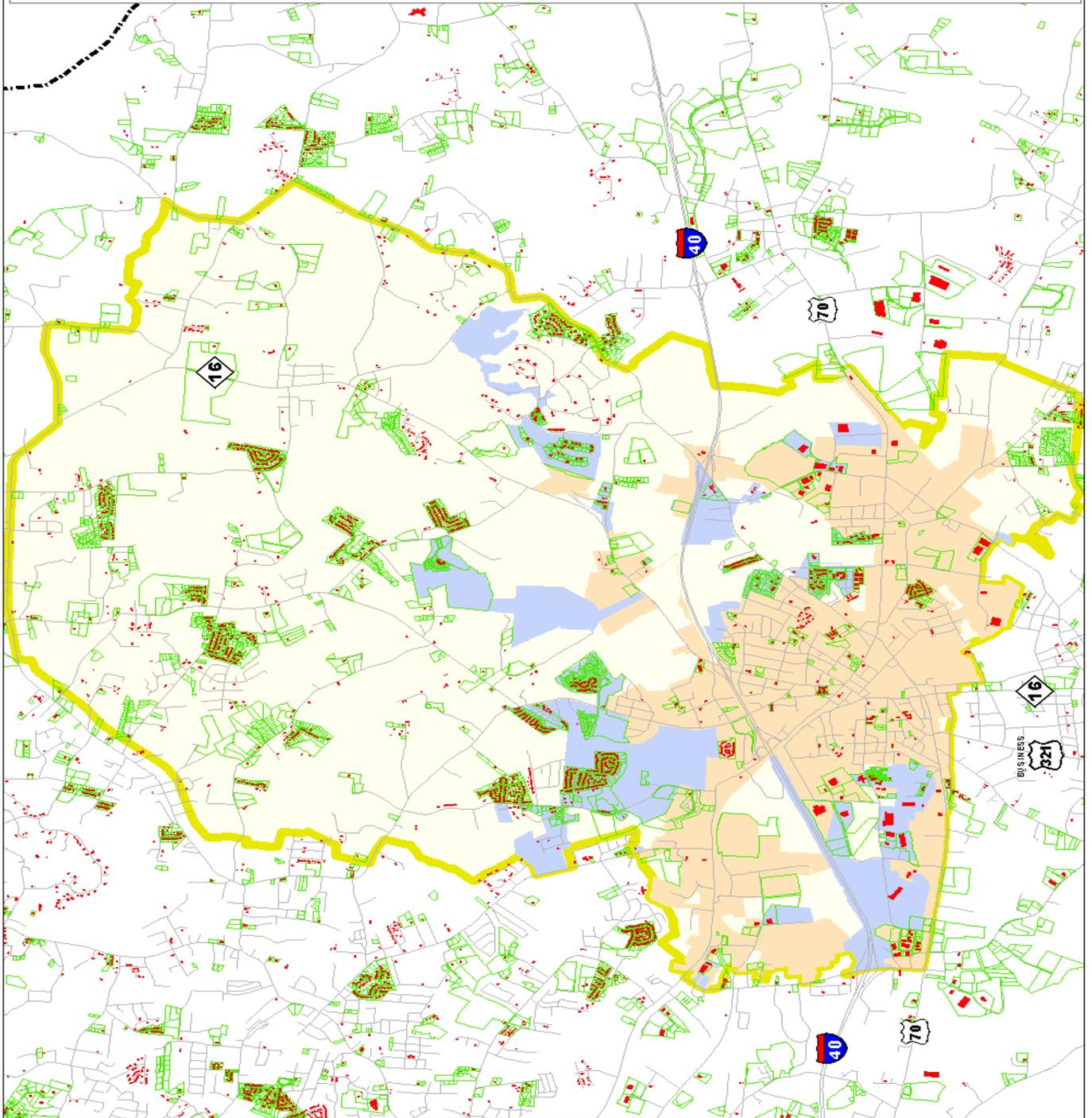


City of Conover 2002 Land Development Plan Land Division & New Construction

Legend

- Structures built 1992 - 2002
- Plats recorded 1992 - 2002 *
- Streets
- Planning area
- City limits 2002
- City limits 1992

* In some cases of division, the parent parcel is not recognized as a new parcel



Over the last ten years, the majority of new homes were valued between \$100,000 and \$150,000 filling the need for affordable housing. Prior to the 1990s, the majority of homes built were higher valued homes. A more balanced and diverse housing options will be required in new developments. In smaller developments, a predicted pattern of housing type placement will be followed.

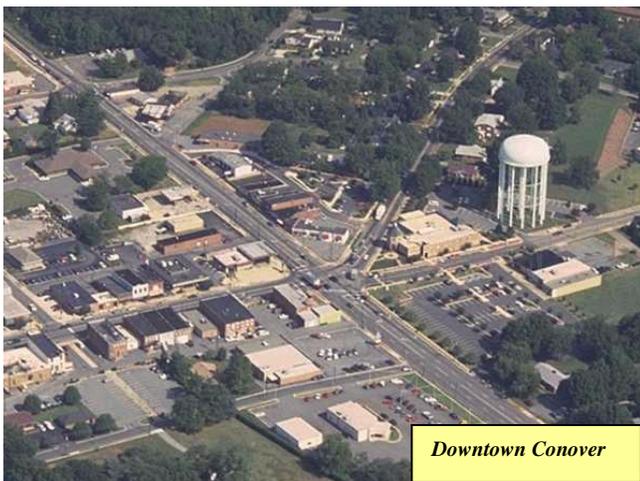
The expansion of Conover to the north follows the boundary agreements with the adjacent jurisdictions. Primarily being residential, this development concentrates higher density residential dwellings around a neighborhood core with lower density development the further removed from that core. This follows the “Transect” of neighborhood development as described in the section “Understanding Conventional Development versus Traditional Development.” This type of information, is continually collected to educate developers on effect and efficient ways to build neighborhoods.

Development shall follow the historical patterns as the local examples of the northeast, southeast and southwest neighborhoods, not the prevailing development patterns of the 1980s and 1990s. This includes a connected street pattern, variety of housing types and sizes centered around a neighborhood core, being a civic, recreational or commercial concentration. All new development shall also recognize and respect existing neighborhoods. This includes density and dwelling types of similar characteristics to be constructed where there are adjacent boundaries for a minimum distance of one block. New development is encouraged to be built in the primary development area (defined as the area presently served by municipal water and sewer services) to increase the customer base without costly expansion of services. This in turn also reduces the impacts of a sprawl type development scenario.

There are areas where existing development and/or zoning are incompatible with the surrounding development. These areas, such as a commercially zoned parcel in the middle of the Southeast neighborhood or an industrially zoned property surrounded by residential in the 5th Avenue NE area, should be zoned accordingly so that no further expansion would take place. Other larger areas identified which should be reviewed are US70A, 4th Street SW, US70, and Herman Sipe Road.

Commercial

Commercial land use is designated as such to provide locations for retail and service



establishments that typically include supermarkets, discount stores, and department stores, as well as specialty shops, restaurants, and personal services businesses. While there are several classification categories for commercial areas, such as “regional” and “community” shopping centers, for purposes of this plan, only the central business district and strip commercial are defined since that is the dominant commercial development in Conover.

- **Central Business District (CBD):** The CBD is the original commercial core of a city and serves to promote the center city. Traditionally, it developed as the town or city started to be established, adapting to serve all the needs of the local people. These areas typically offer an array of services, including governmental facilities, restaurants, local specialty stores, and service businesses, such as banks.

Conover's Central Business District is located at the intersection of two major roads, US 70A (First Street) and NC 16 (First Avenue), placing it at the heart of the city. Specialty stores, convenience stores, and public and private offices inhabit this district.

- **Strip Commercial and Local Convenience:** Strip commercial development occurs when several independent businesses are located next to each other, forming a linear commercial area along a major thoroughfare. This can also be in a form of a single development "shopping center" based by an anchor store, such as a grocery and/or retail store, and secondary stores within the center. These businesses include all types of retail, wholesale, and service establishments. Local convenience stores are generally the quick-stop types located on transportation corridors.

There are several examples of strip commercial in Conover, especially along US 70-321B. While developers see a major thoroughfare as an accessible means of attracting customers, this type of development only serves to disserve the city as a whole. The high visibility gained by developing on major thoroughfares, which originally draws investors, becomes its own problem because of the excessive and dangerous traffic and congestion that result. These types of stores usually offer no aesthetic qualities and typically are noticeable from the street by only a large, obtrusive road sign, which is necessitated due to the placement of the building so far back from the street to allow for parking. This type of development normally resembles a "sea of asphalt" due to the large parking lots that dominate their appearance. As newer centers are built, older ones become less vibrant and only stay marginally competitive, therefore becoming a burden on the community, both financially and aesthetically.



- **Neighborhood Business Core:** This is a small type of retail establishment or operation with primary access from foot or bicycle traffic, thereby making the service area closely defined. There is limited vehicular parking in the rear and side of the building. The building itself is located close to the street and is recommended to be a two story structure with the second level serving as storage, office or residential use. A convenience store is an equivalent in use, but built in a pedestrian / neighborhood manner.



*Quinns Store
Southern Village
Chapel Hill, NC*

Conover's Neighborhood Business Stores are concentrated at noted areas on the conceptual development map. These are primarily located at entrances to neighborhoods (as planned to be at the intersection of County Home Road and Northern Drive) or at the center, serving as a neighborhood core (as planned in the second phase one Cline Village).

- **Commercial Blocks or Centers:** The commercial blocks (or centers) are located in areas with regional accessibility providing retail on the first level and retail, office, and in some occasions, residential uses above. This is a grouping of stores, as opposed to the strip commercial model in a linear form. A reduction of parking is generally warranted, as shoppers tend to walk more freely between uses, thus uses are sharing the parking requirements. Similar in design as the Central Business District, this serves on more of a regional scale. Services are similar to Strip Centers, which include specialty stores, retail stores, and public, and private offices inhabit this district. These also function as Mixed Use areas with a variety of building use opportunities.



*Birkdale
Huntersville, NC*

This is to be located at the intersection of NC16 North and Thornburg Drive as a regional service and retail district. On a smaller scale (one or two blocks maximum) these can be situated at the entrance to a large neighborhood or residential area (as planned at the entrance of Cline Village on C&B Farm Road).

Existing Conditions

As mentioned previously, Conover is looking to expand its commercial base, as residential and industrial development have become dominant in the last 20 years. Commercial development can be seen as having the best of both residential and industrial assets. For example, while commercial businesses typically pay more property taxes and use more municipal services than residential use, they also provide services to residents without creating an unattractive appearance. Commercial uses are evident along I-40, US 70-321B, US 70A, and NC16. By locating on heavily traveled roads, these businesses are more accessible to a larger

customer base. Canova Shopping Center, Villa Park, and Cross Country Village are all examples of commercial shopping areas.

While Conover is not home to a major shopping mall, Valley Hills Mall, conveniently located in neighboring Hickory, is accessible from US70-321 or I-40. Canova Shopping Center opened in



1987. With K-Mart and Lowes Foods serving as its anchors, the center also provides several restaurant and shopping options. Since this center is located away from downtown, its increased usage has not caused undue congestion through downtown and the redevelopment of Villa Park, a commercial center dating back to the 1950s, is a strong prospect for the

near future, but must be renovated and possibly revamped into alternate uses. Other examples of commercial development are the I-40 Business-Park, located on 10th Street NW, and ConWest, located on Commerce Street SW.

Aligned with the theme of traditional development, Conover desires to focus on the creation of commercial nodes over the next ten years. Commercial nodes are basically neighborhood business centers or cores, interspersed throughout the city around which residential development is built. By developing in such a manner, shopping is conveniently located within walking distance, thereby simultaneously decreasing traffic congestion and improving air quality. By doing this, it will also address the lack of sufficient grocery and service facilities available to residents throughout the city. Residents in the upper north and northeast parts of the city, as well as the southwestern region, face this predicament. Residents are forced to either drive an extended distance or travel outside of the city limits. If Conover wishes to pursue its pattern of development outward, the city has to resolve this dilemma.

Though the city is proposing no new drastic plans for the central business district, it does desire to continue its 1980s plan for the beautification of the downtown area. Beginning in the 1980s, a systematic process was begun to replace aging sidewalks, street lighting, and plantings, as well as encourage individual businesses to improve their building appearances. Thus, the city, recognizing the importance of a stable and flourishing downtown, plans to continue its general fund allocation of downtown improvements. Since the 1992 plan, the city has renovated City Hall, which had formerly also served as a fire station. The former Public Works facility was fully rehabilitated as the Police Station. The city should pursue options or first right for refusal to purchase the remaining three privately owned parcels in “City Hall block” for future expansions. As part of the continuing improvements to downtown, brick crosswalks are planned for various streets within the CBD.

Another recent improvement and additional service in downtown was the result of a partnership with Catawba County, in which the Conover Express Library, a branch of the Catawba County library, was opened on the bottom floor of City Hall. With a wide selection of books and its own computer lab, residents no longer need to travel far to enjoy a good book or to access the internet.

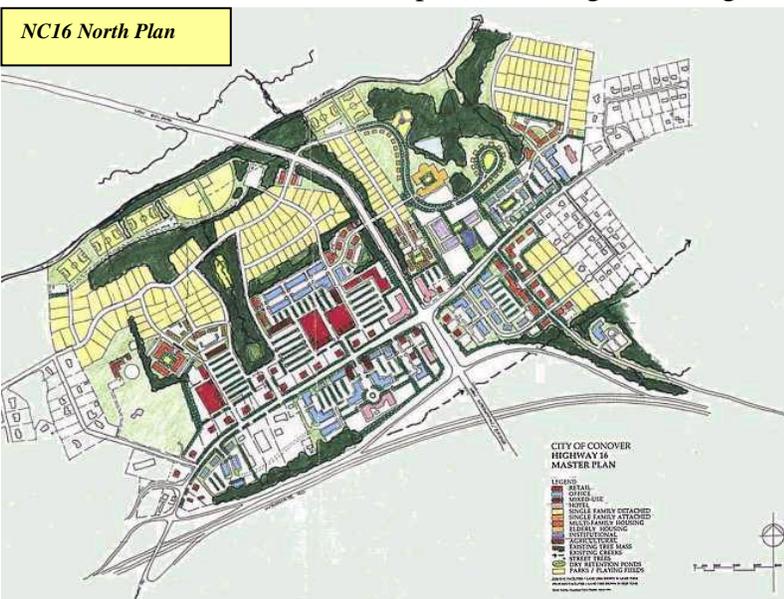
While Conover recognizes the necessity of improving and developing the downtown area, it also realizes that its location and main purpose should remain basically unchanged. The CBD should serve as a financial, governmental, and office core of the city, not as an expansive commercial development zone. Primary tenants for the downtown should be relatively small service businesses, banks, and local restaurants. By encouraging beautification and appropriate businesses, the CBD can maintain its small-town charm while still providing a necessary function for the citizens.

