

# Preventing Strip Commercial Development: A Pilot Study in Wake County, North Carolina

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Visual experiences along major thoroughfares create some of the first, strongest and most lasting impressions of a community. Residents and visitors form opinions about the quality of life of an area based on what they see from the roadway. A positive image may affect people's choices about where to work, live, locate businesses, retire, or visit. Therefore, the quality of roadside development is a key factor in determining not only people's perception of an area, but ultimately, the economic well-being of a community.

In December 1989, the Wake County Board of Commissioners expressed concern about strip development along major thoroughfares throughout the county. The board asked the planning staff to explore ways to encourage appropriate development along various types of thoroughfares, to maintain the carrying capacity of roadways and the visual quality of their surrounding landscape, and to accommodate the use of public transit. The board placed special emphasis on the issue of eliminating the county's Highway District zoning classification, which allows a very broad range of land uses.

In response to the board's concerns, the Wake County Planning Department began a pilot study of the NC 55 and US 64 West highway corridors in western Wake County. These rural, two-lane highways were chosen in anticipation of increased development pressure due to the widening of US 64 West and the proposed alignment of the Northern Wake Expressway (west of the US 64-NC 55 intersection).

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## What is Strip Development?

Strip development is characterized by congested roadway corridors lined with a variety of car-oriented commercial land uses such as gas stations, convenience stores and fast-food restaurants. These corridors usually lack features which reflect the distinctive character of a community and often convey a cluttered, repetitive image, indistinguishable from other strips. Inappropriate land uses, insufficient building setbacks and landscape buffers, large expanses of surface parking, and visually intrusive signs are some of the undesirable characteristics which shape the negative image of strip development.

In addition to its unappealing visual quality, strip development adversely affects the function of roadways. The primary purpose of major thoroughfares is to safely carry through traffic. However, poorly planned roadside development with frequent driveways and turning movements conflicts with this function, resulting in congestion and hazardous traffic conditions. Because major thoroughfares are substantial public investments, it is in everyone's best interest to keep them safe and uncongested.

## How Does Strip Development Occur?

Major thoroughfare corridors generally evolve from rural highway corridors into continuous commercial strips, following five phases of development:

*The Pastoral Highway:* Two-lane country roads lined by agricultural uses which offer pastoral landscapes, rural scenery and undisturbed vegetation. Traffic volumes are generally well below the road's capacity, and access points are few and far between.

*Convenience Stores and the Lonesome Billboard:* The rural landscape remains intact, but is dotted with billboards and an occasional convenience store, gas station, or restaurant.

*Public Improvements and Speculation:* Roadway im-

provements improve access to adjacent properties, while the construction of water and sewer lines raise land values and increase interest in developing these corridors. Commercial development at this stage generally occurs in small increments.

*Scattered Strip Development:* Numerous parcels of agricultural and residential land fronting the highway have been converted to commercial uses. Large shopping plazas or shopping centers begin to appear. Most of the small out-parcels of remaining vacant land are for sale for commercial uses. The highway's function as a through-corridor has been diminished as traffic volume and the number of turns has significantly increased. Numerous signs and other devices compete for the attention of motorists.

*Continuous Strip Development:* Commercial land uses occupy virtually all land fronting the highway. Numerous signs divert the driver's attention from the roadway. Numerous curb and median cuts, turning movements, and vehicles slow traffic and create hazards. Traffic volumes exceed the carrying capacity of the roadway, requiring construction of additional travel lanes.

As development along roadway corridors progresses through various phases of strip development, solutions for controlling land use, the visual character of development and access onto highways become increasingly limited and difficult to implement. Therefore, it is essential to achieve these objectives in the earliest phases of development.

### The Pilot Study Area

The pilot study area includes land within a 1,500- to 2,000-foot wide corridor along NC 55 and US Highway 64 West in western Wake County. Most of the land along both highways was zoned Highway District. Much of the study area falls within Wake County's designated Perimunicipal Planning Area, where urban development is expected to occur within the next 10 to 15 years. All of the US Highway 64 West corridor located outside the Perimunicipal Planning Area is within the Jordan Lake water supply watershed.

### Development within the Pilot Study Area

The planning department gathered information on existing land uses, zoning, lot configuration, and visual resources. This information was used to determine each corridor's phase of development and to select the most appropriate techniques for preventing strip development and mitigating its negative effects.

