



7.0 Implementation

Cumberland Avenue Corridor Plan Implementation

A successful transformation of a city district begins when engaged and committed stakeholders devise a visionary plan, and it becomes real over time with realistic and thorough implementation steps. There is considerable agreement about the desired future for the Cumberland Avenue corridor among the diverse group of Knoxville stakeholders, and one of the points of agreement is that no one wants to see the plan simply put on a shelf. Many in the planning process recall past plans to change Cumberland Avenue that have never moved forward. The steps outlined below are meant to get the project going while realizing that it is currently not the only area of the city with a redevelopment agenda.

Implementation Structure

The Cumberland Avenue corridor is of key interest to a number of important stakeholders: City government, the University of Tennessee, Fort Sanders Regional Medical Center, the East Tennessee Children's Hospital, the Tennessee Department of Transportation (TDOT), the historic Fort Sanders neighborhood and the property owners and merchants along the street. Yet, until this study began, these players didn't have a platform for regularly discussing issues in this important district. From the outset of the study, these stakeholders voiced the need for changes to the corridor. This initially took the form of their participation on a diverse Advisory Committee staffed by the MPC.

Advisory Committee members worked closely to review and give advice on the work of the consultant team and participated in regular public meetings. Discussions during Advisory Committee meetings aired a number of issues and concerns and helped inform the planning process. The high degree of trust and communication among Cumberland Avenue stakeholders that emerged from this process is important to make the most of this new set of working relationships.

Recommendations:

- **Continue regular meetings of the Advisory Committee at the request of the Mayor of Knoxville and the University Chancellor.** Meetings should be held on at least a quarterly basis, and the work of the Advisory Committee should be staffed by the MPC. It's important that stakeholders continue communicating on a high level, and that participation be a priority to existing members. Members of the city's C-7 committee should be invited to participate.
- **Name a project coordinator based in city government.** Implementation of the Cumberland Avenue Corridor Plan is first and foremost a City of Knoxville function. Cumberland Avenue is a major city street leading directly into downtown, funding will most likely be public, and the regulatory mechanisms necessary to accomplish the redevelopment will be based in city ordinances. In the press of other redevelopment projects in Knoxville, this study will have difficulty being implemented unless someone has responsibility within city government for seeing that it move forward on a day to day basis.

Funding

The Cumberland Avenue Corridor Plan charts the course for street and streetscape improvements as well as new pedestrian connections and public realm improvements. It makes a strong statement about the relationship between public improvements and private reinvestment, and anticipates that a variety of funding sources will be explored to support the work.

Recommendations

- **Amend the TPO's current long range plan and three-year Transportation Improvement Plan.** Get the lane reconfiguration and streetscape project in the approved list of projects for funding. Ensure that the required local match is budgeted year to year.
- **Consider establishing the corridor as a redevelopment district so that tax increment financing can be used as a funding tool.** The City has the ability to capture revenues generated by private investment in the corridor through the use of tax increment financing (TIF). With this tool, public investments like the Cumberland Avenue streetscape and the Mountcastle Park redevelopment can be financed through bonds based on the incremental increase in property values that will be gained over time as redevelopment occurs. This mechanism was recently used to fund public improvements in the Knoxville South Waterfront area.

While a market analysis has not been conducted for this study to determine its development potential, the urban design plan calculated that approximately 130,000 square feet of new commercial use and more than 1,400 residential units are possible on key sites likely to develop over the next 20 years. This amount of development, calculated roughly at \$200,000/residential unit and \$200/square foot of commercial use, could conceivably result in over \$280 million in new private investment. Further financial analysis will be necessary to determine more accurately the feasibility of using TIF for this corridor.
- **Explore the potential of creating a business improvement district.** This could be a new BID for the area, or an extension of the downtown business improvement district to include the Cumberland Avenue corridor. This could provide a self-taxing tool that could fund improvements to the district. It is important that property-tax-exempt entities such as the University agree to participate on a pro-rated basis.
- **Explore the potential for State funding** through allocation of capital dollars to the University for improvements that directly affect University property and provide benefit to improved University connections.

Cumberland Avenue Streetscape

It is clear from public and stakeholder input and analysis of the physical conditions, as well as traffic modeling, that the three-lane configuration is the best alternative to balance the overall needs of the Cumberland Avenue corridor. The three-lane configuration will provide wider sidewalks and streetscape, accommodate transit and deliveries, slow traffic, increase safety and operate at acceptable vehicular levels of service.