Mixed-Use Districts

As mentioned previously, mixed-use zoning districts are characteristic of the traditional development design. By allowing a variety of land uses, convenience and community are maximized, while minimizing traffic and isolation. Mixed-use districts are a pedestrian-oriented environment in which housing, work, restaurants, retail, and civic institutions exist in tandem. By serving as an anchor for a residential neighborhood and also serving the broader community, these districts provide a dual benefit.



A difficulty associated with incorporating mixed-use districts is that once conventional zoning is in place, overhauling that system is a time-consuming and often controversial process. Citizens often fear change, regardless of the fact that this will be an improvement to their lives, both in relation to convenience and aesthetics. Presently, Conover has a few areas zoned as mixed-use, two are located off Highway 16 and another is in Cline Village. Over the next ten years, more mixed-use districts can be incorporated through rezoning, but only in appropriate places and can also serve as neighborhood centers.



New commercial and mixed use developments shall be based on the neighborhood cores or nodes in the northern expansion area, with a regional area centered on NC16 North at the new interchange with Interstate 40. This regional center shall be built in a traditional development pattern (as a conceptual layout or design). There is a need for grocery and service businesses in

the northern expansion area. The NC16 North district has exceptional accessibility with the new interchange, the land's relationship to Interstate 40 and serving as a regional center for northeastern and eastern Catawba County. This will be built as commercial blocks including shopping center type and mixed use buildings. Recent regional examples, which have been built, include Rosedale, Jetton and Birkdale developments in Huntersville, Cornelius as well as Davidson, North Carolina in northern Mecklenburg County. These three examples offer buildings which anchor the street, safe pedestrian movement facilities, and proper internal and external vehicular connection to neighborhoods and thoroughfares. Shown is the Rosedale development placed upon the NC16 North area as a real example of this concept and how it relates and could be built upon that land.



NC16 North Area with Rosedale Commercial Area

Automobile dominated development will be allowed to continue along Conover Boulevard (US70), however, that development will be somewhat altered to bring building(s) forward as required by the code (as can be seen with the recently completed Nagano Restaurant on Conover Boulevard West). Few vacant parcels remain and a set of completely different requirements would not accommodate or fit the existing pattern. Also, the southern properties on Conover Boulevard



Villa Park

West and Boundary Street are in the City of Newton's jurisdiction, where Conover's policies do not apply. To this end, it is recommended that the principles of the Commercial Corridor Zoning District be incorporated into all commercial zones.

There are opportunities along the US70 corridor for redevelopment of properties with several older and obsolete structures scattered along the roadway. One such opportunity is the Villa Park Shopping Center, having sufficient land with multiple access, located at a major intersection. A major renovation or full redevelopment is encouraged.



Development Scenarios Block Pattern versus Strip Pattern

Industrial

Industrial growth is a necessary component for any growing and thriving city, such as Conover. Attracting even small industrial businesses provides huge economic assets for the city. Not only do new industries mean new and more jobs for residents, the property taxes these businesses pay contribute a significant portion to the overall tax base. For example, with the current tax rate at 38 cents per 100-dollar valuation, a \$150,000 home would pay \$570, compared to \$3,800 for a million-dollar industry. However, to be fair, one must consider the additional acreage required for an industry. Assuming an 8-acre industry is equivalent to 16 homes, with an average value of



\$150,000, the homes' total property taxes would be \$9,120. However, those homes also represent a potential 16 service calls, whereas the industry can account for only one. In addition, the city's gain on personal property taxes is much higher for industry due

to equipment and inventory. Also, the level of utilities service required by an industry is much larger than for any household, another economic benefit for the city. However, it is important to note that Conover adheres to a "No 'Wet Industry' Policy", meaning they do not scout for industries that require a large capacity of water to function. The rationale is that as industries use vast amounts of water, they decrease the city's capacity level, thereby hindering future growth without an adequate supply.

Conover has encouraged maintaining a diversified industrial base for more than the last ten years, instead of focusing on a single industry. However, some may argue that this diversification became more of a necessity after the 1996 closing of the General Electric Plant. The plant, which was a community staple for forty years, was also a major source of revenue for the city. Thus, planning foresight enabled the city to not be devastated by such a loss. While the financial loss was significant, especially with regards to public utilities, it has not been the devastating loss that it perhaps could have been. By no longer focusing on such a single dominant industry, Conover has been able to bring in manufacturing businesses, furniture and warehousing industries, and distribution centers among many other types. By diversifying, the city need not wait for a single industry's failure or bankruptcy to impact or become a financial encumbrance for the city. Conover's Industrial growth over the last ten years has been significant and financially advantageous. Between 1990 and 2001, 477 industrial permits were issued for a total value of \$83,684,142, representing 32.87% of the total value of all permits issued during that time. Perhaps more noteworthy, of these permits, 33 were issued for new industrial facilities. The industrial zoning areas within the city are primarily west, southwest, and southeast of the downtown area, with some of the areas lying adjacent to the downtown area.

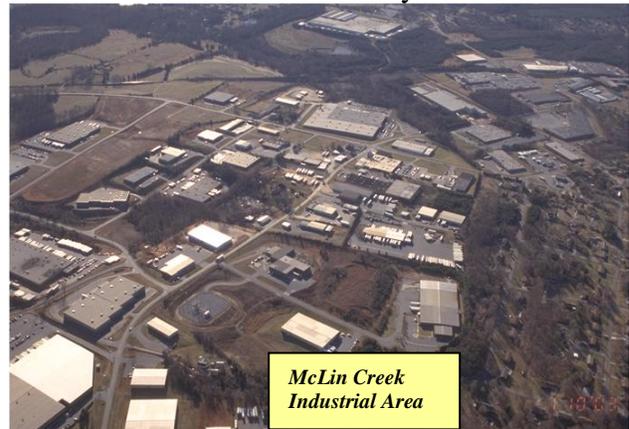


Although there are no areas in Conover that fit the typical description of an industrial park, there are several zoning districts for which manufacturing and general business occupants are designated. These districts are M-1 (General Manufacturing), EM-1 (Exclusive Manufacturing), and B-4 (General Business). Conover's primary industrial centers are Conover West, St. Timothy, McLin, Somerset, and Southeast. Primarily manufacturing, textile, and fiber-optic industries characterize these five areas. Conover West, the most recent major addition to industry, was initially planned as three disjointed industrial areas. However, with the City serving as a catalyst for communication and cooperation among the three developers, it was made clear that a unified effort would not only be more cost efficient but also more marketable to prospective tenants. In reference to the Community Development Block Grant chart in the previous section, another benefit of adding infrastructure is that it serves as a selling point for new industries and businesses that want to locate within the city. Another advantage results from

the city's strong industrial base, the daytime population remains three times higher than the resident population. Conover continues to be an employment center to the area.

The economy of today has changed dramatically from just three years ago. Our region, coupled with a national recession, is going through a fundamental economic shift. The traditional industrial base has been changing and textiles, furniture and fiber/cable manufacturers are going to have slower recovery cycles. However, many longstanding businesses have stayed, adapted and prospered in the changing business environment. Ongoing recruitment of industrial and advanced service sectors will continue to diversify the industrial base. Medical, research/development, tourism, call centers and aged services are just a few examples of alternate or increased recruitment directions. Even as important to develop land is the understanding that Conover alone cannot foster its own industrial success. Collaboration with all regional jurisdictions will add to the support industries and spin off opportunities within the city. These two efforts (expansion of local firms and recruitment of outside interests) are imperative for an effective economic development policy and for industrial prosperity.

Transition lands along US70A (First Street West), Thornburg Drive (between Emmanuel Church Road SE and Keisler Road SE), and the Keisler Dairy Road area within the city should be rezoned for future industrial development. This land, together with land availability



within the existing industrial districts will allow new businesses to locate within the region for several years to come. Accordingly, aesthetics also play an important role and it is recommended that standards for metal buildings be developed, such as street facades must be brick or masonry. One cannot be stagnant and the area to the north offers the potential for light industrial and heavy businesses uses near Shook Road and NC16 North (where existing industry is located), should be investigated in a defined area. Also, the economic development projects, which help create new job opportunities, only serve to strengthen the economy and therefore encourage new development. Attracting new industries, yet maintaining adequate utility and land capacity for new commercial and residential uses, will be a focus for Conover for the next ten years.

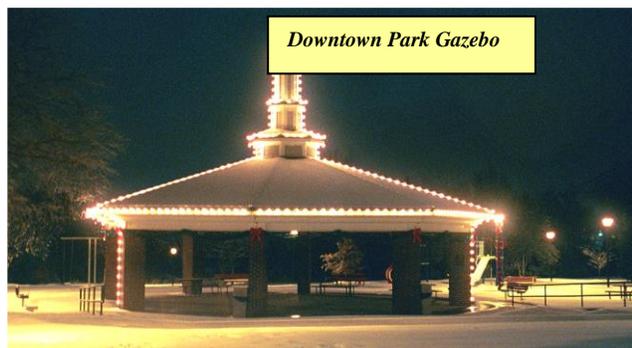
Open Space

Over the last ten years, the city has turned the need of open space into a priority. Developments in the early 1990s needn't preserve open space in any form, although it was required by code. In the mid 1990s, that notion evolved to what amounted to leftover land in developments; in the last few years, useable open space placement is now specifically identified.

Since 1992, 23.18 acres of public open space have been added to the city's jurisdiction. These 5 passive recreational parks not only enhance the beautification of the city's natural resources, but they also provide a safe, clean environment for individuals and families to spend their leisure time, as well as promote physical fitness. The five parks are: *Hines Park*, located on 4th Street SW; *Southwest Park*, located at 2nd Street SW; *Hunsucker Park*, located at 8th Street NE; *Travis Park*, located at 6th Street Court NW; and *Downtown Park*, located at 2nd Avenue NE. All five parks include picnic tables and a gazebo, and four of the five have playground equipment. Other amenities, such as softball fields and basketball courts, are unique to each park. With the rapidly increasing number



Hunsucker Park

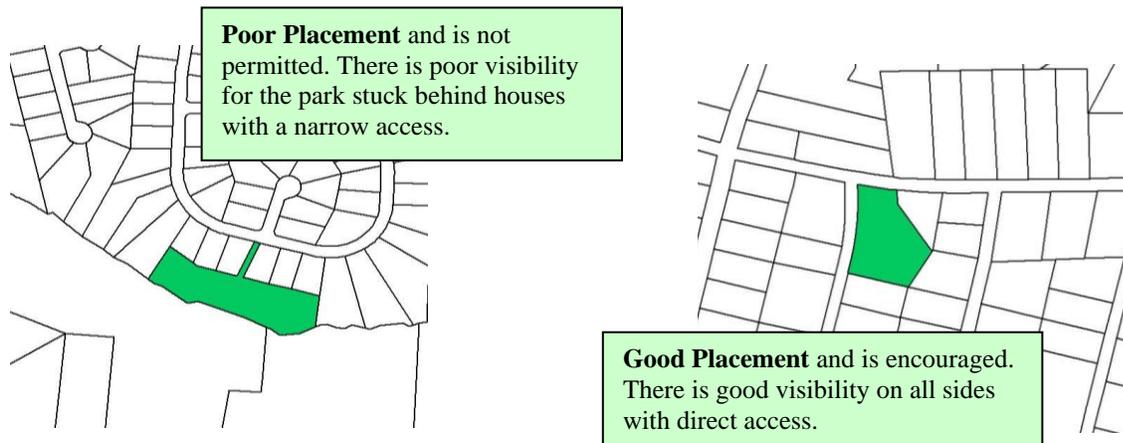


Downtown Park Gazebo

of residents, especially children, the city must ensure that ample and accessible open space is available and keeps pace with corresponding growth. Though Conover has no recreation department, the County YMCA is located in Conover and provides easy access for citizens seeking a more standardized and formal means of recreation.

Residential developments have been required to preserve or create open spaces within subdivisions. Although developers are initially responsible for the maintenance of these areas, as these areas gradually become acclimated into recreational areas, the city will likely take over their upkeep when homeowner associations fail to maintain the properties. Several of these “private” open spaces are scattered throughout the city in newer subdivisions.

In light of these recent steps, the city must better plan open space development and acquisition or risk a haphazard collection of small tracts with no communal purpose. Park development shall follow the definitions and designs as contained within the Zoning Ordinance, of which all serve distinctive purposes. Of utmost importance, good placement, visibility and access are imperative for parkland to function properly. Poor placement, visibility, access and design leave the open space undesirable for use and causes the space to ultimately fail.



The city shall work to establish a greenway system primarily along the floodplains of Lyle and Cline creeks through requiring developers to dedicate the areas as a part of the open space requirements of the code and work with property owners of developed lands. Where this is not feasible, utilization of the public right-of-ways (such as water, sewer and streets with sidewalks) will provide connection in between open spaces. As a part of the greenway system, park improvements are recommended where Lyle Creek crosses under Section House Road and Herman Sipe Road; Lee Cline / Rifle Range Roads where Cline Creek crosses; and a regional park at the confluence of Lyle and Cline creeks at NC16 North and along floodplains in Conover West commercial area.

Parks also act as neighborhood cores when designed as commons or greens. This, coupled with the possibility of higher density dwellings, provides an active, defined and safe gathering space for residents. Parks also need to be established where deficiencies in neighborhoods exist. Neighborhoods in the southeast, lower southwest and northwest areas of Conover in particular do have sufficient open space available to serve their residents needs, but is currently under utilized.

