

## Chapter Four: TRANSPORTATION

### Objectives and Strategies

Objective 1: Implement the Thoroughfare Plan with development opportunities to ensure that roadway improvements are committed.

When a new development generates enough traffic to require additional road or intersection capacity, the need to coordinate transportation elements and new land uses becomes critical. The Thoroughfare Plan is based upon the Future Land Use Map, and roads are constructed, phased and/or deferred according to the Plan. It is extremely important that adopted land uses and transportation networks be monitored over time to account for variations in land use and traffic patterns.

- A. *Maintain Capital Budgets...* that aggressively and responsibly provide for future roadway improvements. The City should make good faith efforts to address existing deficiencies and future needs and ensure that private developments address transportation impacts.
- B. *Comply with the Future Land Use Map...* and its development potential to manage the impacts of new development on the road network.
- C. *Coordinate with Development...* to obtain roadway improvements that mitigate associated transportation and fiscal impacts through established funding methods in the capital budget process.
- D. *Continue Modeling Efforts...* into the future to monitor land use and transportation needs and evaluate the impact of potential changes to the adopted Future Land Use Map and Thoroughfare Plan.

Objective 2: Maintain an acceptable balance between public and private sector responsibilities for roadway improvements.

The fiscal analysis of the Community Plan demonstrates that the City cannot bear all of the costs for necessary road improvements and maintain its financial strength. Impacts to the community's transportation network should be considered as a development cost for projects. A clear balance between responsible and managed growth and the impacts of such projects should be achieved.

- A. *Assess Private Development...* for its fair share of base transportation costs, according to the Thoroughfare Plan, particularly for major road improvements such as bridges and underpasses. Proportional costs should be based on studies or other means acceptable to the City.
- B. ~~Utilize~~ Use *City Participation...* in transportation improvements when the project or development contributes to greater community-wide objectives.
- C. *Require Traffic Impact Studies...* for ~~all developments~~ developments outside the Bridge Street and West Innovation Districts that significantly increase peak hour traffic or create operational conflicts or impacts such as turning movements, driveway locations, etc. Studies will determine the magnitude of roadway improvements required to accommodate traffic generated by the proposed development while maintaining acceptable service standards. For projects within the Bridge Street and West Innovation Districts, other studies are planned to determine the magnitude and timing of roadway improvements necessary to accommodate the traffic generated by the proposed development.

- D. ~~Utilize~~ Use *Financial Mechanisms...* such as Tax Increment Financing (TIF) to facilitate major transportation projects as part of private development.

**Objective 3: Maintain a quality LOS standard for Dublin's network, while acknowledging the need to consider alternative mechanisms for major intersections with congestion and capacity issues.**

Traffic congestion is consistently identified by Dublin residents as a concern, despite major improvements such as Emerald Parkway, Hard Road and bridge upgrades and connections. As the Dublin area develops, levels of traffic moving through the City will continue to increase. The desire to attract businesses that generate revenue to support quality services also creates additional traffic impacts. As a result, some major intersections and corridors within Dublin will experience traffic congestion and delay during traditional peak hours despite future improvements. To maintain the City's attractiveness as a premier employment and residential location, Dublin must provide acceptable and reasonable LOS standards while maintaining a balance with other quality of life issues.

- A. *Apply Minimum Base Standards...* of LOS "C" to activities pertaining to municipal street and roadway improvements unless a lower LOS is acceptable to the City ~~under extenuating circumstances~~ in key corridors. Phasing of development within specified time horizons may be acceptable.
- B. *Set Private Development Requirements...* for new projects and significant expansions of existing developments contingent upon maintaining an LOS "D".
- C. *Consider Alternative Mechanisms...* such as extended peak periods and innovative design options for key intersections that will always have LOS issues.

~~D. Promote Travel Demand Management (TDM) Policies... that will reward companies that choose to reduce the amount of traffic they generate during peak periods. Monitor the effectiveness of TDM-based parking incentives in the Bridge Street District zoning regulations.~~

**Objective 4: Balance the needs of traffic capacity and roadway aesthetics.**

Providing ample roadways for efficient vehicle travel is weighed heavily in the planning and design process. However, road design must take into consideration the character of surrounding areas. The maximum desirable roadway footprint for Dublin is a four/five lane divided roadway, ~~and it is likely that~~ LOS "F" will occur at many key intersections during peak hours due to ~~This will result in~~ longer queues and increased delays ~~that may trigger greater driver frustration. Over time, drivers will likely alter schedules or driving habits, and the peak will be extended beyond traditional hours into a peak period.~~

Building larger roads and intersections mainly serves economic development purposes and corporate residents. While corporate residents provide a critical base to the success of Dublin, the traffic generated by these businesses is not present during evening hours and weekends. Outside of normal business hours, driving through expansive roadways and intersections meant to minimize delay only in the peak hour is considered as unnecessary. Wider roads and intersections also create the need for greater long-term maintenance efforts and costs. The goals of trying to maintain character, reduce congestion, and minimize long-term maintenance often conflict and result in the need for acceptable compromise.