Both highway corridors appear to be in the first or second phase of the five phases of strip development. The primary existing land uses within the pilot study area are agricultural, residential and vacant (cleared farmland which is not presently being cultivated). Both highways are rural in character; however, nearly three-

quarters of the lots directly adjacent to either highway are zoned Highway District, which allows a variety of urban uses with a special use permit. In addition, over half the lots adjacent to each highway have frontage of 400 feet or more, allowing them to meet access spacing requirements applicable to non-residential uses within Highway District zoning. If these larger sized lots were subdivided, the county would find it increasingly difficult to coordinate development plans to control access and visual intrusions along these highways.

Vistas, water bodies, natural vegetation, and an absence of signs define the visual character of these highway corridors. Views of sweeping pastoral scenery with rolling hills, cultivated fields, farm-related structures, farm ponds, and mature stands of hardwoods and pines abound.

The visual character of both corridors remains intact, with the exception of a few non-residential uses visible from the roadway. There is only one billboard in the pilot study area. About half of the land along both highways features scenic vistas of the countryside, while the remaining land is wooded.

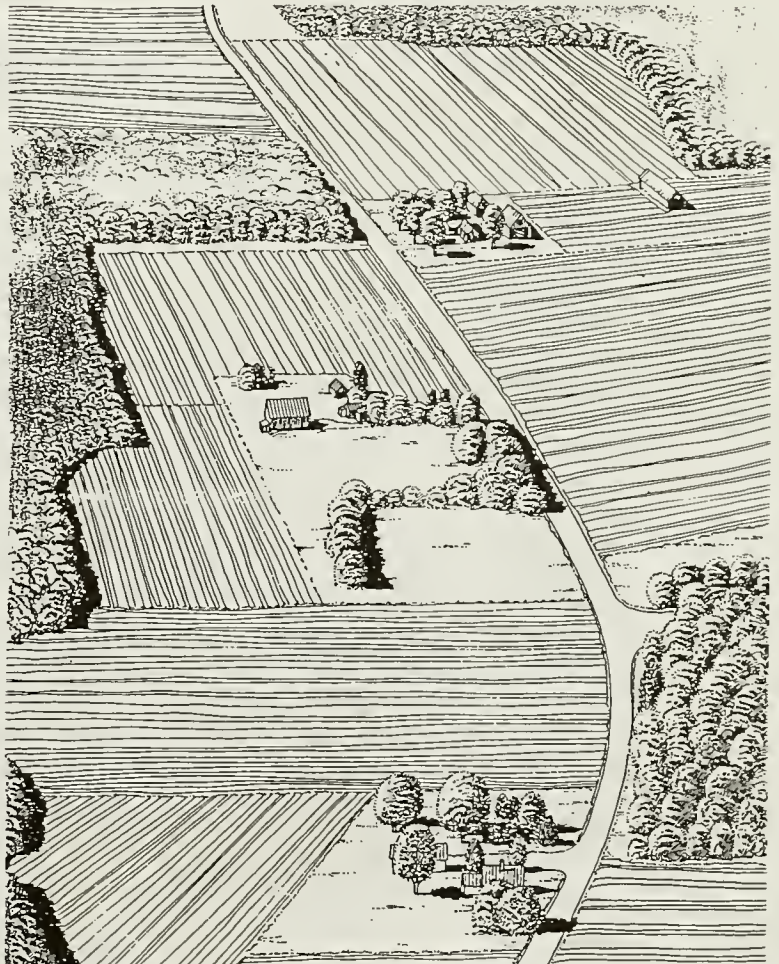


Figure A. Aerial View Before Development

## Alternatives to Strip Development

To help the board envision how planning and regulatory tools could be used to prevent strip development, the pilot study used the following illustrations from *Dealing With Change in the Connecticut River Valley* (published by the Lincoln Institute of Land Policy and the Environmental Law Foundation in 1989).

**Figure A** illustrates a typical two lane rural highway, similar to NC 55 and US 64 West. Land within 400 feet of the roadway is zoned highway commercial and permits a variety of non-residential roadside uses. Land adjacent to this commercial corridor is zoned for low-density, single-family residential use.

**Figure B** illustrates the typical pattern of development resulting from this conventional zoning approach. Each commercial use has been allowed direct access from the highway and separate signs. Parking is provided in front of the buildings, with little landscaping to screen structures or parking from the roadway or adjacent uses. Ingress and egress points provide local access, but conflict with faster moving through-traffic. Residential land behind the commercial corridor has been cleared of trees and retains little of its existing visual character.

