

Transportation



I. EXISTING CONDITIONS

Within the Columbus Metropolitan Statistical Area (MSA), Dublin has a strong north-south road network that converges on downtown Columbus. In contrast, the area has an underdeveloped east-west road network, based in large part on the expense involved in bridging the Scioto River. This pattern continues to constrain movement and development within the City.

The 2006 Public Opinion and Citizen Satisfaction Research Survey was conducted to rate the City on basic services provided to residents. Since the 1999 Thoroughfare Plan was adopted, there have been significant improvements made to the transportation network. These enhancements are reflected in the improved transportation rating by respondents, 86 percent of which felt that

traffic and roadways were excellent or good, (compared to 80.7 percent in both 2004 and 2002, and only 58.7 percent in 2000). Although transportation received an “excellent/good” rating in recent surveys, responses also indicate that much improvement to the road system remains. Improving traffic was indicated as the second most important goal for the community. Please refer to *Appendix I* for a summary of the 2006 Public Opinion and Citizen Satisfaction Research Survey.

This chapter outlines existing traffic conditions, traffic volumes, identified capacity problems and planned roadway improvements. It should be noted that efforts to model and develop the Thoroughfare Plan were initiated in late 2004, and “existing” reflects traffic conditions at that time.

A. Traffic Volumes and Capacity Issues

A variety of sources of traffic data were utilized to study Dublin’s transportation system including traffic count inventories from the Ohio Department of Transportation (ODOT); Franklin, Delaware, and Union Counties; the Mid-Ohio Regional Planning Commission (MORPC); and the City of Dublin. These available counts were supplemented with 16 additional targeted inventories that consisted of 11 total weekday traffic counts and five AM and PM peak hour turning movement counts. AM and PM peak hour volumes were defined for all count locations. Collected data was used to validate the TP+/Cube travel demand computer model developed for the planning process. Please refer to *Section*

II. Projections for more information on the travel demand modeling process.

Based on the inventories, the heaviest used roadways in the modeling area are identified in Table 4.1. It should be noted that although Sawmill Road is listed, it is located along Dublin's eastern edge and is a roadway controlled and maintained by the City of Columbus. Bridges that cross the Scioto River south of Glick Road also experience high traffic volumes.

At present, drivers experience congestion and delays at several locations. Units of measurement for congestion are *Level of Service* and *Volume to Capacity Ratio* and are described in detail on page 165. Those primary locations where existing traffic demand exceeds capacity include the following roadway segments:

- I-270 north and east of the U.S. 33/SR 161 interchange, including weaving problems on I-270 at the interchange;
- SR 161 between Hyland-Croy Road and Cosgray Road due to the U.S. 33 freeway ramps and insufficient through and turning lanes during the PM peak hour;
- Glick Road and Dublin Road intersection during the PM peak

hour due to lack of turning lanes and intersection capacity;

- Avery-Muirfield Drive corridor along the Post Road, Perimeter Drive, and Perimeter Loop Road intersections due to weaving conflicts to access commercial areas, intersection spacing problems, U.S. 33/SR 161 ramp back-ups and through traffic to access Dublin's northern neighborhoods;
- Frantz Road at its intersections with U.S. 33/SR 161 and Metro Place North due to high employment traffic volumes;
- Sawmill Road from Bethel Road to Hard Road, including major problems at the I-270 interchange due to lane restrictions north of the Interstate;
- Frantz Road between Tuttle Crossing Boulevard and Hayden Run Road due to commercial traffic and congestion points at the Hayden Run Bridge; and
- Riverside Drive (U.S. 33) south of SR 161 to Fishinger Road, which has scenic character along the River with two lanes of travel and limited left turn lanes.

Table 4.1 Traffic Volume and Usage

Roadway	Existing (2004) Average Daily Traffic
I-270	97,400 – 135,900
U.S. 33/SR 161	44,100 – 90,900
Riverside Drive	23,500 – 43,900
SR 161	32,600 – 51,200
Sawmill Road	23,200 – 53,000
Tuttle Crossing Boulevard	18,800 – 44,000
Avery-Muirfield Drive	28,400 – 33,000
Avery Road	13,800 – 28,100
Frantz Road	16,700 – 31,600
Woerner Temple Road	11,900
Post Road (east of Emerald Parkway)	16,500
Hard Road	15,700 – 17,500
Emerald Parkway	7,400 – 39,100
Powell Road	12,700 – 19,400
Dublin Road	3,900 – 26,300



LEFT: Many key corridors experience congestion during peak hours

OPPOSITE PAGE: Dublin strives to maintain a high quality road system.