- A. *Consider Visual Impacts...* to the area as part of the design process. Road design should be sensitive to surrounding character and environment and should balance both community character and mobility.

B. *Allow Lower Travel Efficiency...* to create a balance between many competing needs by recognizing that community character, sense of place, surrounding land uses, as well as the efficient movement of traffic are all important elements. This may result in ~~slightly~~ lower levels of service during peak periods, but upholds the community value of preserving visual character.

C. ~~Utilize-Use~~ *Alternative Roadway Design...* for unique site constraints. Wherever possible and practical, retain wooded areas in or near roadways and design roadways to fit the surrounding topography. If bedrock is a known constraint, consider other roadway design alternatives such as open ditches rather than curb and gutter.

Objective 5: ~~Utilize-Use~~ roadway improvements (where appropriate) to increase roadway capacity and safety, while reducing peak hour congestion.

Major road capacity improvements are expensive, and excess capacity is often rapidly absorbed by induced traffic. Some significant improvements in traffic operations can be achieved through focused, low-cost improvements rather than with extensive road widening projects. The merits of both options should be carefully considered.

A. *Implement Operational Improvements...* to the transportation network that include low-cost projects such as improved signal timing and intersection signing, markings, minor widenings, channelization and turn restrictions.

B. *Manage Access Points...* onto arterials and major collectors to provide for adequate, safe and properly designed entrances and exits to and from developments.

C. ~~Utilize-Use~~ *Alternative Design Solutions...* such as roundabouts and other non-traditional features to provide for added movement and capacity in instances where traditional signalization cannot achieve an adequate LOS or where safety is a factor.

D. *Consider Aesthetic Impacts...* that improvements such as widening or additional lanes may visually have on roadway corridors with defined visual character (Map 4.11).

E. *Balance Transportation and Planning Objectives...* ~~to determine the best and most appropriate roadway widening projects and identifying where road widening projects and other infrastructure improvements may not be appropriate or feasible.~~

Objective 6: Maximize the connectivity of Dublin's roadway network.

Transportation systems with numerous interconnections offer more direct routes and serve to disperse traffic rather than to concentrate it on major arterials at a few intersections. Arterials should primarily serve through-traffic and access to Dublin's employment centers, while residents should have multiple means of access to daily services with reasonable ease. Networks with many connections also encourage walking and are more transit-friendly than a traditional collector and cul-de-sac network. Policy decisions regarding road connectivity should take into account the effects on the community as a whole while ensuring sensitivity for neighborhoods.

A. *Require Multiple Routes and Connection Points...* ~~to establish greater travel options for residents and employees within new developments and to the surrounding area by providing through the creation of internal circulation streets within new developments that links to surrounding roadways and adjacent development areas. to establish greater travel options for residents.~~

~~B. *Provide Multiple Routes...* for internal circulation streets to major activity areas within and adjacent to developments.~~

~~EB. *Require Internal Connections...* through cross-access easements between non-residential (e.g. office and commercial) developments to minimize traffic on arterial and collector streets.~~

~~EB. *Discourage Cul-de-sacs...* when loop streets and other site layouts or configurations can be provided to enhance street connections and route choices to evenly disperse traffic on the transportation network.~~

~~EC. *Extend Existing Street Stubs...* in conjunction with adjacent development to benefit the larger transportation system by providing better access for residents within those neighborhoods.~~

~~FD. *Cautiously Consider Modifications...* to residential collectors that serve neighborhoods and provide access to Dublin's residential areas.~~

~~EE. *Discourage Access...* for non-residential and higher density development through residential and/or lower density development, while providing connections to these uses and services for the benefit of surrounding neighborhoods.~~

**Objective 7: Ensure that road improvements minimize adverse impacts in sensitive areas and balance roadway design with community character and visual appeal.**

The protection of historic, environmental or aesthetically important areas has an important value to the Dublin community. The Thoroughfare Plan reflects this value through the location of new roads and the widths of planned rights-of-way. Location and design of new improvements should be considered with respect to the intended scenic/visual character and the quality of the public right-of-way. Other smaller-scale considerations in road design also impact the visual quality of future improvements.

- A. *Assess and Mitigate Potential Impacts...* of future road improvements and/or new construction on historic and environmentally sensitive areas, as well as the visual appearance of the road corridor.
- B. *Provide Adequate Buffering...* and setbacks between improvements and historic or environmental areas to maintain their visual and physical integrity.
- C. *Provide Adequate Landscaping...* such as planting areas, mounding, wall treatments or other design techniques to integrate road improvements into sensitive areas.
- D. *Sensitively Integrate Stormwater Management...* from road improvements and consider alternative techniques, where possible, to ensure the integrity of historic sites and environmentally sensitive areas are not compromised.