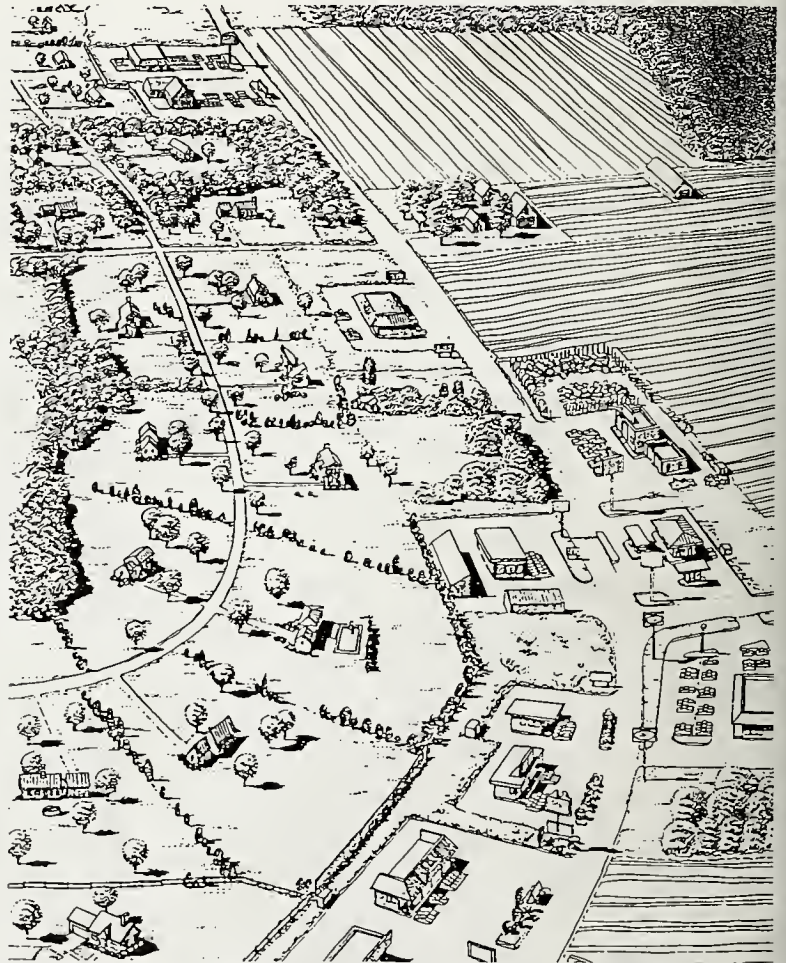
**Figure C** represents an alternative pattern of development. The same types of land uses are permitted and the overall density is maintained, but the area's visual quality remains intact. This is accomplished by controlling land uses and signs, clustering buildings, retaining and using existing vegetative buffers, and using shared access points. Access is shared among clusters of well-screened commercial buildings, providing spacious vistas for passing motorists and retaining the free flow of through-traffic. Single-family homes are also clustered and screened. The overall design is sensitive to the area's existing landscape and allows farmers to supplement their income by selling off a portion of their property while retaining a larger portion for agricultural uses. This approach may be particularly useful along corridors outside of the Perimunicipal Planning Areas. The clustering of uses within these municipal transition areas would also provide more efficient use of public services such as water, sewer and transit. The clustering of non-residential developments may also provide a more pleasant pedestrian experience than strip commercial development.

## Recommendations and Actions

The pilot study envisions adequate non-residential development in appropriate locations along attractive and uncluttered thoroughfares which accommodate safe and convenient travel. The study calls for control of land uses, control of the visual character of new development, and control of direct access onto thoroughfares. In February 1991, the Wake County Board of Commissioners endorsed these recommendations and requested the Planning Department to initiate the following actions:

### *Control Of Land Uses*

1. Use the Wake County General Development Plan to guide land use decisions along the pilot study corridors. For the corridor segments within the Cary and Apex Perimunicipal Planning Areas, use the land use designations of the detailed joint land use plans to guide rezoning and special use permit decisions. Joint plans for the two towns were incorporated into the General Development Plan in December 1990.
2. Concentrate commercial land uses within the activity



**Figure B. Aerial View After Conventional Development**

nodes designated on the joint plans.

3. Redefine non-residential land uses allowed within Highway District zoning to coincide with the land use designations of the joint plans.
4. Eliminate Highway District zoning within the non-Perimunicipal Planning Area portion of the pilot study, and rezone this area to the appropriate watershed zoning districts (R-40W or R-80W).