City of Conover 2002 Land Development Plan

School, Park & Recreation Facilities

Legend

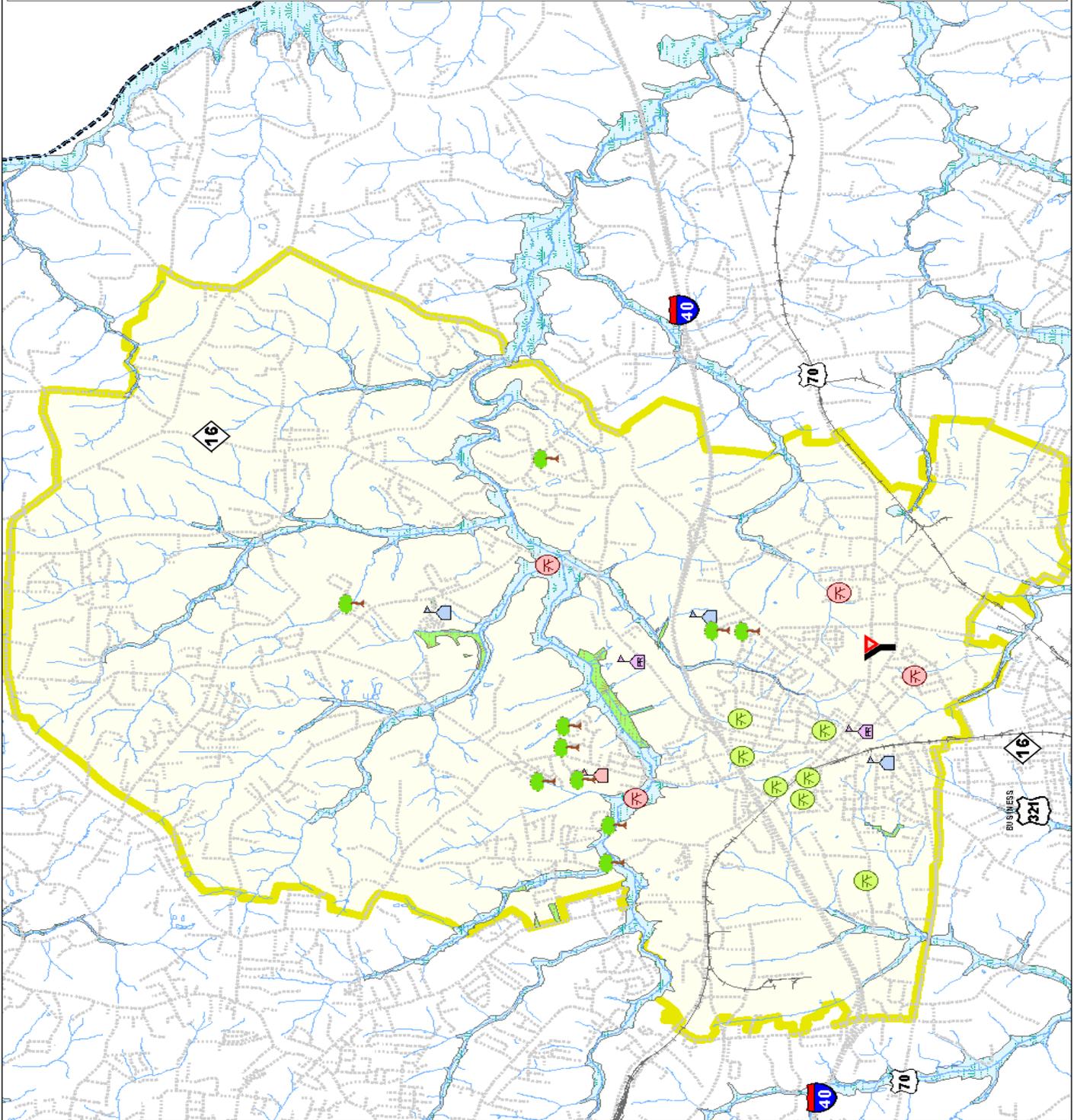
- Railroad
- Streets
- Hydrography
- Open Space Zoning
- 100 Year Floodzone
- Planning area

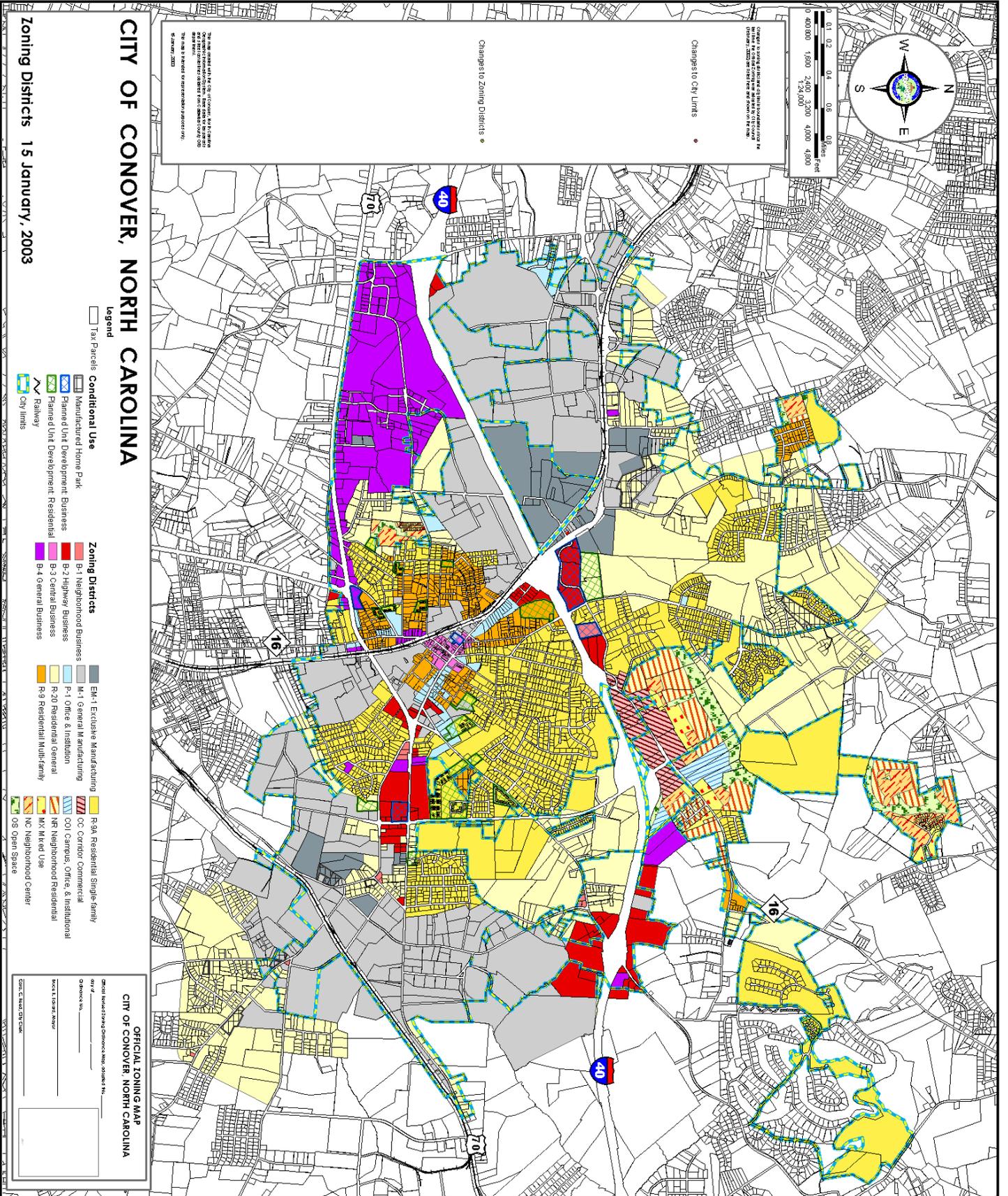
Facilities

- Public School
- Future Public School
- Private School
- Park
- Recommended Park
- Private Open Space
- YMCA Recreation Facility



1:48,000





CITY OF CONOVER, NORTH CAROLINA
Zoning Districts 15 January, 2003

MOBILITY



Chapter Four: Mobility

Transportation Introduction

Every aspect of our daily lives is influenced by and adapted to our means of transportation, the quality of the roads, and the available modes of transportation. As a corollary to transportation, the volume of traffic will also have a tremendous impact on our daily commutes, as well as on the level of safety we experience as we utilize the roads and street system. The condition of transportation facilities heavily influences the overall desirability of a community as a place to live and work. Additionally, economic development is equally dependent on an adequate traffic circulation system and the proper relationships of those facilities are essential to the development and use of the land. Land usage and design is inextricably linked to transportation facilities. Thus, considering all of this, as well as the tremendous costs associated with street construction, it is important that Conover plan for a logical road pattern that serves a functional purpose.

This section describes the existing condition of Conover's transportation facilities, system, and capabilities. Background information is reviewed on the traffic circulation system and its functional design, which provides an understanding of the purpose of the system and its characteristics. The street classification names may differ among different regions as to their exact name. Located within the parentheses are synonymous terms.

Hierarchy / Function / Classification

- **Highway (Major arterial):** A street designed for fast-moving, large-volume traffic, often for statewide and interstate travel. For safety reasons, these roads have controlled access, free of driveways and intersections, which interfere with traffic flow.
- **Boulevard (Minor arterial):** A street designed for relatively free movement that serves urbanized areas travel purposes. This is a multi-lane roadway and should be designed with landscaped median and bike lanes.
- **Avenue (Major collector):** This type of road serves major intracounty travel corridors and provides access and connection to the roadway system. Different from a boulevard in that its length is a finite distance and serves specific locations within the urbanized area.
- **Town Streets (Minor collector):** These roads link the local traffic generators with nearby neighborhood areas. It is designed to carry light to medium traffic volumes within the neighborhoods.
- **Neighborhood (Local) Street:** This local road primarily provides access within residential neighborhoods and serves as a medium for short-distance travel. It is not designed for heavy volumes of traffic.
- **Alley:** These are public service access that serve as only a secondary means of access to property, access to parking and service areas.

Existing Roadway Facilities

Conover has exceptional proximity to national, regional, and local transportation facilities. Immediate access to Interstate 40 by four separate interchanges gives Conover a direct link to interstates that offer national transportation access equidistant from markets in the northeast, southeast, and midwest. Excellent regional highway access by Interstate 40, which bisects North Carolina and connects with other interstate routes such as Interstates 85, 77, 26, and 95, also opens Conover up to external travelers as well as provides easy access for residents. Transportation access is also very good in Conover for local traffic. Interstate 40, US70 and US 70A provide east/west access, while US 321 and NC 16 provide north/south routes.

For clarification, listed below are a few local examples of each of the branches of the hierarchy:

Highways: Interstate 40

Boulevards: US 70/321, US 70, US 70A, NC16, Section House Road (SR 1491), 1st Street West (SR 1007), County Home Road (SR 1484), Rock Barn Road (SR 1709), Thornburg Drive (SR 2642)

Avenues: Debra Herman Road, 10th Street Northwest, McLin Creek Road, Keisler Road, 7th Street Place Southwest, 4th Street Southwest, and Bumgarner Industrial Drive

Town and Local Streets: Bolick Drive, Atherstone Street, Deal Avenue, Edgewater Lane, 8th Street NE, 5th Street NE, 3rd Street SE as examples

Alleys: Those rear access roads located within Cline Village

The 2001 Hickory-Newton-Conover Urban Area Transportation Plan, published by the NCDOT for the Urban Area, revealed several traffic issues that Conover will have to address in the very near future. Six major roads that facilitate transportation in and through Conover are currently experiencing congestion problems (NC 16, 1st Street, 10th Street Place, Emmanuel Church Road, McLin Creek Road, and Rifle Range Road). Some of 1st Street West's problems are being addressed at this time by constructing an extension and by widening the street. However, the other streets' problems need addressing. Also, the transportation plan reveals that seven streets, while functioning fine at this time, are going to face capacity and congestion problems by the year 2025 (Section House Road, Conover-Startown Road, County Home Road, Rock Barn Road, NC 16, Fairgrove Church Road, and 4th St. SW). Still one of the most congested areas in Conover, and one of the most dangerous, is the notorious five-points intersection located

City of Conover
2002 Land Development Plan

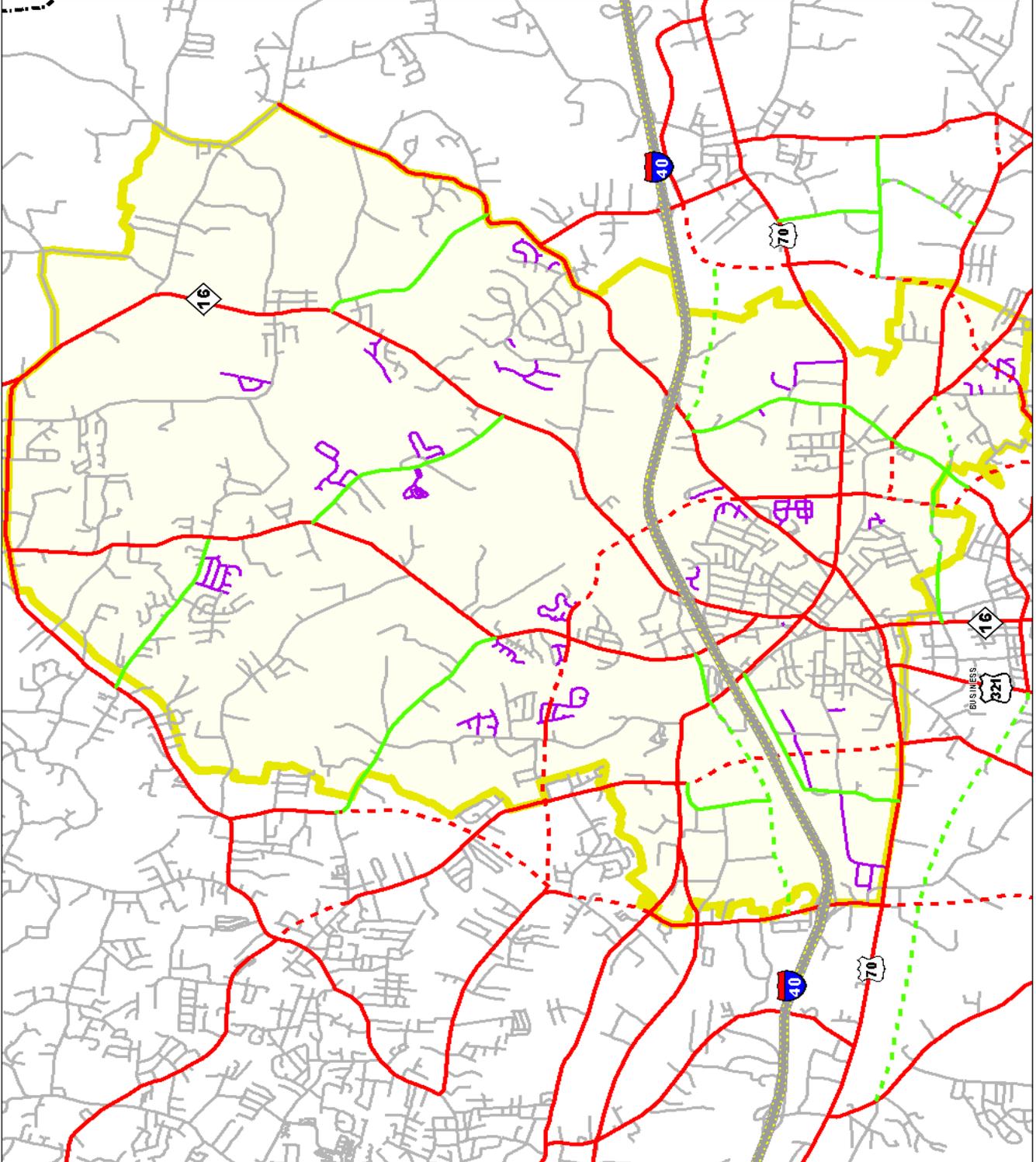
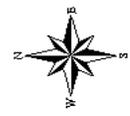
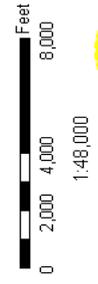
Transportation: Streets

