

to 22,000 vehicles created an intimidating environment for residents trying to cross East Boulevard by foot or travel by bicycle. The street did not fit the context of the neighborhood, nor did it accommodate the needs of walkers, bicyclists, and transit users.

After neighborhood meetings and careful analysis, the City decided to take on East Boulevard as one of its earliest “road-diet” projects, with the first phase completed in 2004. The new cross-section eliminates two motor vehicle lanes and provides bike lanes, center-turn lanes, built-in traffic calming, and numerous pedestrian refuges. While the project was not without controversy, the Mayor and City Council continued to provide their support throughout planning and construction. The end product not only improved conditions for pedestrians and bicyclists, but also reduced automobile crashes while carrying the same volume of traffic as before. East Boulevard is now a successful example of how Charlotte has embraced a “complete streets” philosophy.

Why Complete Streets?

The City of Charlotte has many streets similar to East Boulevard – streets that were built or widened in the post-WWII era when maintaining vehicle ‘throughput’ was the primary consideration. Rather than focus on traditional road widening, the interest in complete streets arose from the recognition that Charlotte would need more creative ways to accommodate growth, support economic development, and improve access to expanding transit services. Complete streets provide transportation choices because they are designed to serve all users rather than just automobile drivers. As described by the National Complete Streets Coalition, “pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street.”

By the 1990s, the public also began to demand better streets that were safer, more comfortable for all users, and fit the urban context in which they were built. For example, a biannual telephone survey of city residents routinely finds that roughly 80% of Charlotte residents believe streets should be designed to accommodate all users. A visual preference survey conducted in 2004 found that residents preferred the tree-lined streets of Charlotte’s historic streetcar suburbs over those built in more recent subdivisions. In addition, concerns about speeding and a lack of pedestrian and/or bicycle facilities have been a recurring theme voiced during neighborhood meetings and by local advocacy organizations.

This local input complements recent national studies that show an increasing preference for walkable communities. A 2007 survey by the National Association of Realtors and Smart Growth America found nearly 90 percent of respondents believe that “new communities should be designed so we can walk more and drive less, and that public transportation should be improved and accessible” (Smart Growth America 2007). A Brookings Institution report predicted that, with changing

Complete Streets in Charlotte: Turning Policy into Projects

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Editors’ Note: The annual NCAPA conference will be held in Charlotte this year. This article highlights some of the city’s ongoing efforts aimed at improving transportation options for all residents.

Neighborhood residents had mixed feelings about East Boulevard, a minor arterial street and important shopping and dining destination in the heart of the City of Charlotte’s Dilworth neighborhood. The four- to five-lane undivided street was seen by some residents as a separating barrier within the community. Wide crossing distances, high vehicular speeds, and daily traffic counts of 20,000



East Boulevard, Charlotte. Before and after complete streets improvements.
Images courtesy of Charlotte DOT.

demographics, mixed-use walkable neighborhoods would be part of the next real-estate boom (Leinberger and Doherty 2010).

Projects on the Ground

Charlotte ultimately responded to the community's desire for better streets with the development of its Urban Street Design Guidelines (USDG). With the adoption of the USDG policy in 2007 and changes to city ordinances in 2010, Charlotte is now able to implement complete streets through the full range of activities that affect city streets,

such as public sector capital projects, area planning, public/private sector partnerships, and private sector development.

The City began implementing its complete streets philosophy into capital projects (as best practices) three years before the USDG became official city policy. To date, Charlotte has constructed \$88 million worth of complete streets projects designed using the USDG. One of the first series of projects was the South Corridor Infrastructure Program (SCIP), built in conjunction with the construction of Charlotte's first light-rail line in order to improve access in the station areas. As part of SCIP, the City modified the Woodlawn/South Boulevard intersection, through which 50,000+ vehicles travel daily. The context warranted improved motor vehicle capacity while also enhancing pedestrian and bicycle access to the Woodlawn Station.

In the past, intersection widening to increase motor vehicle capacity often resulted in decreased levels of service for pedestrians and bicyclists. At the improved Woodlawn/South Boulevard intersection, the City increased both motor vehicle capacity and pedestrian and bicycle levels of service with landscaped medians, pedestrian refuges, wider sidewalks, planting strips, and bike lanes.