These capacity problems are primarily experienced during the traditional commuter rush (peak) hours. However, congestion and delays also occur in the areas of Frantz Road, Avery-Muirfield Drive and U.S. 33/SR 161 during lunch hours. In addition, extreme congestion and delays are experienced along the Sawmill Road and Powell Road corridors on weekends, due primarily to the adjacent retail activity and the Columbus Zoo exits.

Extreme congestion with stop-and-go conditions are encountered on many weekday evenings (especially Friday) along the I-270 North Outerbelt through Dublin. When this happens, drivers often divert to the internal street system, placing an increased demand on river crossings. Typically, the entire roadway system will then experience significant delay and congestion.

While U.S. 33 and I-270 provide access for trips that start or end within Dublin, they also carry high volumes of traffic through the City. In addition, roadways such as Dublin Road, Riverside Drive, Sawmill Road, Avery Road, and U.S. 33 are also part of the regional road network. As new developments occur in Union

and Delaware Counties, a significant portion of the traffic generated will be oriented toward Dublin's I-270 and U.S. 33 interchanges or other areas along I-270. This through traffic will absorb portions of roadway capacity within the Dublin area.

B. Planned and Programmed Roadway Improvements

The 2007 Thoroughfare Plan (Map 4.4) shows several proposed and/or planned roadways. While some projects have been completed, others are under construction or are being designed. The proposed or planned facilities include the following:

- Emerald Parkway east from Riverside Drive to Hard Road. (and partially under construction)
- Hospital Drive from Avery-Muirfield Drive to Perimeter Drive. (complete with anticipated opening in January 2008)
- U.S. 33/SR 161 interchange improvements. (under final design with construction anticipated in 2008-2010)
- Industrial Parkway relocation. (under final design with construction anticipated in 2008-2009)
- Village Parkway extension westward from Dublin Center Drive to connect with the Shamrock Boulevard extension. (under construction in 2007)
- Central Ohio Innovation Center (COIC) internal roadway network. (planned)
- Tuttle Crossing Boulevard extension to Avery Road and further to the west to connect with Houchard Road west of Amlin. (planned)
- Stoneridge Lane extension west to Dale Drive. (planned)
- Redirection of Post Road to Commerce Parkway. (planned)
- Wyandotte Woods Boulevard extension to Emerald Parkway. (planned)
- Eiterman Road extension south to Rings Road. (completed in 2007)
- Westbound ingress only lane from U.S. 33 off-ramp intersection at Avery-Muirfield Drive to Hospital Drive. (planned)



- Tuttle Crossing Boulevard widening from Wilcox Road to Emerald Parkway. (under design with construction anticipated in 2008-2009)
- Avery Road widening from U.S. 33/SR 161 interchange south to City corporate line. (first phase under construction in 2007)

In addition to the work being undertaken by Dublin, other agencies including the City of Hilliard, City of Columbus, Franklin County, Delaware County and ODOT, have scheduled or completed several roadway improvement projects, including the following:

- Powell Road realignment with Glick Road around the Columbus Zoo. (under construction in 2007)
- Britton Parkway extension south of Tuttle Crossing Boulevard to Hayden Run Road. (completed)
- Sawmill Parkway extension north from its existing northern terminus at Home Road north to Airport Road. (under final design)

- Riggins Road extension from Britton Parkway west to Hayden Run Road. (planned)
- I-270 widening from I-70 to U.S. 33 to the outside, creating a four-lane basic roadway section in each direction. (planned)
- I-270/U.S. 33 interchange improvements to be constructed in phases. (planned)
- U.S. 33/Avery-Muirfield Drive interchange improvements. (planned)
- U.S. 33/McKittrick Road interchange construction. (planned)
- U.S. 33 widening from I-270 to Avery-Muirfield Drive to the outside, creating a four-lane basic roadway section with auxiliary lanes in each direction. (planned)