Legend

- Planning area
- Streets
- Streets built since 1892

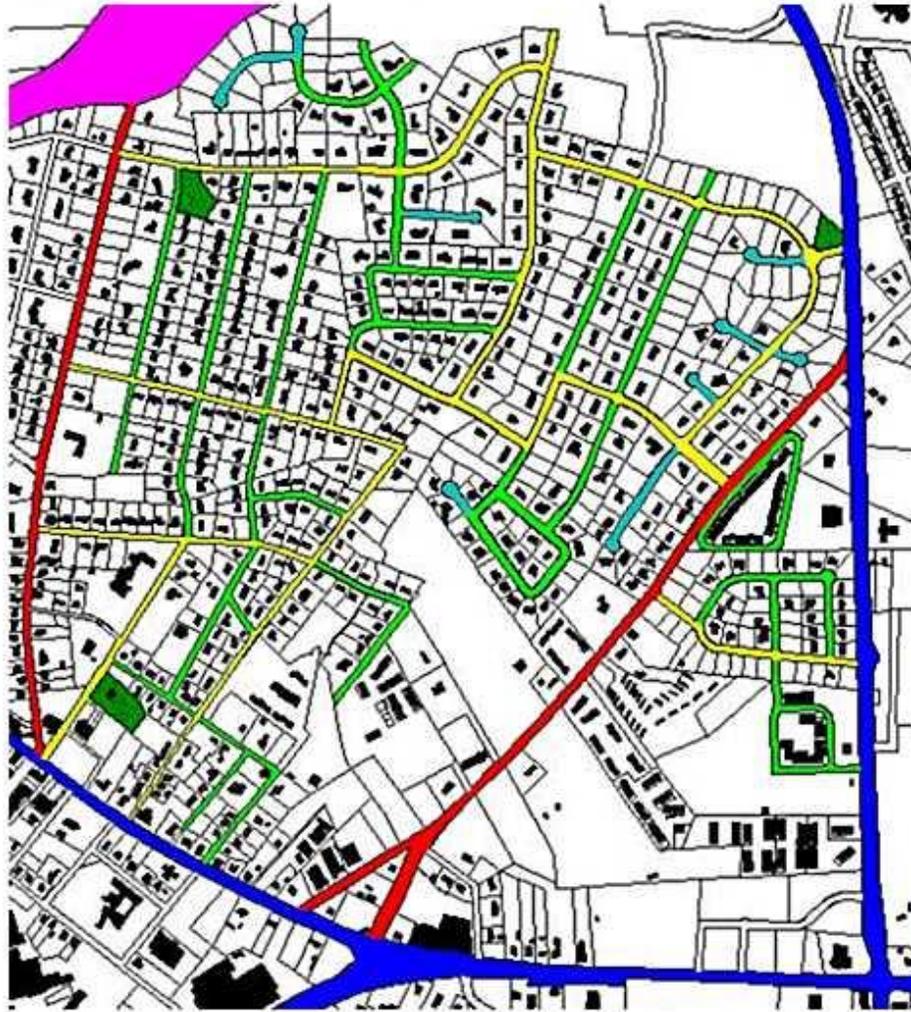
Thoroughfares

- INTERSTATE
- MAJOR, EXISTING
- MAJOR, PROPOSED
- MINOR, EXISTING
- MINOR, PROPOSED



Hierarchy/Function/Classification

Example: L'Echo Park Area, Conover, NC



 Highway	 Boulevard	 Avenue	 Town Street
 Neighborhood Street	 Cul-de-Sac		

Such examples can be found in most any city or town

in downtown. Traffic counts from 1999 indicate that over 55,000 vehicles per day traverse this area. The City will continue to place an emphasis on roadway improvements, such as protected left turns, signalization, pedestrian crossings with signals and deceleration lanes in conjunction with new roads.

There are currently two North Carolina Department of Transportation Improvement Programs (TIP) under construction that will have significant impacts on Conover. TIP U-2414, also known as the Tate Boulevard Extension (1st Street West) project, has been completed. The project results in the multi-lane widening of a major East-West road north of I-40, as well as a multilane connection between the downtown of Conover and Hickory.

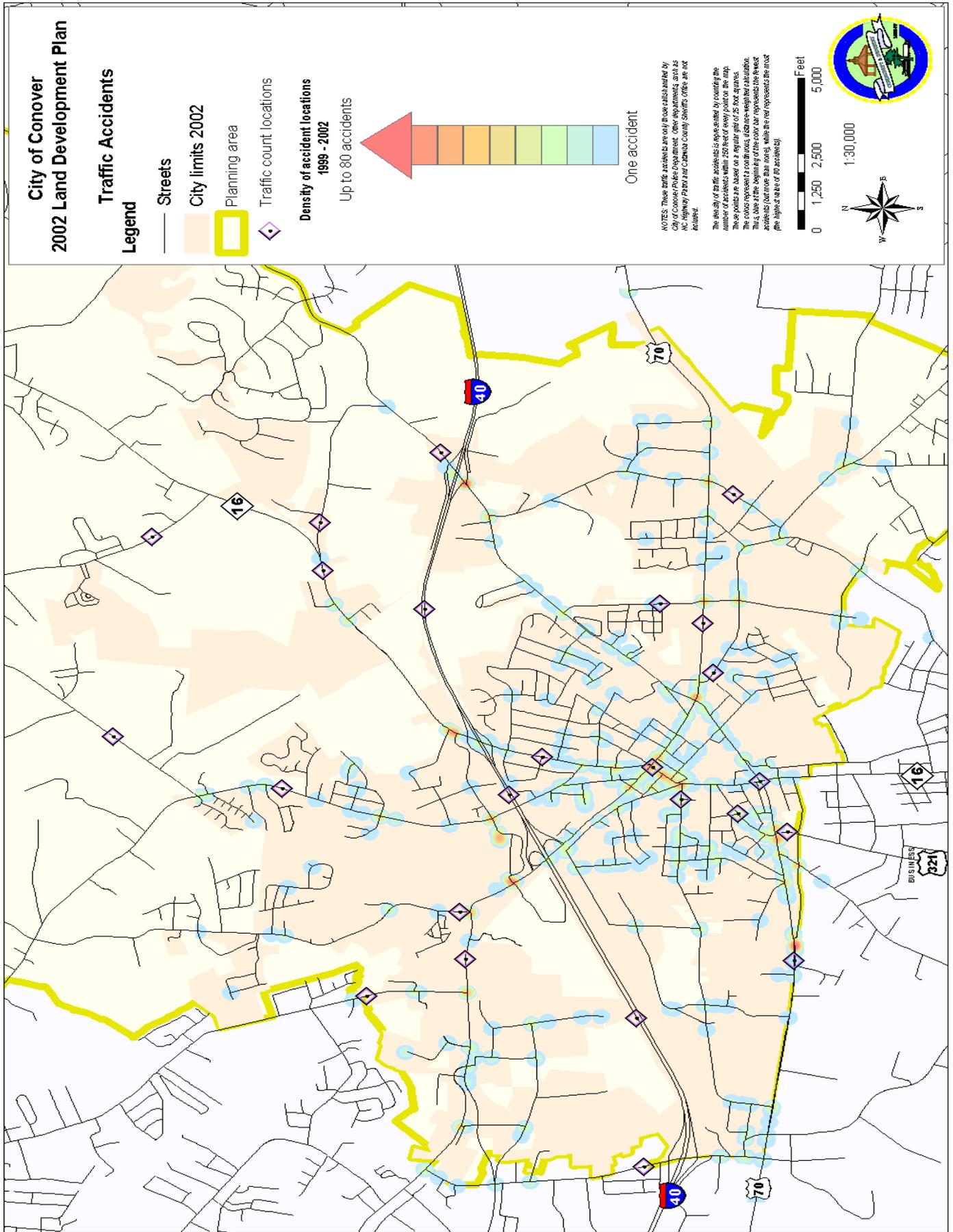


TIP U-2404, also known as the “Eastern Loop” the will create a new interchange on I-40 and widen NC 16 south of Newton to north of Conover into a four lane divided road. By creating a loop around Conover, much of downtown’s traffic will be diverted, thereby decreasing congestion in the five points intersection.

It is important to recognize that Conover must continue to follow the Transportation Plan as adopted by the MPO for the Urbanized Area. Links, such as the two NCDOT projects mentioned above are imperative to keep traffic flowing during peak times and offering alternative routes. Conover’s policy of requiring thoroughfare right-of-ways to be dedicated when development occurs is key to the implementation and continued success of the Transportation Plan.

Accident Hotspots

Increasingly congested streets have contributed to the dramatic increase in vehicle accidents within the last ten years. It is apparent that Conover’s residents desperately need a viable alternative to individual automobile usage. In 1992, there were only 377 accidents, compared to 647 in 2002, a 71.6% jump. The list below identifies the most accident-prone locations. *Five Points Intersection; 1st Avenue South in Downtown; 7th Street Place SW and US 70 Conover Blvd and Boundary Street; 1st Street East and Rock Barn Road; 10th Street NW and US 70A; 1st Avenue North and I-40; Wilco Truck Plaza.*



Alternate Modes of Transportation

Providing alternate modes of transportation is going to be an increasingly important concern for Conover, as with all municipalities. Urban sprawl and the degradation of the CBD as a central shopping area have contributed to an increasing reliance on automobile transportation. We have become a society that considers the definition of “walking” to be the distance traveled from our front door to our driver’s seat. Not only does this not promote physical fitness, it also increases toxic automobile emissions and contributes to already congested streets. It is Conover’s duty to provide multi-modal transportation routes, but it is each citizen’s duty to capitalize on those opportunities.

Unlike many urban areas, the Hickory-Newton-Conover area has one of the better highway systems in the nation and, thus, relies very little on public transit. As a prime example, the average daily travel (ADT) of I-40 more than doubled from 1984 to 1994. The ADT on US 70 and US 321 also experienced increases during this time period that exceeded national averages for urban areas. One mode of transportation, air travel, which was available as of the 1992 Land Development Plan via the Hickory Regional Airport, is no longer operational. Due to the short commute to Charlotte Douglas International Airport along US 321 and I-85, coupled with the September 11th terrorist attacks, Hickory Regional Airport was forced to close its terminal in April of 2002. Hickory is currently in the process of recruiting another service provider. However, the Piedmont Wagon Transit System and Norfolk Southern Railroad are still existent. There are also new transportation alternatives that citizens may utilize.

PUBLIC TRANSIT

- **Piedmont Wagon Transit System**



The Piedmont Wagon Transit System (PWTS) provides transportation services for the citizens of Catawba County. General public transit buses operate in Hickory, Newton, and Conover six days a week. The PWTS is managed by the City of Hickory but provides service to the Newton and Conover municipalities as part of a financial partnership in which all three cities contribute funding for the system’s operation. This transit system has the capacity to expand. However, its number of users do not merit such an enlargement. It currently services only 550 riders daily within all three cities, and most of these are considered

“transportation dependent,” meaning they use the system out of necessity. In an attempt to change the current situation, a task force was formed in 2000 to create a master transit plan that would coordinate with other transit plans, such as sidewalk and bikeway paths. Improvement recommendations ranged from adding new routes to decreasing riding time. These recommendations span a period of 25 years, but hopefully an immediate and noticeable benefit will result.

RAIL

- **Norfolk Southern Railroad**



Norfolk Southern Railroad provides rail service to Conover. This service is limited to freight only, which is an essential part of the industries in the city. The rail connectors are located along US70A into downtown and follows NC16 (one block to the east). The second rail follows lower McLin Creek Road until it reaches US 70, then runs parallel to US 70 East towards Claremont. One train a day offers freight pickup and delivery service, operating six days a week. However, up to fourteen trains a day pass through Conover.

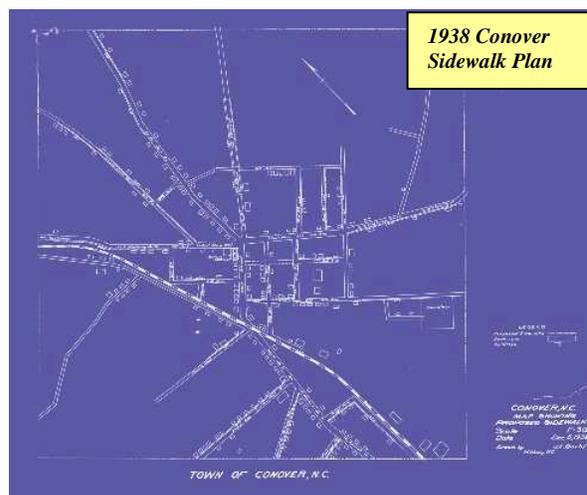
- **Western North Carolina Passenger Rail**

The former Governor Hunt's Transit 2001 Commission recommended that passenger rail be re-established in Western North Carolina. The recommended route would extend from Raleigh to Asheville via Salisbury. The route would extend through Catawba County using the existing Norfolk-Southern main line tracks. The proposed plans include the acquisition and rehabilitation of the historic train station in Hickory, which would later serve as a stop on the route. The Piedmont Wagon transit system is considering an additional service in which a bus would provide transportation for rail passengers to and from the station. While the passenger rail service was to be operational by 2005, due to budget cuts and the cost of track improvements, the project's start has been delayed and may not be operational until 2008.