Streetscape and road-diet projects, such as the East Boulevard project discussed earlier, also provide excellent opportunities for creating complete streets. Before removing travel lanes to address speeding problems, improve safety, and provide better facilities for pedestrians and bicyclists, Charlotte DOT carefully analyzes traffic patterns to ensure that the project will not significantly degrade motor vehicle travel. The growing number of streetscape, road-diet, or lane-diet projects has greatly contributed to the over 50 miles of bike lanes now striped within the city.

The City works to ensure that complete streets are implemented through a broad variety of city projects and plans. For example, the City applies the USDG block length and street-type recommendations during the area-planning process, as planners work with the public to identify future street connections to support the plan. Charlotte has also been careful to ensure that even smaller-scale street-related projects advance the goal of better streets. For example, sidewalk retrofits, handicap-accessible ramps, and pedestrian countdown timers are small but important contributions to creating complete streets.

Charlotte has also created complete streets through public-private partnerships. For example, the Metropolitan redevelopment replaced a traditional indoor shopping mall and surrounding surface parking lots with a 16-acre mixed-use development incorporating national retailers, office space, and residential condominiums. The scale of the project provided an opportunity for the City to coordinate with the developer for transportation network improvements, including street and bridge construction, complete street cross-sections, and the daylighting of a creek to help extend a regional greenway. An internal private street built by the developer provides additional connectivity. The City also worked with NCDOT to reconfigure nearby interchange ramps to better accommodate pedestrians and bicyclists and tie the Midtown area to Uptown.

While some development projects provide an opportunity for public-private partnerships, the majority of land development is affected most directly by the City's land development ordinances. Since the early 2000s, the City has required wider sidewalks and planting strips in certain pedestrian-focused zoning districts. City staff was able to achieve appropriate transportation improvements on conditional rezonings, such as complete street cross-sections, on-street parking, or increased connectivity within and to adjacent parcels. In late 2010, after a review process with local developers, the City Council formally adopted changes to Charlotte's ordinances to further implement complete streets through private development processes.

Lessons Learned

Charlotte has learned many valuable lessons during its years of applying complete streets. The lengthy implementation timeframe was a lesson in itself, as it illustrates that a change in philosophy can take time. The Charlotte DOT benefited from strong leadership and open-minded designers and engineers who were willing to consider and adapt to a complete streets approach.

Getting projects on the ground is critical to building community awareness of and support for complete streets. Through its capital improvement program, Charlotte established a five-year track record of implementing complete streets that enhance neighborhoods and provide transportation mode choices while allaying fears of increased congestion or negative impacts to property values.

Achieving development industry acceptance was also important to the recent adoption of subdivision ordinance changes. Private sector feedback led to practical improvements in the proposed ordinance language. One of the main challenges of writing this ordinance was providing for appropriate design flexibility while ensuring that expectations and requirements are consistent and predictable for all developments.

Implementing complete streets requires that designs (and designers) must be flexible to fit within existing urban contexts. A variety of cross-sections and design treatments are essential, as well as thoughtful processes for applying

them. For example, providing a hardscaped amenity zone instead of a grass planting strip in areas with frequent loading or unloading of passengers, or providing dedicated on-street parking adjacent to apartments but not large lot single family homes, are relevant design tradeoffs built into the USDG. Staff also was careful to create subdivision ordinance language that specified context-based street design requirements based on the development type.

Finally, it is important to recognize that complete streets are about providing effective transportation choices that serve all users, including motorists. For example, intersection projects can increase capacity while using designs that improve service for pedestrians and bicyclists. Likewise, road-diets in some contexts can be an efficient way to improve service for bicyclists and pedestrians, while maintaining appropriate levels of service for motorists.

Charlotte's experience with complete streets is reaping positive results. The early question of "why complete streets?" is rarely raised now that these effective practices have been demonstrated on the ground across the city. Adopting a complete streets philosophy and implementing it into all projects, both public and private, that affect Charlotte's streets represents a significant step towards improving the public realm and expanding transportation choices for all residents.

References

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