Of greatest regional significance is the planned widening and interchange improvements of the Outerbelt on the northwest side of the greater Columbus area. Congestion along I-270 and U.S. 33/SR 161 is moderate to severe and

will worsen as traffic volumes increase over the next 25 years. Two freeway segments currently operate at a Level of Service (LOS) "E" during the PM peak hour: westbound lanes of U.S. 33/SR 161 between I-270 and Avery-Muirfield Drive and the westbound lanes of I-270 between Sawmill Road and U.S. 33.

While new development has created thousands of jobs, it has also caused transportation challenges. The I-270 widening projects will assist in relieving the associated congestion. Two new lanes in each direction, with auxiliary lanes, are planned for the corridor on the northwest side. The new lanes will be added to the outside of the existing lanes first, and then to the inside in order to retain the width of the median for as long as possible and to minimize expenses by purchasing rights-of-way earlier.

In addition to the freeway widening, several interchange improvements are anticipated for the area. The I-270/Cemetery Road, the I-270/Tuttle Crossing Boulevard, and the I-270/U.S. 33/SR 161 interchanges are all expected to be improved in the next 25 years. Additionally, the U.S. 33/SR

Major road improvements will be necessary as Dublin continues to grow.



161 interchanges at Avery-Muirfield Drive, McKittrick Road, and U.S. 42 are all identified by ODOT for construction by the year 2020.

The projects described above are necessary even though I-270 has recently been widened to three lanes in this area. It was realized at the time of construction of the three existing through lanes that they would not totally solve the mobility problems in the northern corridor. In addition, improvements must also be made to crossroads and other roadways on the surface street system. Beyond this, MORPC is coordinating regional efforts to manage and reduce the demand for travel through increased transit service and travel demand management strategies by eliminating trips or changing the time of day the trips occur.

C. Bicycle Facilities

Bicyclists differ widely in their abilities and in their preferences for riding environments. In general, bicycle trip purposes can be divided into two broad types: recreation and transportation. Dublin has an extensive network of bikeways serving the recreational rider (refer to *Map 4.10 Bikeway Plan*). The 88-mile public system connects many local schools, parks and destinations, while the Muirfield Village development in northern Dublin adds an additional 22 miles in its private system.

When identifying potential bikeways, the City has placed primary emphasis on linking local destination points and completing the existing network. Dublin also has a few regional and commuter bike routes that traverse the

City. These bike routes serve as links between destinations and connect Dublin with other communities in the region. Existing and potential bikeway corridors and routes have been identified as part of the Greater Columbus regional bikeway system and are included in the MORPC *Regional Bicycle Transportation Facilities Plan*.

Implementation of the bikeway system is achieved through City development regulations and funding mechanisms. Generally, Dublin's subdivision regulations require that sidewalks be constructed on both sides of all streets. If a proposed development includes property for which a bike path is proposed, the construction of the bike path is substituted for the usual length of the sidewalk.

The City works to connect existing bikeways with future bikeways within rights-of-way or easements. An annual bike path project list is submitted to City Council for appropriation; additional bikeway facilities can be funded separately. Generally, the City's bike path design standards specify a minimum pavement width of eight feet.

When identifying potential bikeways, the City has placed primary emphasis on linking local destination points and completing the existing network.



Young residents decide which path to take on Dublin's extensive path system.

II. PROJECTIONS

The Community Plan focuses on future impacts and future conditions within Dublin. Estimating traffic in future years for the Dublin area was accomplished through a travel demand forecasting process that models travel behavior (how many trips are made, to which destinations, at what times, etc.). Using information from MORPC and survey data from Dublin, these traveler characteristics were quantified. The computer model (TP+/Cube) uses this information, combined with land use data, to estimate when and where vehicles will travel.

An overall study area is subdivided into smaller geographic areas called Traffic Analysis Zones, (TAZ) for the travel demand analysis. The anticipated future land use is then defined for each TAZ. The land use densities are translated into residential population and employment information, which then determines the number of trips to be assigned to the roadway network.