SIDEWALKS / BIKEWAYS / GREENWAYS

- **Sidewalk & Bikeway Plan**

Conover has produced sidewalk plans dating back to the 1930s. While construction of sidewalks has been somewhat lacking in previous years, the Council passed the Sidewalk Plan and ordinance in 1999 that requires all developments to build sidewalks as a part of the required infrastructure. Since that time, several portions of sidewalk have now been built. It is the adopted policy that any development along the identified roadways must construct a sidewalk. The routes shown within the existing neighborhoods were selected to provide a walking loop through the neighborhood along the town streets. Those will receive priority when a sidewalk petition is received by the city following the ordinance. In areas where gaps remain and connection is necessary, the city will provide those connections through scheduled construction.



Additionally, as apart of the Newton-Conover Loop project (and the Council's commitment to building a pedestrian network) the City contracted with NCDOT to construct eight-foot wide sidewalks along the entire length of the new roadway within the city. This also provides a safe alternate connection to Shuford Elementary School and benefits all residents throughout the city. Providing safe alternatives to automobile transportation should lead to improved air quality, less congested streets, and healthier residents.

- **Gateway Sidewalk / Bikeway Connection Project**

The city was awarded over \$200,000 in state funds through the North Carolina Department of Transportation via the Transportation Enhancement Program in 2000 to construct a sidewalk and bikeway path that connects the downtown area along First Street West (US 70A) to Canova Center. These funds are also allocated to build Gateway Park, a linear park between US70A and Norfolk Southern Railroad, to serve as an active gateway into downtown from I-40.

These two portions of the project were recently completed and dedicated in May 2003. The second phase (currently not funded) includes

bikeway/sidewalk paths along County Home Road, 10th St. NW, and First Ave. North (NC 16), as well as landscaping enhancements for the I-40/US 70A interchange (Exit 130). If awarded, the total project links commercial and residential areas with four city parks.



- **Greenways**

A greenway system has been designed to utilize the floodplains along streams and creeks throughout Conover, as shown on the map. A more complete explanation of the project can be found in the Open Space section of Chapter 3, Land Use.

Greenways protect the floodplains from intrusive development, which can elevate potential flood levels. These areas should be left as natural areas or play fields with pedestrian and bicycle trails throughout the project. Being able to use floodprone land in this way benefits the citizenry with recreation and useable open space.

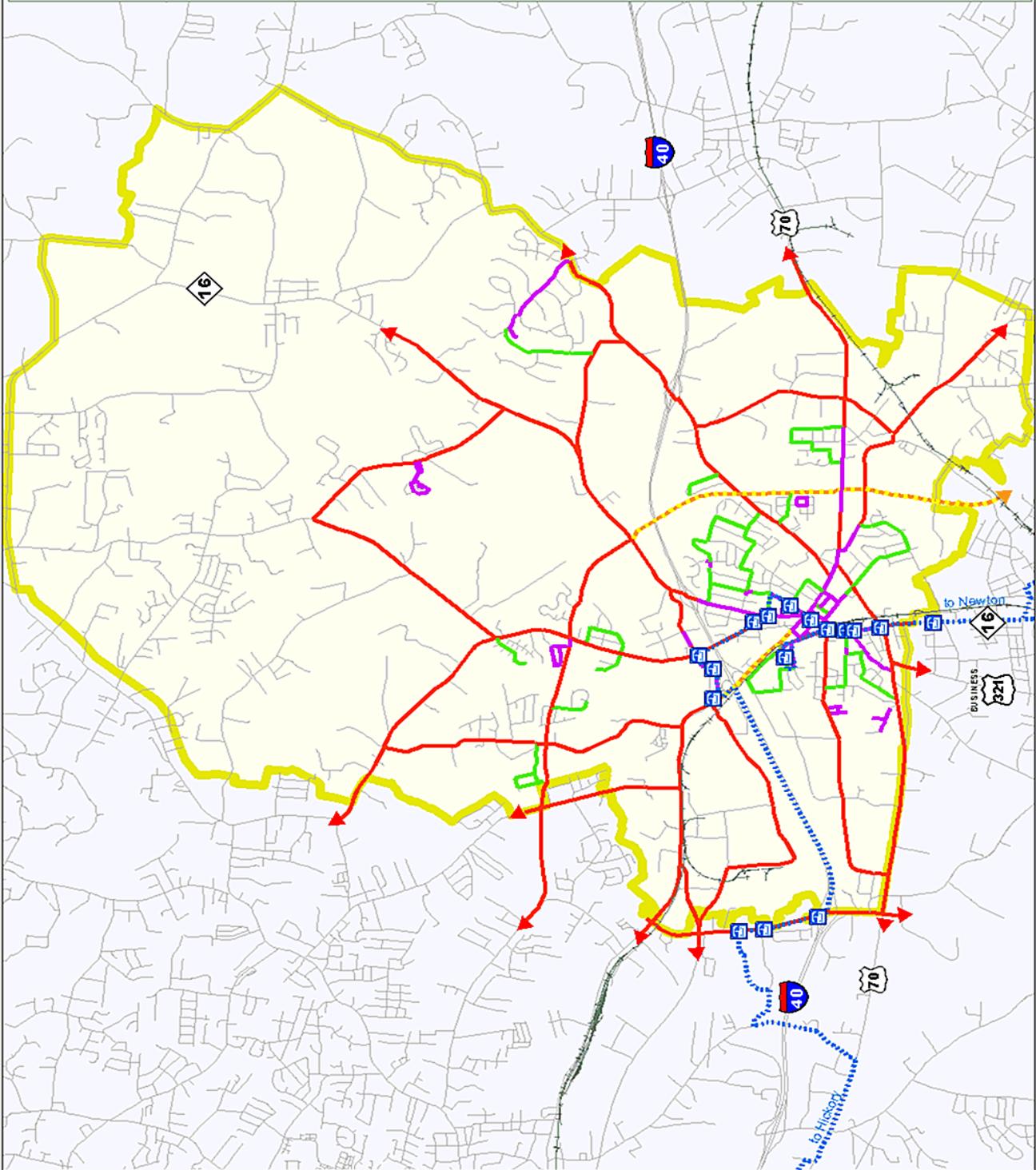
City of Conover 2002 Land Development Plan

Transportation: Alternative Transportation

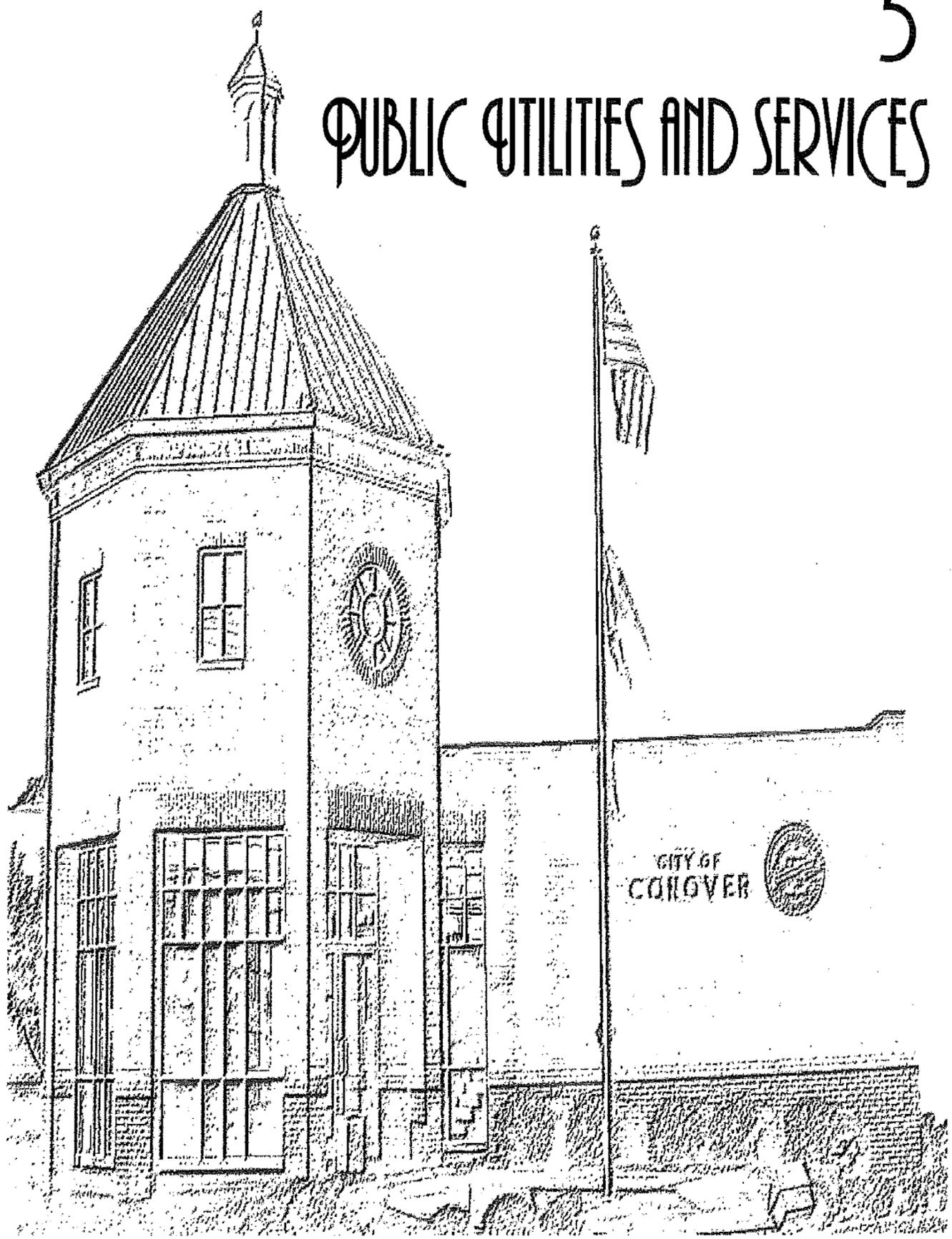
Legend

- Conover bus stops
- Bus routes
- Railroad
- Streets
- Planning area
- Sidewalks
- Existing
- Funded / Under construction
- Proposed: Neighborhood
- Proposed: Thoroughfare

Arrows indicate a proposed connection to sidewalks in other jurisdictions



PUBLIC UTILITIES AND SERVICES



Chapter Five: Public Utilities and Services

Utilities: The City of Conover Public Works Department is responsible for the urban services including water; sewer; streets; sanitation; and park maintenance. Over the previous decade, the department relocated to a new facility on 4th Street Southwest. It was previously located where the current police station is today. Public works has helped lead the way in the city by utilizing new technologies, such as Geographic Information Systems (GIS), Global Positioning Systems (GPS), Supervisory Control and Data Acquisition (SCADA), and Automated Meter Reading (AMR). Through the software program, City Works, GIS and GPS technologies are combined in such a way as to trend historical data on work-orders associated with infrastructure, such as sewer and water lines, manholes, valves, and hydrants. Public Works has also had to meet numerous federal and state mandates and quality standards.

Water Service

Water and sewer lines are two aspects of public works that indirectly mandate where new development will occur. Development generally “follows” this infrastructure, and thus its placement is more of a science than probably most presume.

As recent as the early 1980s, Conover was still operating off of a well system. However, recognizing the limitations it placed on growth, Conover entered into a regional partnership with the City of Hickory when it decided to expand the water treatment plant. The City of Conover purchases finished water from the City of Hickory, which treats surface water from Lake Hickory on the Catawba River. The plant is jointly owned by the cities of Conover and Hickory. Conover owns 3 million gallons per day (gpd) capacity and currently uses approximately 1.72 million gpd. This translates into 5,021 accounts being served daily. This partnership is beneficial to both Hickory and Conover, because through the Eastern Catawba County Partnership, Conover provides water service to Claremont and other portions of eastern Catawba County. Not only does providing water to these areas serve a neighborly function, it also helps those areas benefit from the utility tax charged by Catawba County and administered through UTAC. Although there is ample water capacity at present, customer growth will probably mandate increased available capacity soon. Additionally, from a land development perspective, by providing city water to areas outside the corporate limits, developers will be more attracted to the area. The rationale is that city water and sewer lines allow for greater density by precluding the necessity of large lots required for the placement of wells and septic tanks.



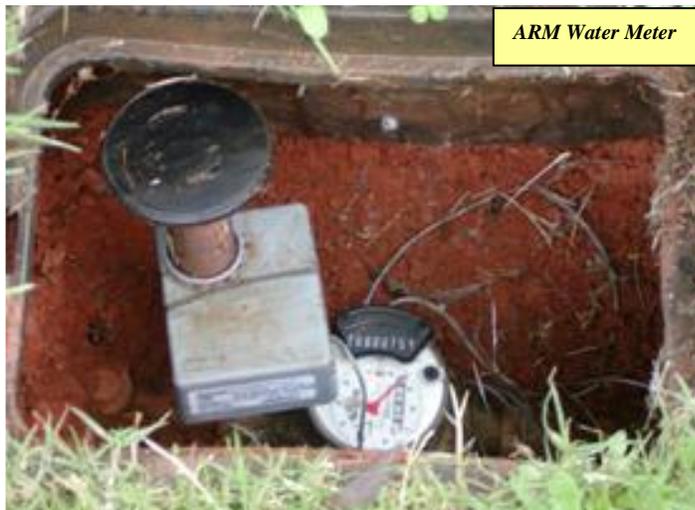
The city owns, operates, and maintains its own elevated water distribution system, which consists of 115 miles of water lines and two 1 million-gallon water storage tanks. This storage capacity is double what it was as of the writing of the 1992 Land Development Plan. However, the increase in water usage has not doubled, going from 1.1 million gpd in 1992 to 1.72 million

gpd in 2002. This is a definite advantage for the city, since storage capacity should always be equal to at least one day's usage. Thus, in 1992, usage exceeded capacity. The city had recognized this dilemma and in October, 1991, purchased 6.74 acres located on NC 16 at Shell Hollar Road (SR 1703), on which to build additional tanks. Although two tanks are sufficient at this time, there is enough land to construct two additional elevated water storage tanks if warranted in the future by growth, which can expect the necessitation of a new elevated water storage tank by 2010. Due to increased development, annexations and outside customers, the number of water customers has increased from 2,238 in 1992 to 5,021 in 2002, representing a 125% increase. The city also maintains 645 fire hydrants, a 54% increase from the 419 it maintained in 1992, and a 162% increase from the 246 hydrants in 1981. Looking to the next ten years, the number of customers is projected at nearly 10,100.