It is strongly recommended that reconfiguration occur as part of the proposed streetscape plan in one complete project as opposed to a first-phase re-striping. This “all or nothing” approach is recommended because the true benefits of the reconfiguration (adding wider sidewalks, streetscape, transit and service delivery pull-outs and on-street parking) are only achieved with the street reconstruction. A simple re-striping would have a punitive impact on vehicular traffic without any positive impact on the pedestrian environment and proposed private development opportunities, resulting in an unbalanced “testing” of the concept.

Recommendations

- **Prepare preliminary streetscape design and engineering plans so reconstruction can begin in 2009.** TDOT has requested that no work be done on any east-west corridors in the downtown area until its reworking of I-40 downtown is complete sometime in 2009. The goal is to have the necessary streetscape design and engineering work complete for the project to begin construction as soon as I-40 is reopened.
- **Work with the Advisory Committee to prepare a maintenance of business plan for construction.** A critical part of the successful implementation of the streetscape plan will be to minimize the disruption to businesses along the corridor. A maintenance of business plan will define the construction phasing, business signage and public outreach activities necessary to create as little disruption of ongoing commerce in the district as possible.
- **Develop a Fort Sanders Neighborhood Traffic Calming Plan.** Based on the recommendations of the Fort Sanders Neighborhood Plan (2003) and the potential traffic diversion of the Cumberland Avenue three-lane conversion, a formal traffic calming study and implementation plan should be developed for the Fort Sanders Neighborhood and hospital campuses to mitigate any speeding and traffic diversion.

- **Target Cumberland Avenue as a premium (fixed-guideway) transit corridor.** The number of existing transit routes in the area, along with the adjacent transit-supportive uses of the hospitals and University, suggests that Cumberland Avenue is, and will continue to be, an important transit corridor. A long-term strategy for transit in the corridor should consider fixed- guideway technologies such as light rail or streetcar. One unified service and transit technology along Cumberland Avenue would simplify transit operations by reducing and/or eliminating bus operations on the corridor.

Streetscape Cost Estimate

The conceptual nature of the plan makes it difficult to accurately detail actual costs given the projects many variables, including material choice, furnishing, and utility issues. These estimates are therefore for planning purposes. More detailed design plans will be required to more accurately estimate costs.

Table 3: Streetscape Cost Estimate

Item	Quantity/Unit	Unit Cost	Subtotal	Description
Roadway	Lump Sum	\$2,500,000	\$2,500,000	3-lane, textured left-turn
Sidewalk Amenities	Lump Sum	\$400,000	\$400,000	Concrete sidewalk, paver utility strip, benches, trash cans
Street Trees	150	\$1,200	\$180,000	100-gallon shade trees, 25 feet on center
Ground Planting	7,000 s.f.	\$5	\$35,000	Ground cover and irrigation
Ornamental Lighting	100	\$3,000	\$300,000	Pedestrian-scale lighting, 50 feet on center
Traffic Signals	3	\$120,000	\$360,000	
Subtotal			\$3,775,000	
10% Design Fees			\$377,500	
25% Contingency			\$943,750	
5% Mobilization			\$188,750	Construction trailers, staging sites, etc.
5% MOT / MOB			\$188,750	Maintenance of business, traffic. Coordination with businesses on timing & schedule, maintaining access, etc.
2% Permits / Fees			\$75,500	
7% Construction Admin.			\$264,250	
Total Estimated Cost			\$5,813,500	

Notes: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc. has no control over the cost of labor, materials, or equipment, the contractor’s method of determining prices or competitive bidding or market conditions. Therefore, our opinions of probable construction costs provided for herein are made on the basis of experience and represent our best judgment as landscape architects familiar with the construction industry. The firm cannot and does not guarantee that proposals, bids or the construction cost will not vary from our opinions of probable costs. If the owner wishes greater assurances as to the construction cost, we recommend the employment of an independent cost estimator.

Utilities

An assessment of the utilities (gas, water, sanitary sewer, electric and storm water) was conducted to determine the constraints and opportunities they provide. This assessment drew upon existing sources of information available from the Knoxville Utilities Board (KUB), the City of Knoxville Storm Water Division and field visits. Primary focus was placed on the feasibility and potential cost of utility upgrades or modifications (i.e. burying overhead utility lines) that may be considered as part of potential streetscape alternatives. Existing utilities along the Cumberland Avenue corridor area are of sufficient size and carrying capacity to serve the redevelopment envisioned in this plan.