The travel demand modeling work is traditionally a four-step process: 1) trip generation, 2) trip distribution, 3) mode choice and finally 4) trip assignment. The *Transportation Planning Handbook, Second Edition*, published by the Institute of Transportation Engineers, provides the following definitions for each of the four steps in the process.

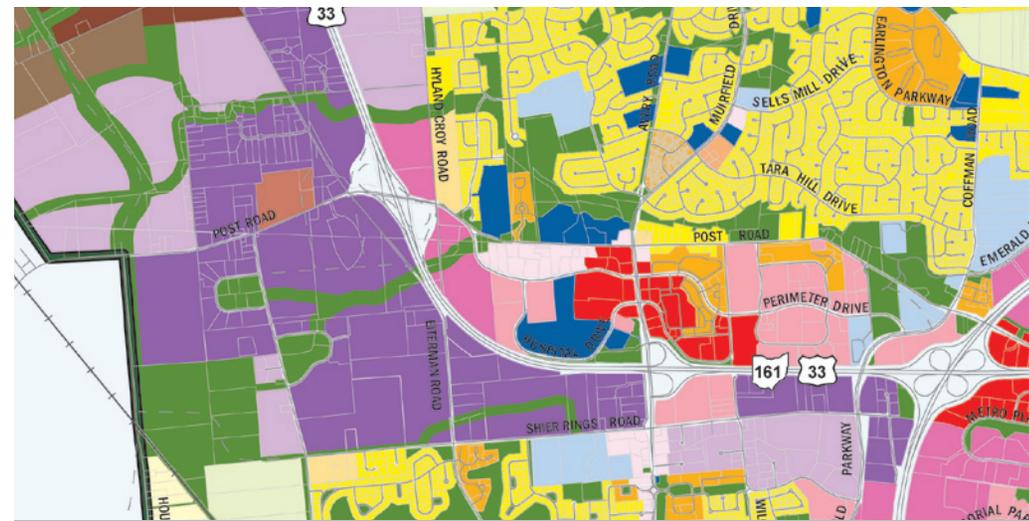
Trip generation: predicts the number of person trip ends that are generated by and attracted to each defined zone in a study area.

Trip distribution: connects trip ends (productions and attractions) estimated in the trip generation model to determine trip interchanges between each zonal pair.

Mode choice: determines the modes that will be used to travel on each zonal interchange.

Trip assignment: assigns trips to specific highway or transit routes and determines the resulting highway volumes and transit ridership.

Quality transportation modeling is made possible by establishing clear land use policies.





Dublin is home to many award-winning bridge designs.