Growth is encouraged in the northern growth area where there is adequate service, meaning the established water lines loops around Herman Sipe Road / County Home Road; Lee Cline Road / C&B Farm Road; and NC16 North / Shook Road / Rock Barn Road. However additional water service should be put into place where additional loops can be placed into service with minimal line construction, existing customer base can be served and growth restricted to a reasonable area without promoting sprawl development. These next priorities for water line placement are as follows: Rock Barn Road (St. Johns Church Road to Shook Road); Houston Mill Road (Lee Cline Road to Swinging Bridge Road); Rock Barn Road (Shook Road to Oxford School Road); and Workman Street (Deborah Herman Road SW to Simpson Street SW).

It is Conover's philosophy that continued partnerships with Community Development Block Grant assistance and adjacent jurisdictions to assist and implement projected water line extensions is necessary. This is not only in the expansion of customer growth, but more importantly as a manner to supply public services (e.g., clean potable water and fire protection) at a reasonable cost to all users. It is also important that the city continue working with developers to oversize water lines through new development projects for potential extensions beyond that development for future water service.

Two major technological improvements have been implemented in the last few years. The first is



ARM Water Meter

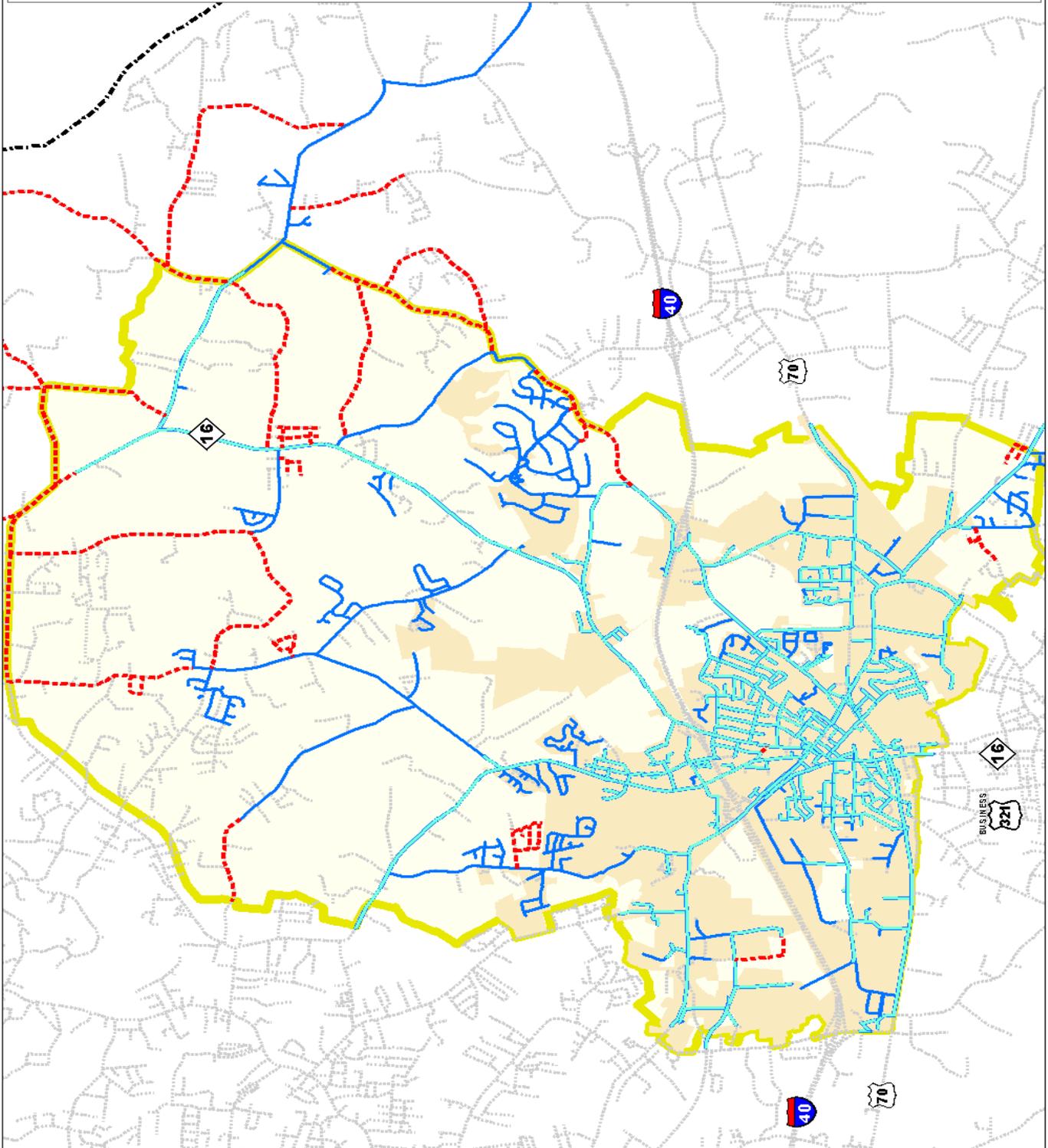
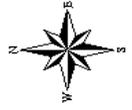
new automated meter reading (AMR) system, which utilizes a radio signal sent from a car to a water meter, was implemented in the city in 2000. With a current read rate of 98% and a reduced read time from 15 days to two, the system has proven to be a huge asset for the city. With a current customer base of 5,021, this efficient system will increasingly become more important as new areas are annexed and new customers are integrated. The second is the supervisory control and data acquisition (SCADA) program to monitor the water distribution system.

City of Conover
2002 Land Development Plan

Water Service Coverage

Legend

- Water lines: Projected
- Water lines: 1993 -2002
- Water lines:1992 & earlier
- Streets
- City limits 2002
- Planning area



This high-tech computer system allows there to be 24-hour monitoring for total water inventory, reservoir levels, and the rate of speed at which certain valves open and close. This system serves to prevent many problems that could be disastrous, such as all water valves closing simultaneously. As water lines continue to be built in new areas, constant supervision will become increasingly important to ensure water quality.

Sewer service

As mentioned earlier, the placement of sewer lines help dictate where growth will occur. Over 120 miles of sewer lines, seven pump stations, and 3500+ manholes constitute Conover's sewer line collection system. The number of users utilizing the sewer system has increased by 76%, going from 1,952 customers in 1992 to 3,433 customers in 2002. The city adheres to a strict policy that anyone wishing to connect to the sewer system be annexed into the city, since the system is paid for and maintained by the taxpayers.

The City of Conover maintains and operates two separate wastewater treatment facilities: the Southeast Wastewater Treatment Plant and the Northeast Wastewater Treatment Plant. Conover also owns 10% of the capacity in a plant operated by the City of Newton, the Clark Creek Regional Plant. These multiple plants are necessary because the city lies in three separate drainage basins, and it is easier to locate the plants at natural low topographic places rather than providing for numerous pump stations. The city also, in conjunction with Hickory, Newton, and Catawba County, utilizes the Compost (Sludge) Facility located off of Fairgrove Church Road.



The Northeast WWTP, located off of Highway 16 on Hillview Drive, has a capacity of 1.5 million gallons per day, with a daily average flow of .65 million gallons per day. This plant was expanded in 1991, more than doubling its original capacity, in order to meet requirements of the National Pollution Discharge Elimination System. After treating the water, this plant discharges into Lyle Creek in the Catawba River Basin.

The Southeast WWTP, located off of McLin Creek Road, actually contains two separate treatment facilities. The original site was built in the 1960s and the newer portion, a sequencing batch reactor facility, was added in 1985. Both parts have a total capacity of .60 million gallons per day, with a daily average flow of .35 million gallons per day. This plant has six pumping stations, and despite its age, has constantly been able to meet the stringent ammonia nitrate regulations placed on it by the government. Treated water from this plant discharges into McLin Creek. Both Lyle and McLin Creek eventually flow to the mouth of Lake Norman.

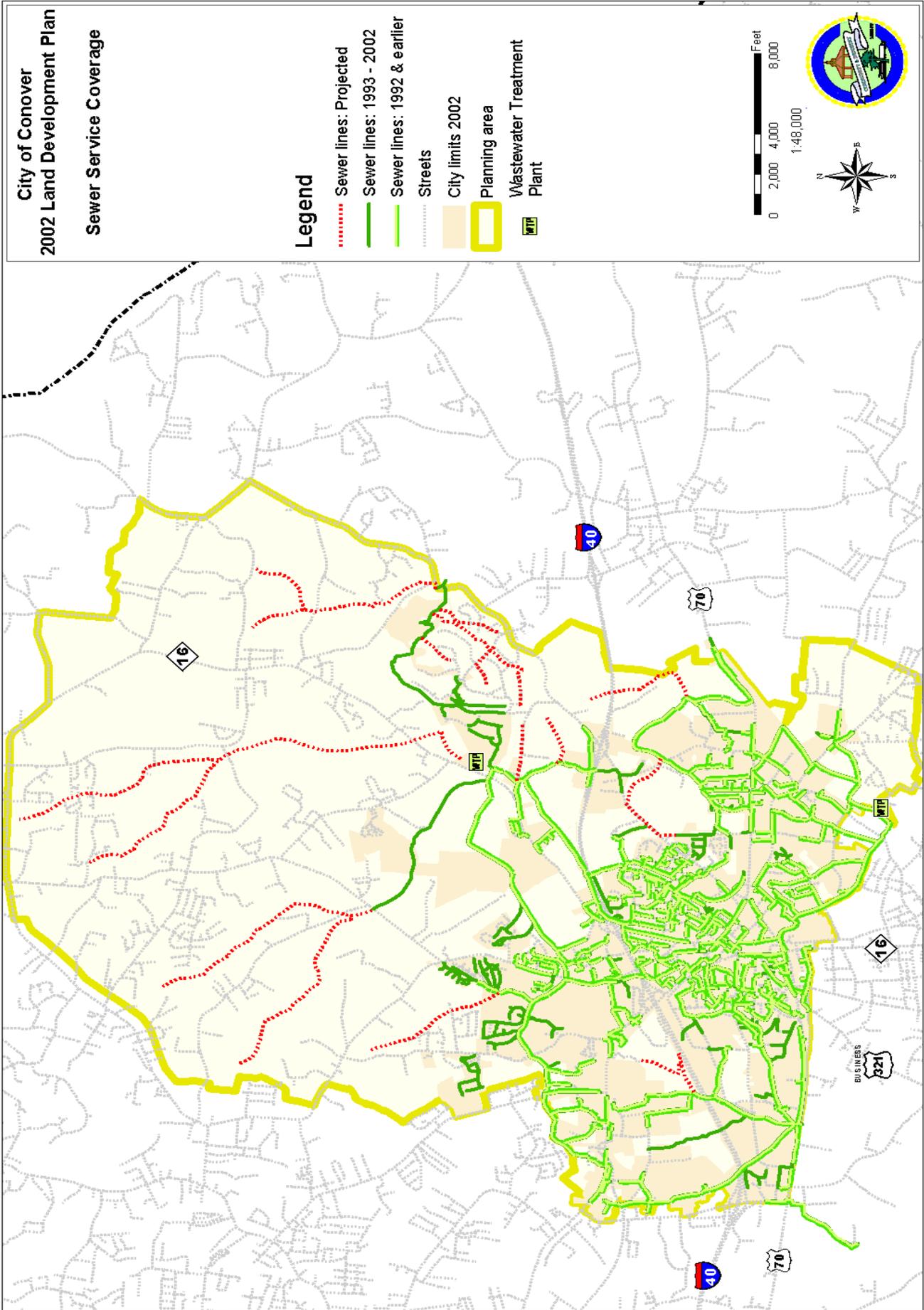
The city recently made a decision regarding the fate of the SE WWTP, because the Newton-Conover Eastern Loop Road Project, currently under construction, will literally run through the middle of the plant. Through an agreement with the DOT, the DOT will pay for the city to build new facilities in the upper portion to replace the lower portion's facility. The city has entered into a partnership with the City of Newton for plant ownership at their Clark Creek facility for the SEWWTP. The NE plant will likely require an expansion sometime in the next ten years due to the developing Northeast area of the city.



This year marked the beginning of the Overflow Response Communicator, a telemetry system installation on manholes funded by a \$43,000 grant from the North Carolina Clean Water Management Trust Fund to help keep raw sewage out of streams and rivers. This system, more vital as new sewer lines are installed and more users utilize existing lines.

The first priorities for future extensions are within areas already served by sewer service. There is available land for development within the basins where major outfall lines are in place. However, development pressure may bring about the need for extensions in areas, which are undiscernibly served, and in areas close to or within developed areas. This priority level includes the basins within Rock Barn Road / McLin Creek Road; McLin Creek / Banner Road; St. Timothy Industrial district; and St. Johns Church Road areas. Other priorities include extensions as per developers partnerships within the Rifle Range Road; Herman Sipe Road / County Home Road; and NC16 North / Rock Barn Road basins. It is Conover's philosophy that continued partnerships with Community Development Block Grant assistance and adjacent jurisdictions to assist and implement projected sewer line extensions is necessary. This is not only in the expansion of customer growth, but more importantly as a manner to supply public services at a reasonable cost to all users. It is also important that the city continue working with developers to oversize sewer lines through new development projects for potential extensions beyond that development for future sewer service.

The City is always looking at partnerships with other local governments that provides cost effective, efficient service to all customers. Conover is a proud and active member of the Utility Technical Advisory Committee, which includes Catawba County and the municipalities contained within. The main focus of this committee is to ensure that adequate utility service is provided to areas within the county that are not part of any particular municipality. The funds to provide these services come through a county-wide utility tax of 2 cents per \$100 valuation of property. By assisting these county territories, Conover benefits on several levels. For one, we are helping our neighbors have access to services they could not normally implement. We are also having direct input on how these areas should develop, which will be beneficial if any of these territories are annexed in the future. The City will continue to follow water and sewer expansion plans with coordination from our surrounding jurisdictions.