Recommendations

- **Work with KUB to develop a Utility Master Plan for the Cumberland Avenue Corridor.** There are a number of utility upgrade opportunities (sanitary sewer, storm water, natural gas and water) KUB anticipates for the future that should be coordinated with the proposed Cumberland Avenue streetscape. A carefully developed master plan for the utilities in this corridor that is coordinated with future streetscape construction may result in savings to the overall project and to KUB. Additionally, one entity should be designated for the overall responsibility and authority to develop the utility master plan and conduct its implementation as a portion of the overall corridor redevelopment.
- **Evaluate relocation options for overhead utilities.** The majority of the electrical service along Cumberland Avenue is overhead with most of the buildings fed from the back alleys. Putting this main conductor underground is possible, however, any relocation of this line would have to be performed on a wholesale basis along the entire portion of Cumberland Avenue to minimize the disruption to existing businesses, and to maintain redundant feeds required by the medical facilities. There are two potential relocation options; 1) relocate to the alleys, estimated cost is \$1,100,000 (excludes traffic control, permitting, and paving cost). 2) relocate under ground, estimated cost is \$2,300,000 (excludes traffic control, permitting and paving cost).
- **Identify funding opportunities.** As with most construction projects, especially those involving multiple utilities, funding will be a major hurdle to overcome when considering redevelopment or relocation of utilities within the project area. While all utilities interviewed in preparing the utility evaluation have expressed a willingness to work together in relocating or moving utilities, it was stressed that the magnitude of costs associated with the work will require funding assistance.

**Table 4:
KUB Utility Estimates for Cumberland Avenue Corridor Plan**

Item	Relocation in Alley	Relocation Underground
Electric	\$1,100,000 (1)	\$2,300,000 (2)
Gas	\$200,000	\$200,000
Water	\$2,700,000	\$2,700,000
Waste Water	\$45,000 (3)	\$1,250,000 (4)
Total Estimate	\$4,045,000 (5)	\$6,450,000 (5)

Notes:

- (1) Relocate electric lines to alleys
- (2) Relocate electric lines underground
- (3) Inspection Cost
- (4) Potential upgrade & replacement of waste water lines
- (5) The estimates do not include any costs for Traffic Control measures (permits, designs, equipment, etc.) and other associated permits (Site Development, ROW, Street Cut, etc.) Also, estimates do not include costs for final paving. It is assumed that the final paving work would be part of the overall project.

Private Redevelopment

Knoxville stakeholders are aware that planned improvements to Cumberland Avenue must be integrated with other key goals of the district: higher quality and greater variety of commercial and residential uses, improved public realm, improved parking resources, better connections in and outside of the district, safety, and commercial appeal and vitality. The urban design plan for the corridor illustrates key areas and projects that can set the stage for the entire vision to be achieved over time as opportunities arise. Considering that the district is experiencing considerable development pressures, the following recommendations are a priority.

Recommendations

- **Rewrite the C-7 Design District Regulations.** Use the form-based recommendations of the Cumberland Avenue Corridor Plan as a basis for developing a specific Cumberland Avenue Corridor Design District Development Code for the corridor, replacing the C-7 guidelines now in place. Organize the design regulations around street frontages to regulate the placement, height and form of buildings based on the nature of the street they front on. Redefine the C-7 District to include the full block on either side of Cumberland (to White and Lake Avenues) to recognize the importance of full blocks and the likelihood that development will begin to occur in larger increments.
- **Implement the revised C-7 Design District Regulations quickly.** Redevelopment along the corridor is occurring and the new standards need to be in place to properly guide development. Move the new form-based guideline through the adoption process by the Metropolitan Planning Commission and City Council as soon as possible.
- **Prepare and distribute a Cumberland Avenue Development Brochure.** Create a development brochure that can be distributed to developers and property owners interested in redevelopment. This brochure should serve as a marketing tool for the corridor that communicates the vision of the plan, outlines the development code, and energizes private development activity.

Mountcastle Park Redevelopment

The need and desire for a new public space in the Cumberland Avenue area was clearly expressed by the public during design sessions. The potential of Mountcastle Park, an isolated and underutilized open space bounded by Terrace and Lake Avenue and Mountcastle and Nineteenth Street, to address this need was identified quickly. In addition to the Cumberland Avenue reconfiguration and streetscape, the proposed reconfiguration of Mountcastle Park is a critical public project that will act as a catalyst for redevelopment and provide a unique physical and symbolic connection to the University and hospitals. The design and implementation of this project can come in a variety of ways but will require involvement from the City, the University, hospitals and private developers.