A. Planning Process

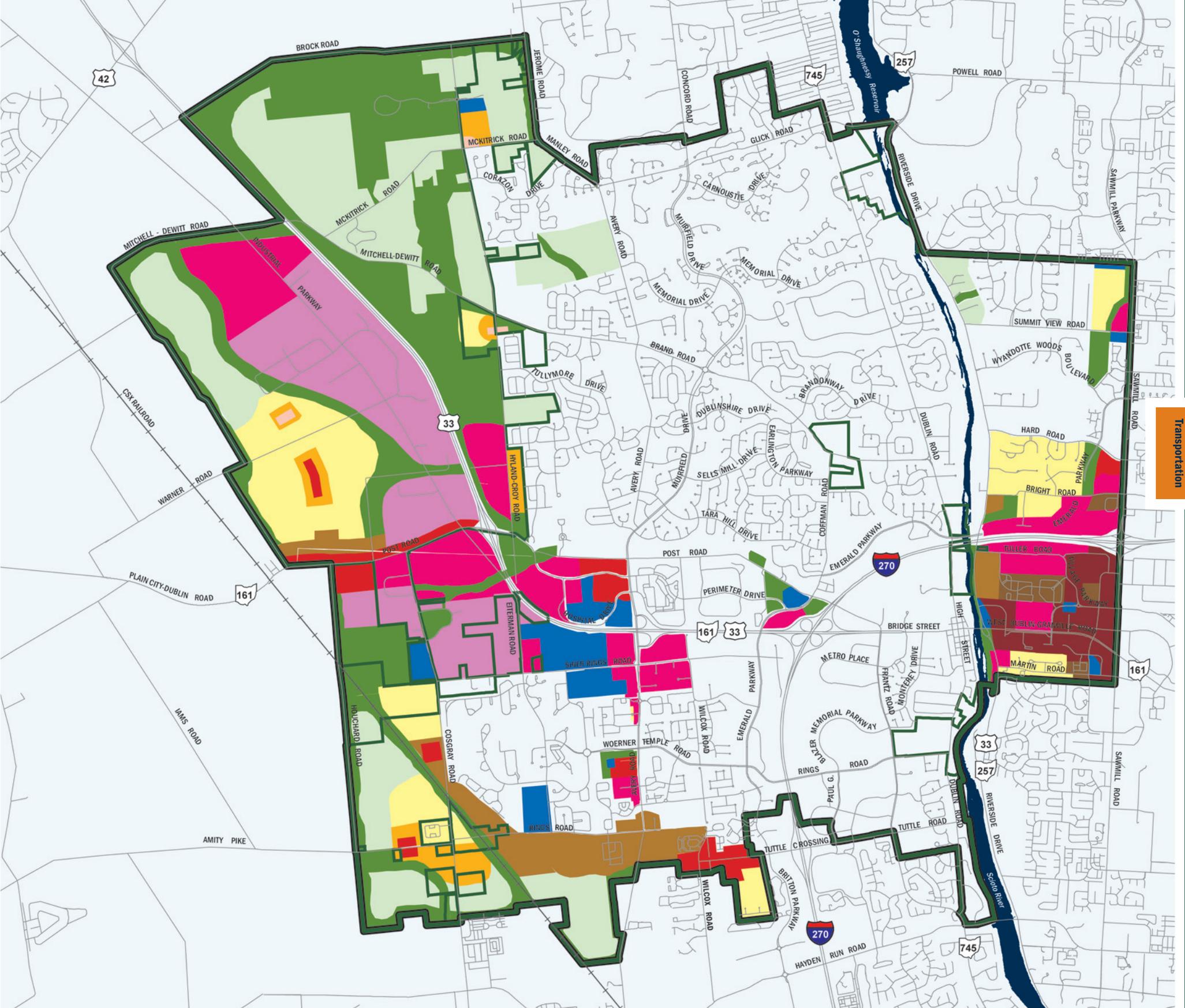
The travel demand model included land use data for several hundred small land use areas. Each small area, or Traffic Analysis Zone (TAZ), was tested for future conditions. The land use information for each zone was based on the Mid-Range Scenario on Map 4.1. Through an iterative process, the highway network was adjusted by adding or reducing lanes until the network best accommodated vehicle trips projected for Dublin's development in 2030.

The transportation modeling effort was undertaken for existing conditions (2004) and the 2030 planning horizon, which accounts for expected development to that year. The 2030 testing was done to coincide with the fiscal analysis and yielded important information on phasing considerations and costs associated with the required network improvements. It is also the basis for the Thoroughfare Plan shown on Map 4.5, which represents the road network necessary to address the community's 2030 mobility. Map 4.6 also illustrates the number of lanes needed to accommodate expected traffic levels in 2030.

The components of the future network are outlined in Section III of this chapter and includes a listing of projects recommended to address congestion in the Dublin area through 2030. It was important to focus on year 2030 levels to ensure consistency with the planning efforts of other agencies including MORPC and ODOT. The region's future transportation projects originate in planning and programming documents assembled by these two agencies. By using a 2030 horizon year and significant network analysis, Dublin will have an advantage over other communities in pursuing federal and state funding for future projects.

A policy determination was made as part of the planning process to limit the maximum number of through lanes to two in each direction for Dublin collectors and arterials. This limitation balances roadway capacity with aesthetics, pedestrian orientation, and other quality of life considerations in Dublin. Thus, as travel demand increases, some corridors may be challenged to achieve acceptable levels of operation. In the case of Dublin Road, the corridor will remain constrained as a two-lane roadway regardless of how congested it becomes.