Services: Street Maintenance

The annual street service cost per resident, which includes street, sidewalk, and drainage maintenance (i.e. patching, surface treatment, and resurfacing), provision of traffic signs and lighting, right-of-way maintenance, and new street construction was \$276.57 in 2001. This is a significant amount of continual service at a very low rate. The same responsibilities in 1999 cost \$340.58 annually. This 19% decrease in cost is attributable to the increase in development along areas that were previously already being maintained. Initial residential street construction is typically the responsibility of the developers.

In the last ten years, the street division of public works was responsible for street construction that helped revitalize the downtown area's infrastructure and resurfaced many others. It also served as a support service for city projects, such as park construction and the City Hall renovations. In keeping with the last ten years' revitalization of downtown, the city plans to install brick crosswalks in several areas. This division is responsible for constructing and maintaining the new and proposed sidewalk and bikeway paths mentioned previously.



The City of Conover has approximately 75.86 miles of public streets within its jurisdiction, 14.67 miles, or 24%, more than that accounted for in the 1992 Land Development Plan. Of that total, 43.44 miles are city streets and 32.42 miles are maintained by the state. Of the city streets, the majority are paved (41.96 miles). The new development that is still under construction, Cline Village, represents the first time that residential alleys have been built in Conover, constituting .30 miles as of the present.

Sanitation Collection

The sanitation division of the Conover Public Works Department provides weekly refuse collection for single-family residents in the city, as well as small commercial areas that do not have space for a private dumpster, provided they do not generate more than 2 roll-out containers weekly.



Recognizing the importance of protecting our environment, Conover encourages all citizens to reduce waste via recycling. The city provides recycling bins, and curbside collection is made according to the household collection schedule. Routine recyclable items include newspaper, magazines, glass (clear, green, and brown), as well as

aluminum cans. The Recycle program during the year 2000 kept a total of nearly 1,211 tons of garbage from having to go to the landfill. As the population increases, recycling programs will become more important as a means of protecting and preserving our environment.

Cemeteries, Parks, and Grounds Division

The grounds and parks division of public works maintains five municipal parks, two more than in 1992. This trend will continue with new development transferring open space lands to the city as required by development regulations. The construction of road projects within the City has created additional maintenance responsibility for this division. Through municipal agreements, new trees, planted areas, grass strips and medians, utility strips, and sidewalks along with landscaping and maintenance of NCDOT right-of-ways are the responsibility of this division.



Growth for the sake of growing, unchecked and undirected is actually detrimental to the city's well being. Streets, Sanitation and Parks / Grounds divisions are an integral part of proper municipal service in Conover's growth. Land development alone is not desirable. Appearance and continual maintenance is necessary for directed and beneficial quality growth to occur. Therefore, just as funding is included for infrastructure improvements, Conover is cognizant of the fact that resources are in place for these essential services.

Public Safety

- ***Law Enforcement***

The City of Conover's Police Department is a firm believer in the effectiveness of community-police interaction for the optimal protection of residents. The department is comprised of 24 full-time officers, one civilian, and four reserve officers. This represents a 41% increase for full time officers from the 1992 data. Considering only the full-time officers, this translates into one officer for every 275 citizens.

As a mechanism to improve police protection, the department instituted a bike patrol unit that currently consists of four officers. The completion of the sidewalk and bikeway paths, as well as a focus on traditional development patterns, such as commercial nodes, will improve the mobility and effectiveness

of the bike patrol unit. As with other services, expanded city limits and an increase in citizen numbers have substantially increased the workload and police coverage required of the department since 1992. However, the department still reports an average response time of only three minutes. The police station is centrally located next to City Hall at 115 2nd Avenue NE.



- ***Fire Department***

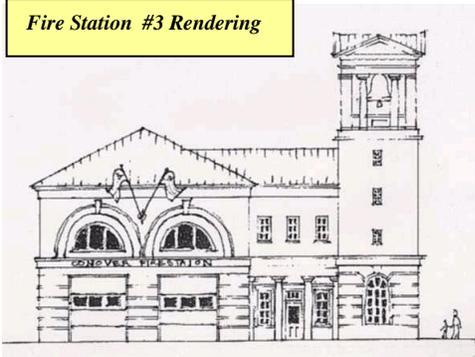
The City of Conover's fire department utilizes both full time employees and numerous volunteers. There are currently ten employees, compared to only four in 1992, as well as 35 volunteers, compared to 58 in 1992. The fire department provides protection for citizens and businesses within the city limits, as well as within the Conover Rural Fire District. The department currently operates two fire stations. Station Two is located on 1st Street West, and was first built in 1971, with an enlargement constructed in 1976. It serves primarily the northwest and southwest areas of the city. Fire Station One, located on Conover Blvd. East, was dedicated in 1996, and serves primarily the northeast and southeast areas of the city. There are plans for a third fire station near Cline Village on C & B Farm Road, to provide fire services to the rapidly developing northern areas, as well as to the Conover Rural Fire District. The design process for the proposed station began in July 2002 and construction should begin in the late 2003. With such expanded service, Conover is also considering contracting with the St. Stephens / Oxford departments to provide their fire services.

The Conover Fire Department has been preparing for an upcoming insurance grading survey, which will determine the rates that all property owners in Conover pay for fire insurance. The department is hoping to attain a class 5 rating as a result of improved and expanded fire protection services, the proposed third fire station, and the increased connectivity of streets that will result from the I-40 interchange project. In trying to provide quick and efficient fire protection to all residents, the fire department purchased a new fire truck in 2001 and, through a loan from the US Department of Agriculture, is slated to purchase two new pumpers. As land use intensifies and districts become more dense, this additional fire protection will be an invaluable asset. The Conover Fire Department receives an average of 440 calls per year, with an average response time of four minutes.

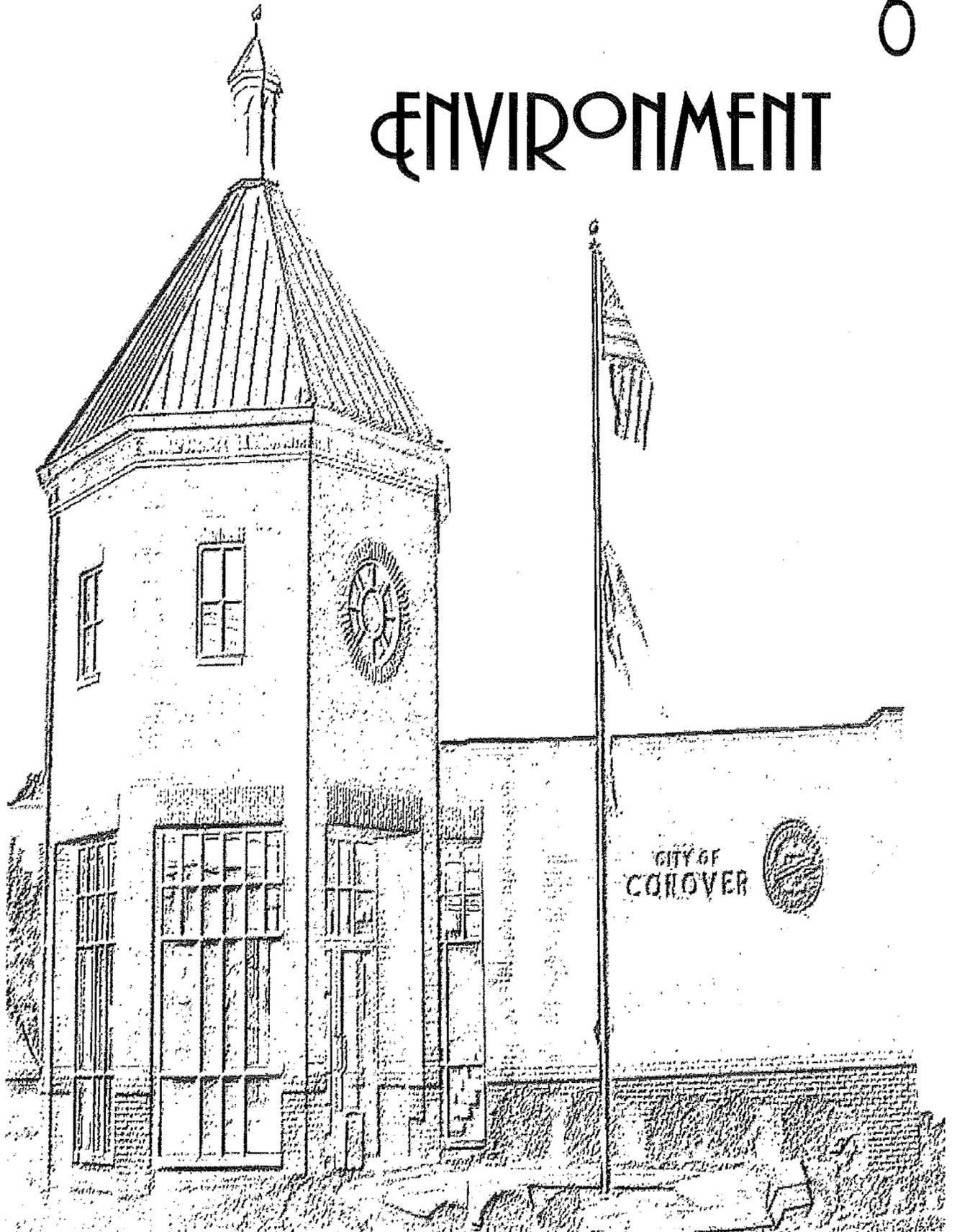


The Catawba County Communications Center dispatches the Conover Police and Fire departments through its Enhanced 911 system. By integrating GIS, the police respond with the officers assigned to that particular patrol zone and optimum fire routes are discernable, as well as the exact location of the closest fire hydrants for each call. Adequate public safety standards should be incorporated for future development with Police and Fire protection in mind.

Fire Station #3 Rendering



ENVIRONMENT



Chapter Six: Environment

Clean air and water are essential to public health, the environment, as well as the economy in Conover. Air, water, and land quality concerns are beginning to plague the Catawba County area due to increased population densities, industrial growth, and a growing dependence on the automobile. Adherence to federal and state laws, as well as educating citizens, will be key factors in Conover's pursuit of environmental health.

Air Quality

Like other municipalities, Conover must obey federal and state environmental standards, but it has also taken the initiative to join with other governments in Catawba County in achieving air quality goals. Through the Catawba Air Quality Committee (CAQC) and the WPCOG, Conover, along with other Unifour jurisdictions, recently adopted the Early Action Compact and has developed a set of prioritized items for improving air quality.



The Early Action Compact (EAC) is an agreement between the North Carolina Dept. of Environment and Natural Resources (DENR), the U.S. Environmental Protection Agency (EPA) Region 4 office (Atlanta) and ten (10) local governments. The local governments are Alexander, Burke, Caldwell and Catawba Counties and the municipalities of Hickory, Newton, Conover, Morganton, Lenoir and Taylorsville. The EAC represents a partnership of Local, State and Federal Agency efforts

to develop a State Implementation Plan (SIP) for the Unifour Area. It includes the memorandum of agreement, the protocol for the local EAP and the overall SIP development and schedule.

The Unifour Area currently violates the new EPA 8-hour ozone standard of .08 parts per million (ppm) for ozone. Our area's two ozone monitors, in Lenoir and Taylorsville, have three-year averages of .086 and .091 respectively. These numbers are slightly over the new standard. In April of 2004, EPA will designate new nonattainment areas in the United States and this area will be designated based upon our three-year average. The nonattainment designation is something that Conover wants to avoid due to the tremendous negative effects upon our economic development and transportation planning activities. Higher ozone values also indicates that the negative impacts upon the health of our citizens, especially the young and elderly, is increasing.

The EAC serves two major purposes: the delay of implementation of nonattainment penalties until 2007 and an obligation to prepare the SIP by December 31, 2004 rather than 2007. If this is successful, we will all breathe cleaner air sooner. If there is a reduction of ozone values below .08 ppm by 2007, the area will not have the nonattainment designation at all.

The City of Conover has already accomplished two of the proposed suggestions by establishing landscaping standards for parking lots and encouraging Smart Growth tactics. Agriculture planted in parking lots is not only aesthetically pleasing, but also provides a system of carbon dioxide absorption. Smart Growth encourages compact development, thus automatically reducing the need for automobile travel, which in turn decreases the toxic automobile emission level. Conover also supports the expansion of the Piedmont Wagon Transit System and, through the sidewalk/bikeway paths, hopes that automobile transportation will decrease.

Water Quality / Storm Water Management

The city has also had to adhere to the federal Clean Water Act, which will become even more important as the population density increases. The Clean Water Act mandates water quality standards and has recently begun to focus in on point source pollution also, such as storm water. Through the lab facilities at the wastewater treatment plants and the new telemetry system manholes, Conover has already taken initiatives preserve water quality. However, storm water management will become more important and difficult to manage as development decreases natural filtration system.



non-
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Storm water runoff is the rain or snowmelt, mixed with pollutants such as oil and pesticides that it absorbs, that runs off streets, rooftops, parking lots, lawns, and other land surfaces.

Historically, open ground space served as an adequate filtering system, which prevented excessive amounts of untreated water from flowing down storm drains directly into the streams and rivers. However, constant development has increased the amount of sidewalks, curbs, and gutters at the expense of open land. The federal government, through the Environmental Protection Agency and the Clean Water Act, has recognized the vast amounts of untreated water that are entering our lakes and streams and has made storm-water management a top priority. Currently, the City of Conover is classified as a Phase II area, requiring that they take steps to inform the public of the dangers, involve the public in their decisions, and formulate an action plan if there were a major pollution of our water sources, such as a major oil spill. However, it is recognized that with more street construction and residents, there is the possibility of Conover becomes Phase III status, which will require a special drainage basin specifically for storm-water runoff. This water will then need to undergo a treatment process before being dispensed back into the streams.

The laboratory at the NEWWTP continually analyzes Conover's water quality. Staff continues to be innovative in developing monitoring, testing and advance early detection systems.

Development Constraints

Though often unnoticed, natural environmental features, such as soils and wetlands, must be thoroughly analyzed and be a top priority when considering new development and land use. Some areas are not suitable for development, and we as citizens, must learn to accept that and work with, not against, our natural surroundings.

- ***Topography and Soils***

A topography analysis is useful in determining locations that may be a concern for future development. Slopes of 10-25 % are considered to have moderate to severe limitations for development, requiring a detailed review prior to development. Generally, slopes in the Piedmont region of North Carolina do not limit development to the degree that the Foothills and Mountain regions do. While some severe slopes are present within the study area, they are typically concentrated along creek banks.