#### *Control Of The Visual Character Of Development*

1. Establish or refine requirements for planting landscape buffers, retaining existing vegetation, maintaining minimum building setbacks, and orienting buildings and parking areas away from thoroughfares and toward internal collector roads. Require close adherence to appropriate county regulations and design guidelines when considering requests for rezonings, special use permits, driveways, and median cuts.
2. Encourage cluster development through the site design and review process.
3. Prohibit or severely restrict signs and billboards along

major thoroughfares.

#### *Control of Direct Access Onto Major Thoroughfares*

1. Limit direct access onto thoroughfares to coincide with key intersections with major collector roads and with appropriately designed median cuts. Use internal collector roads to provide adequate access for future development.
2. Work with the North Carolina Department of Transportation to ensure that median cuts are limited to appropriate locations.
3. Accommodate the use of public transit through the site design and review process.

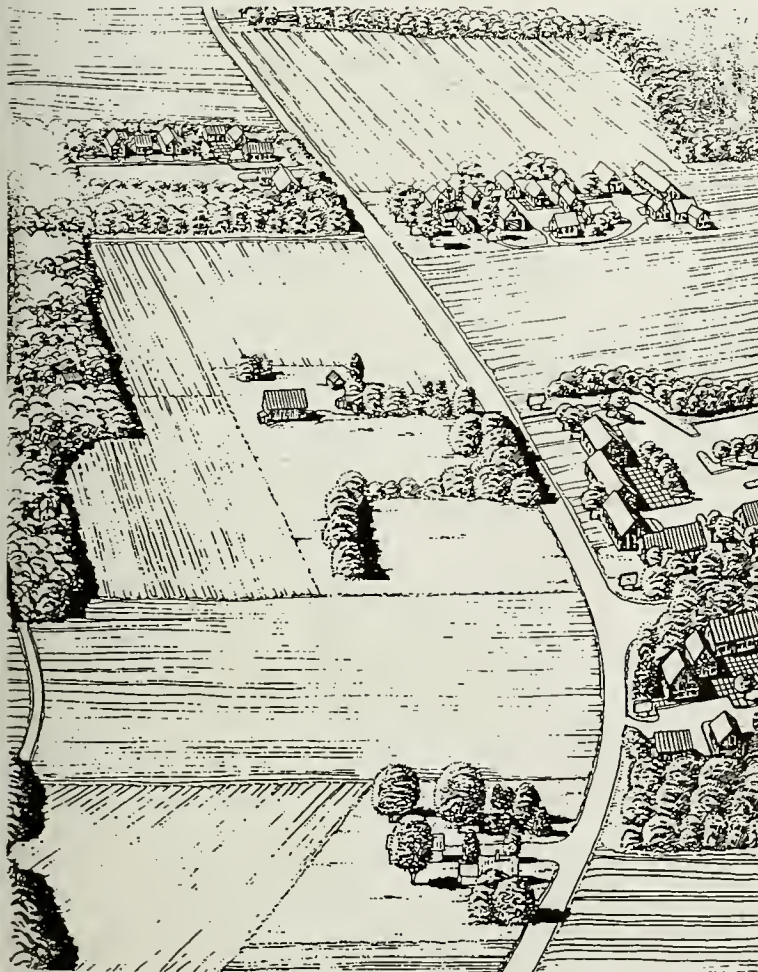
#### **Progress Report**

In August 1991, the Wake County Board of Commissioners implemented the rezoning of all property within the US Highway 64 West corridor and outside of the Apex Perimunicipal Planning Area from Highway District to low-density residential water supply watershed districts. Parcels were rezoned to Residential-40W in the non-critical portion of the watershed (40,000 square foot minimum lot size) and Residential-80W in the critical portion of the watershed (80,000 square foot minimum lot size).

The two highways addressed in the pilot study are representative of a dozen thoroughfares in the county with extensive Highway District zoning. However, the roadway cross-sections, existing land use patterns, and visual characteristics of each thoroughfare corridor may be quite different. The Wake County Planning Department intends to replicate this study to determine for each corridor, the most appropriate strategy for addressing concerns about Highway District zoning and strip commercial development.

The planning department is currently working with several municipalities to prepare joint land use plans that include other major thoroughfare corridors in the county. Once the joint plans are approved, department staff will begin preparing rezoning proposals for these corridors.

The remaining actions recommended by the pilot study and endorsed by the board will be addressed as part of the planning department's current work program, which includes preparing a comprehensive plan and rewriting the county's zoning and subdivision regulations.



**Figure C. Aerial View After Creative Cluster Development**