Through extensive public input and policy discussion, area plans and future land use scenarios were created that reflected adopted land use principles. Based upon the traffic impacts of the land use options, the Mid-Range Scenario was selected to complete comprehensive modeling efforts. Since the completion of transportation, fiscal and utility modeling work, additional enhancements of plans for the U.S. 33 Corridor Area have occurred that are also indicated on the Future Land Use Map in Chapter 3. The adjusted land uses indicated on plans for the U.S. 33 Corridor Area and Future Land Use Map impact population projection and employment figures in Chapters 3 and 8 and are not reflected in the modeling output contained in Chapters 4, 7, and 9. Further testing will be necessary for the various models to represent newly proposed ideas for this important employment corridor.



- | | | |
|---|--|---------------------|
| Conservation Subdivision (1.5 units/ac) | Residential Multi-Type D (10 units/ac) | Office |
| Single Family Residential (2 units/ac) | Mixed Use Neighborhood Center | Light Industrial |
| Residential Multi-Type A (4 units/ac) | Mixed Use Village Center | Civic/Institutional |
| Residential Multi-Type B (6 units/ac) | Mixed Use Town Center | Open Space/Park |



- Planning Area
- City of Dublin

Transportation

Map 4.1 Land Use Scenario Two – Mid-Range Scenario



As such, motorists will have to choose whether to remain on Dublin Road or select an alternate route. Dublin's overall system is comprehensive and robust and provides many alternate routes for most trip origins and destinations.

Some congested corridors will remain in 2030. The Avery-Muirfield Drive corridor, Dublin Road, and U.S. 33/SR 161 (inside I-270) will continue to experience congestion during the peak hours. It is in these locations that additional traffic operational enhancements must be considered. In addition to these congestion points, land use considerations for the full build-out of Dublin by 2050 will require additional improvements and additional analysis of the Dublin transportation system in the future. Given Dublin's growth areas to the north and west, roadways on the periphery of the City and others important segments were sized by number of lanes with consideration of the full build-out impacts of these changing areas.