**Objective 8: Promote alternatives to the single-occupant vehicle within the Citycity.**

While most of Central Ohio (and particularly Dublin) is auto-oriented, reducing dependence on automobiles is desirable to extend the capacity of the Citycity's road network. There is increasing recognition within the region that substantial multi-jurisdictional efforts will be necessary to reduce road congestion by shifting trips away from single-occupancy trips and from peak travel hours.

A. *Promote Walking and Biking...* through design standards that provide for safe travel routes and facilities.

- B. Reduce Peak Trips... by encouraging staggered shifts, flextime and compressed weeks, as well as allowing peak periods rather than a peak hour for congested corridors.
- C. Develop Broader Partnerships... with regional planning bodies such as the Mid Ohio Regional Planning Commission (MORPC) and the Logan-Union-Champaign (LUC) Regional Planning Commission, COTA, affected counties and neighboring jurisdictions in efforts to support and encourage ride-sharing programs and local circulators to park and ride lots and public transit stops.
- AD. Expand Transit Service... in the Dublin area to provide more convenient opportunities for potential users and to provide alternative modes of travel to employment centers within the Citycity. It will be important to work with COTA and other organizations to influence and implement regional transit plans.
- ~~B. Develop Broader Partnerships... with regional planning bodies such as the Mid Ohio Regional Planning Commission (MORPC) and the Logan-Union-Champaign (LUC) Regional Planning Commission, COTA, affected counties and neighboring jurisdictions in efforts to support and encourage ride-sharing programs and local circulators to park and ride lots and public transit stops.~~
- ~~C. Promote Walking and Biking... through design standards that provide for safe travel routes and facilities.~~
- ~~D. Reduce Peak Trips... by encouraging staggered shifts, flextime and compressed weeks, as well as allowing peak periods rather than a peak hour for congested corridors.~~
- E. *Encourage Higher Density Development...* in targeted areas of employment that will support the integration of additional local and circulator bus routes, particularly along the SR 161 corridor between Sawmill Road the Bridge Street District and the Central Ohio Innovation Center West Innovation Districts.
- F. *Protect Future Rail Transit Options...* that would maintain the opportunity for the long-term implementation of light rail or other transit options by obtaining additional rights-of-way and sites for potential station/terminal locations.
- G. *Enhance Transit Ridership...* by helping to facilitate sites to serve as future park and ride locations that can reduce arterial trips and reliance on the automobile.

### Objective 9: Work cooperatively with surrounding jurisdictions to coordinate regional transportation planning and programming.

Traffic in Dublin affects, and is significantly affected by, regional traffic patterns. The ability to facilitate regional cooperation efforts and to respond to shared transportation problems will be an essential role for the City as areas around Dublin develop.

- A. ~~Aggressively~~ *Explore Additional Bridge Locations...* at locations that will meet local connectivity as well as and outside Dublin with surrounding jurisdictions that will meet regional transportation needs.
- B. *Coordinate Transportation Plans/Projects...* by maintaining and further developing positive relationships with County Engineers to plan transportation improvements that benefit all area residents.
- C. *Monitor Area Developments...* and work cooperatively with surrounding jurisdictions to ensure that private development adequately accounts for expected traffic impacts.

- D. *Encourage Delaware County...* to develop the Home Road/Lewis Center Road corridor as a primary regional east-west route to alleviate impacts on the Dublin transportation system.
- E. *Partner with Union County...* to enhance the U.S. 33 corridor and surrounding roadways and interchanges within Dublin's planning area to provide greater access to area businesses and to create an improved regional transportation network that better disperses traffic.
- F. *Encourage State of Ohio and City of Columbus Officials...* to address transportation issues in the [US 33/SR 161 corridor at the I-270 interchange along with the](#) Sawmill Road corridor north of the I-270 interchange to enhance service and access for Dublin area residents and businesses.

#### Objective 10: Proactively address key long-term components of the Thoroughfare Plan.

Since 1997, the City has aggressively addressed many improvements that have greatly increased the capacity and connectivity of the arterial network. As Dublin continues to grow and mature, the need to manage transportation improvements and plan for future growth and economic development opportunities will be essential to maintain a suitable roadway network at an acceptable level of service. As part of the overall transportation management program, the City should take measures to ensure that necessary improvements can be made at a reasonable cost.