It is recommended that slopes of over seven percent (7%) are precluded from terracing or benching development practices for “slab” or “on grade” built homes on small lots. This development type is only suited for less severe slopes due to excessive land grading and drainage problems which arise. Building construction with basements or crawl spaces is



more conducive to sloping grades. It is also recommended that no building construction is permitted on slopes over twenty percent (20%) due to the severe slope, unless extreme care is taken and precautionary measures are included during construction to prevent soil erosion.



The Catawba County Soil Survey, prepared by the US Department of Agriculture, indicated the suitability, degree, and type of limitation for dwellings, septic fields, industrial development, and roads. Development limiting soils, such as Congaree, Chewacla, and Worsham, were identified as floodprone or poorly draining, while four soil subtypes of three other soils, Cecil, Pacolet, and Madison, were identified as having severe and/or eroded slopes. These soil types are generally found within and along creeks. Although most soil types within Conover are highly suitable for development, individual site analysis should always occur prior to development.

- ***Floodplains***

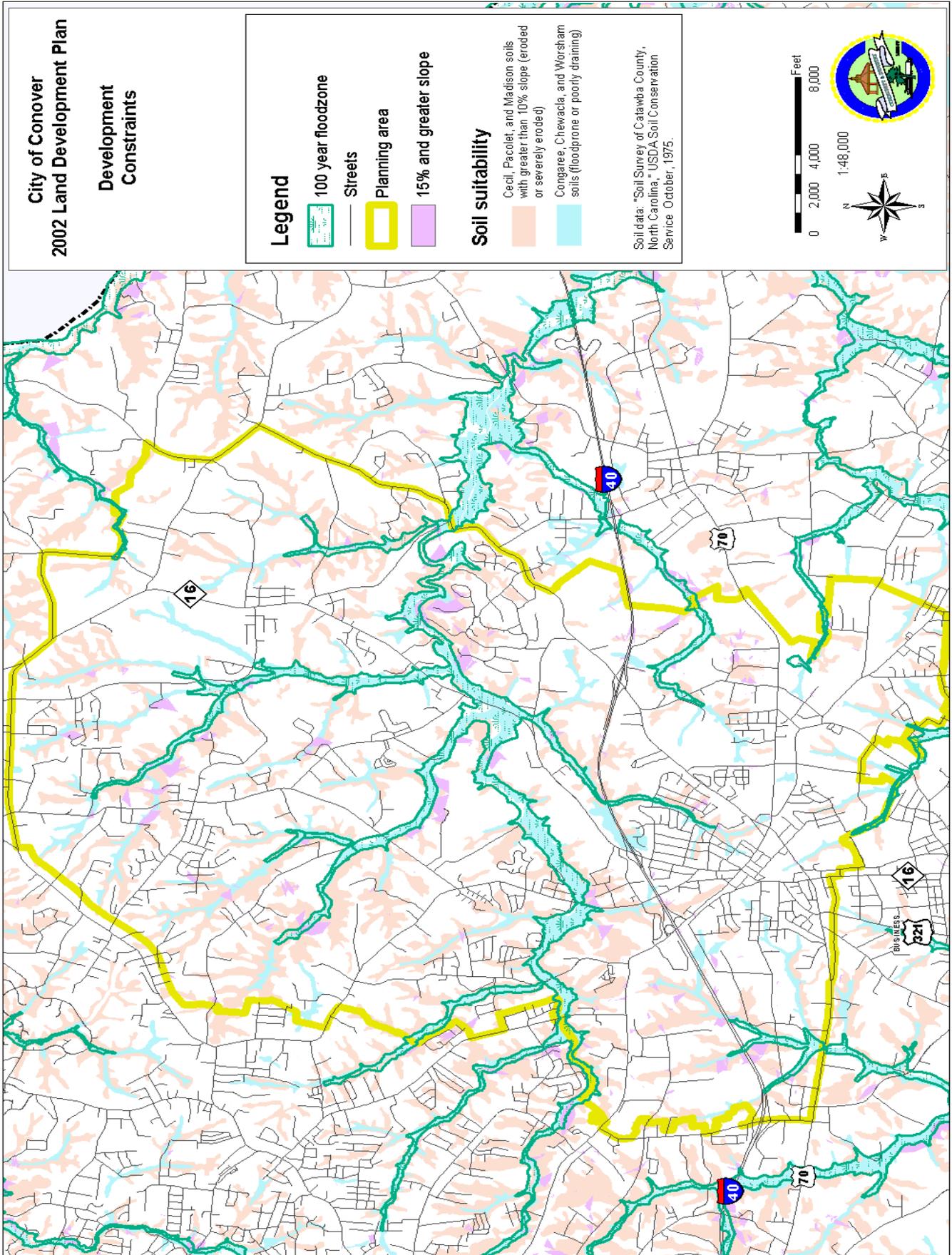
The most recent flood study for Conover was done in 1980 by the Federal Emergency Management Agency (FEMA). This study identified the 100-year floodplain and flood hazard area for the city, including portions of Lyle, Mull, Mclin, Cline, and Conover Creeks. Special development regulations, such as floodproofing, must be adhered to for any structures to be built in these areas. Development within the floodway (the area adjacent to the creek) is prohibited. Overall, development within flood prone areas is highly discouraged by the city.

Floodplains do serve important functions in providing an area for creeks to overflow during flood events, as a buffer for toxins before entering the stream and potential recreation or land preservation opportunities (see the Open Space section of Chapter 3 Land Uses). As is obvious by the 1980 date, the city needs an updated floodplain study and accompanying maps, however, the federal government is responsible for this process. Land within designated floodplains is discouraged for development of structures.

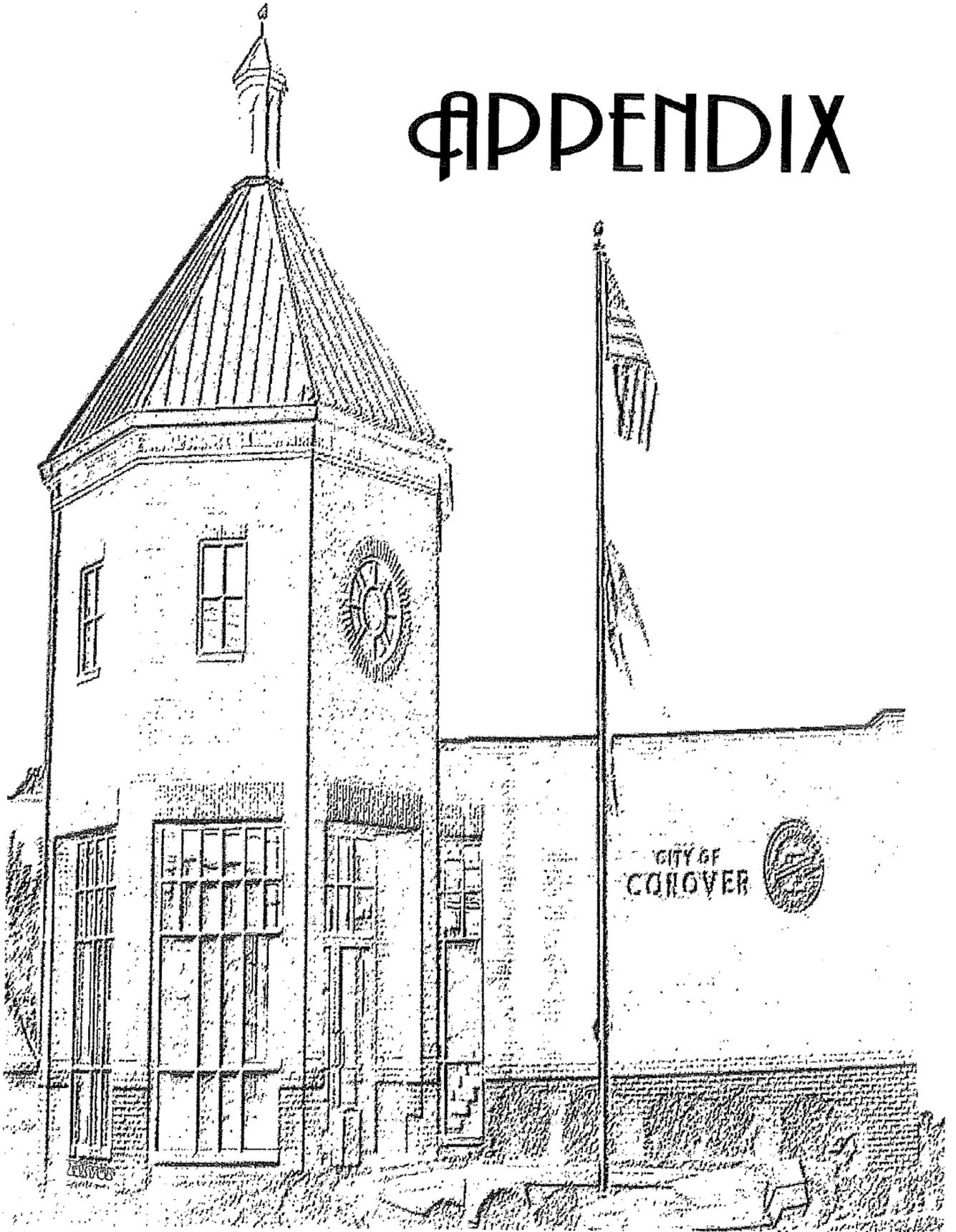
- ***Water Supply Watershed Protection***

A 1989 North Carolina General Statute established the “Water Supply Watershed Protection Act,” which serves to protect the raw drinking water supply for the citizens of North Carolina. The final regulations and classifications were adopted in 1992 by the Division of Environmental Management, a division of the NC Department of Environment, Health, and Natural Resources. In compliance with the act, the city adopted a zoning ordinance in 1993 that established the Water Supply Watershed Protection District. For clarification, a watershed is a large area of land from which water contributes to only one stream or river.

A small portion of Conover, in the Lake Norman watershed, is classified as a WS-IV protected area and includes the eastern fifth of the city. This area basically extends from the NE WWTP south through Brian Drive and McLin Creek Road to the Emmanuel Church Road and Travis Road intersection.



APPENDIX



2003 Land Development Plan

Conover North Carolina

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CITY OF CONOVER GROWTH ANALYSIS

	1960	1970	1980	1990	2000
Population	2281	3255 (+42%)	4245 (+30%)	5465 (+29%)	7367 (+34.8%)
Area	1.84 sq. mi. (1177.6 ac.)	2.24 sq. mi. (1433.6 ac.) (+22%)	2.6 sq. mi. (1664 ac.) (+15%)	6.03 sq. mi. (3856.3 ac.) (+132%)	9.29 sq. mi. (5943.8 ac.) (+54.1%)
Annexations	n/a	7	23	64	66
Area Annexed	n/a	.4 sq. mi. (256 ac.)	.36 sq. mi. (230.4 ac.)	3.43 sq. mi. (2192 ac.)	3.05 sq. mi. (1952.1 ac.)
Assessed Valuation	16,407,728 *	36,795,000 (+124%)*	118,116,655 (+221%)	372,554,612 (+215%)	820,283,211 (+220%)
Tax Rate	.50 **	.52 **	0.48	0.40	0.36
Tax Levy	82038	191,334 (+133%)	566,960 (+196%)	1,490,218 (+162%)	2,951,241 (+198%)
Building Permits In Dollars	n/a	8,998,050 prev. 10 yrs.	12,400,666 prev. 10 yrs.	69,371,631 prev. 10 yrs.	231,885,772 prev. 10 yrs.

* Figures adjusted up from 6,563,091 (1960) and 14,717,964 (1970) when assessments were made at 40% of value.

** Figures adjusted down from 1.25 (1960) and 1.30 (1970) when assessments were made at 40% of value.

^ Figures adjusted for vehicle billing; 1991 - 1998 are actual, 1999 is an estimate.

FY 1990-91 and FY 1999-2000 were County revaluations.

CITY OF CONOVER GROWTH ANALYSIS

	1995	1996	1997	1998	1999	2000	2001	2002
Population	6374 (+3.7%)	6477 (+1.6%)	6911 (+6.7%)	7015 (+1.5%)	7135 (+1.7%)	7367 (+3.3%)	6645* (-9.9%)	6871 (+3.4%)
Area	6.77 sq. mi. (4338.4 ac.) (+2.5%)	6.81 sq. mi. (4361.7 ac.) (+ .5%)	8.51 sq. mi. (5449.2 ac.) (+24.9%)	9.07 sq. mi. (5807.9 ac.) (+6.6%)	9.24 sq. mi. (5916.3 ac.) (+1.8%)	9.29 sq. mi. (5943.8 ac.) (+.5%)	9.59 sq. mi. (6135.14 ac.) (+3.2%)	9.73 sq. mi. (6221.48 ac.) (+1.4%)
Annexation	6	2	8	6	9	5	8	5
Area Annexed	.16 sq. mi. (105.52 ac.)	.04 sq. mi. (23.33 ac.)	1.7 sq. mi. (1087.5 ac.)	.56 sq. mi. (358.7 ac.)	.17 sq. mi. (108.42 ac.)	.04 sq. mi. (27.45 ac.)	.3 sq. mi. (191.34 ac.)	.14 sq. mi. (86.34 ac.)
Assessed Valuation	543,087,357 (+5.9%)	608,899,397 (+12.12%)	629,296,751 (+3.3%)	644,253,028 (+2.4%)	797,493,130 (+24.1%)	825,605,951 (+3.5%)	858,798,271 (+4.02%)	866,188,636 (+.86%)
Tax Rate	0.38	0.38	0.38	0.38	0.36	0.36	0.36	0.38
Tax Levy	2,046,010 (+5.3%)	2,269,970 (+10.95%)	2,370,894 (+4.4%)	2,448,457 (+3.3%)	2,885,333 (+17.84%)	2,964,243 (+2.73%)	3,080,164 (+3.91%)	3,291,517 (+6.86%)
Building Permits In Dollars	18,379,730	28,793,421	27,812,115	24,197,537	35,970,876	40,061,683	21,431,890	21,716,167

* Based on the 2000 Census actual count. Previous population figures were from NC State estimates.

2002 Assessed Valuation and Levy are an estimate as of December 31, 2002.

FY 1999-2000 were County revaluations.