Recommendations

- **Integrate the Cumberland Avenue Corridor Plan into the University’s Campus Master Plan.** The University should amend its current Campus Master Plan to integrate the proposed corridor improvements and the urban design plan, particularly the Mountcastle Park reconfiguration, with proposed new housing locations directly related to the park and University.
- **Get City approval for park reconfiguration.** The reconfiguration of the existing Mountcastle Park (owned by the University) will require City approval based on the requirement that the park remain as public open space. The design scenario proposed envisions “swapping” land to maintain the same amount of open space but reconfigured to connect to Cumberland Avenue.
- **Identify potential development partners.** The extended park to Cumberland Avenue will need to be created in conjunction with the redevelopment of the adjacent block. The City and University should identify potential developers and assist in supporting this block’s redevelopment by helping to assemble parcels and providing funds for the park’s construction.

Parking

Parking is perhaps the single problem most commonly mentioned by area stakeholders. The public parking that does exist in the corridor is limited to on-street spaces on the side streets which are not well monitored or regulated. This results in the almost exclusive use of the on-street spaces by University or hospital users rather than by visitors to Cumberland Avenue. The off-street parking lots are privately owned and tightly controlled, creating a very negative and confusing impression to visitors. The pressure to better address parking resources is only going to grow, and will hurt commerce and land values if not addressed.

Increasingly, cities are beginning to treat downtown parking as a utility, a resource and service that is critical to the public and private sectors, rather than an end in itself. The goal here is to use a comprehensive approach to managing parking resources that will lead to innovative strategies for shared parking and greater use of cutting-edge parking technologies such as parking debit cards. Nashville has a parking authority that now manages a significant portion of downtown parking spaces. Chattanooga adopted a downtown parking strategy several years ago in part to help better manage parking for its growing tourism industry. The local transit authority provides this comprehensive management for the city of Chattanooga.

While strategies to create new public parking structures should be explored in conjunction with more dense development of the area, the most efficient short-term parking options can come through developing a comprehensive parking management strategy. This strategy would better use current parking resources by increasing the effectiveness of parking facilities, reducing parking demand and improving support strategies such as enhanced parking information, marketing and enforcement. For a good discussion of parking management strategies applicable to Cumberland Avenue, see “Parking Management Best Practices,” by Todd Litman, Planning, Oct. 2006, pp. 40-45.

Recommendations

- **Conduct a parking study** to assess current and projected district parking needs, evaluate shared parking options, explore increased use of transit, and evaluate possible locations and funding sources for new public structured parking. Talk with other cities that approach parking as a utility to determine possible advantages and disadvantages for Knoxville. Explore examples of shared university/city parking structures or initiatives.

- **Consider development of public parking lots/structures in strategic locations in the corridor.** These lots could be developed in cooperation with the University and hospitals, “piggybacking” on their pre-existing plans for parking facilities to either create shared, off-hour parking agreements or fund additional public spaces within their structures.
- **Consider creating a parking authority** to better manage parking resources, possibly in conjunction with downtown Knoxville. This authority could help facilitate the creation of shared parking agreements between properties and create and manage public parking resources. Consider using a portion of parking revenues to provide funds for new structured parking or improved transit services.
- **Update existing on-street parking meters** (many of the existing ones do not work) and regularly monitor parking to ensure a turnover that allows these spaces to be more accessible to Cumberland Avenue visitors.
- **Explore the utility of creating a residential parking permit** for resident parking only on certain streets at certain times in the Fort Sanders neighborhood to relieve residential parking pressures in the district.
- **Consider using the supply of public parking as a way to minimize private, on-site parking requirements.** The proposed urban design plan envisions approximately 130,000 square feet of ground floor commercial use, which would result in the need for 520 parking spaces at 4 spaces/1,000 square feet of commercial use (conservative, suburban standards). Public parking spaces could be used to reduce this requirement and potentially serve as an incentive to developers. Table 5 illustrates how a public parking supply could reduce private on-site spaces needed.

Table 5: Estimate of Public Parking

Total Spaces (4/1,000) for 130,000 s.f. of commercial	Private on-site spaces needed	Potential Public Parking Supply	Estimated Cost at \$20,000 per space (structured)
520	520 (4/1,000)	0	
520	390 (3/1,000)	130	\$2.6 million
520	260 (2/1,000)	260	\$5.2 million