- A. *Target and Reserve Land...* necessary to provide for future interchange improvements at U.S. 33 and Mitchell-Dewitt Road.
- B. *Acquire Additional Rights-of-Way...* necessary to complete future capacity improvements at [key locations such as the Avery-Muirfield Drive interchange with U.S. 33 and new bridges over the Scioto River between SR 161 and Emerald Parkway identified during the Bridge Street District planning process.](#)
- C. *Maintain Development Buffers...* to allow for the reconstruction of the I-270/U.S. 33 interchange in acknowledgement of the MORPC/ODOT Major Investment Study (MIS) for the I-270 corridor.
- D. *Continue Capital Project Prioritization...* in the annual Capital Improvements Program (CIP) to emphasize transportation projects that will maintain overall service to Dublin's residents and business community.

#### Objective 11: Promote bicycle and pedestrian mobility in and through Dublin.

Bicycling offers a healthy travel alternative to the automobile and can function as a multi-modal link or simply as a popular recreational activity. A greater proportion of the population could take part if necessary facilities and connections were available to enhance bicycle safety and convenience. Dublin's bikeway system must overcome man-made and natural barriers to link all parts of the [Citycity](#). Major activity centers should be linked, and both recreational and commuter cycling should be accommodated. The Dublin system is an important part of a regional network designed to provide alternative transportation modes. Designated routes must be well marked and maintained to ensure a safe and efficient cycling and pedestrian environment.

- A. ~~Utilize~~ Use *Adopted Plans...* such as the Community Plan and the Parks and Recreation Master Plan to provide for comprehensive bicycle facility planning that is clearly and systematically linked to capital funding cycles.

- B. *Require Construction of Facilities...* such as paths, crossings, tunnels, lanes, bike racks, etc. as part of the zoning and development process and throughout public parks, greenways and destinations. Incorporation of safe crossing points with major roads and intersections should be emphasized.
- C. *Integrate Bicycle Planning...* with overall transit planning to ensure coordination between the municipal path system and key transit stops to encourage multi-modal options.
- D. *Emphasize ~~Bike-Shared Use~~ Path Connectivity...* to facilitate safe ~~City~~city-wide routes, particularly to Dublin's schools, parks, recreation facilities, regional metro parks and other points of interest. Major activity and employment centers should be linked, and focus should be maintained to connect missing path segments within the overall system.
- E. *Consider ~~Bike-Shared Use Paths, and Bike Lanes, Shared Use Lanes, and Cycle Tracks...~~* as part of right-of-way design to provide greater access to major activity and employment areas as an alternative means of commuting/travel. Develop design standards and criteria for these and other bicycle facilities.
- F. *Facilitate Regional Connections...* to assist in creating a multi-jurisdictional bikeway system by coordinating the extension of bike paths and lanes into adjacent townships and municipalities.
- G. *Establish Working Partnerships...* with area jurisdictions and statewide agencies or organizations such as the Environment Fund of Ohio, Ohio Department of Natural Resources, Ohio Parks and Recreation Association, ODOT, MORPC, Ohio Greenways, and Rails-to-Trails Conservancy to coordinate bikeway projects and to seek out broader funding sources.
- H. Continue to Budget for provide Continued Maintenance funds in the Budget... for annual upkeep of the bikeway system ~~to provide for annual upkeep and~~ to ensure a high quality riding environment.
- I. ~~Consider Monitor Bicycle Parking Requirements...~~ within the Bridge Street District and West Innovation Districts zoning regulations to ensure their effectiveness in promoting bicycle travel to and within these areas. Zoning Code that could promote bicycle facilities as an incentive to reduce parking pavement as well as, maximize greenspace and promote alternative transportation methods and ~~Consider additional bicycle parking requirements throughout the city as a means to further incentivize alternative travel modes and reduce parking lot pavement.~~
- J. *Promote Bicycle Education...* within the community to encourage increased and safer recreational and commuter bicycle use usage for various ages and abilities.
- K. ~~Create-Develop a Comprehensive Sign Programs Wayfinding System...~~ for the bikeway network and conflict points to identifying bikeway routes ,directing bicyclists to destinations throughout the city. Bikeway network wayfinding will and increasing the comfort level for bicyclists of varying levels of experience, and by providing additional visibility and awareness to motorists and cyclists. provide for the safe and efficient movement of bicycles throughout the City.
- L. Encourage Bicycling as a Form of Transportation... through incentives and programs which raise awareness of bicycling and mode shift options as well as safe bicycling behaviors. Continually evaluate the effectiveness of the city's bicycle initiatives.

M. Prioritize Recommendations of the Bicycle Advisory Task Force... to ensure suggested bicycle-oriented programs and facilities are coordinated with other city initiatives and capital improvements needs. Achievement of the *Bicycle Friendly Community* designation from the League of American Bicyclists provides a concrete goal that will also involve implementation of many other BATF recommendations.