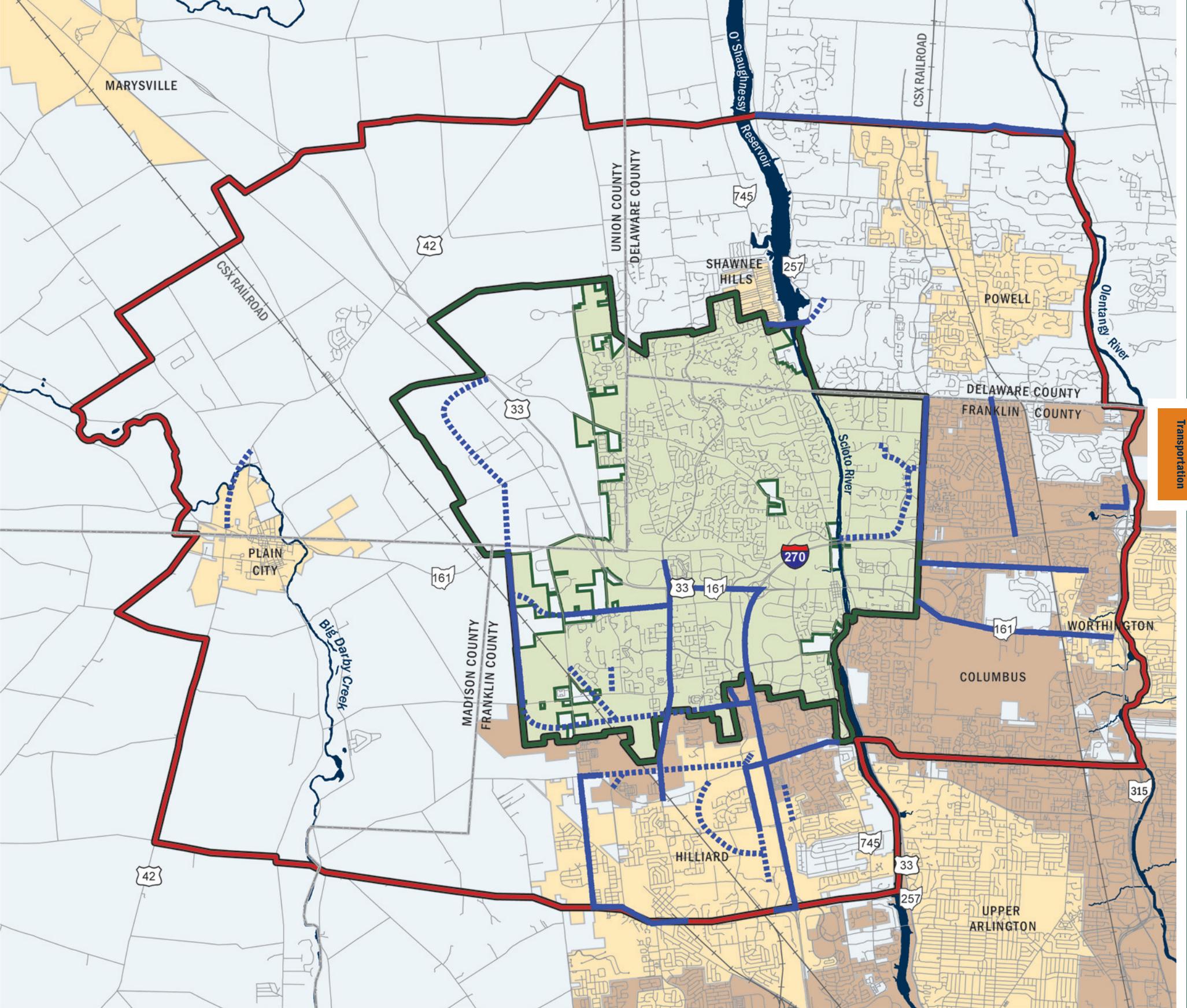
B. Transportation Network

Initial travel demand modeling efforts used the roadway network in the adopted 1999 Thoroughfare Plan (amended June 18, 2007). This original network was found to be inadequate to handle the traffic associated with year 2030 development, and it was enhanced by adding lanes to certain roadway segments. This process included community input and respected community sentiments to limit road widening to acceptable widths. In this sense, it represents the maximum feasible network. Adjustments were made to consider transportation plans of adjacent municipalities. The network was further modified to recognize and coordinate with planning efforts of Union, Delaware, and Franklin Counties.

The travel estimates for the Mid-Range Scenario discussed in *Chapter 3 – Land Use* used a network that assumed several key improvements. Map 4.2 shows projects included in this roadway network that add capacity to the transportation network by widening existing routes or adding new road segments.

Improvements at Dublin Road and Brand Road have greatly improved congestion and safety.





- | | | |
|------------------------|-------------------|--------------------|
| Planning Area Boundary | Major Improvement | City of Dublin |
| Study Area Boundary | New Roadway | City of Columbus |
| County Boundary | Railroad | Other Municipality |



Transportation

Map 4.2 Travel Demand Model Base Network Improvements, 2030

Future projects important to Dublin include: the widening of I-270 to eight lanes from the existing six lanes; Avery Road widening to four lanes south of Shier Rings Road; U.S. 33 widening between I-270 and Avery-Muirfield Drive; Tuttle Crossing Boulevard widening between I-270 and Wilcox Road; Tuttle Crossing Boulevard extension to Houchard Road; Houchard Road widening and northward extension into Union County; and the connection of Emerald Parkway to Sawmill Road.

Beyond these initial improvements, four groups of additional roadway projects were identified: Group I projects resulting from the I-270 Major Impact Study (MIS) known as the 2006 Northwest Freeway Study; Group II projects resulting from area plan concepts in *Chapter 3 – Land Use*; Group III as other projects in Dublin such as potential bridge locations or other development ideas not included in the area plans; and finally, Group IV projects resulting from travel demand modeling to increase capacity.

Several roadway networks and land use assumptions were analyzed for transportation impacts to the overall

roadway network. The study identified the benefits and consequences of the various alternatives under consideration. In summary, the projects that are needed for the Dublin system to service travel demands include the following projects as shown in Groups I through IV in Table 4.2.

Group I Projects are those recommended projects from the I-270/U.S. 33 Northwest Freeway Study. These projects will draw more traffic to the freeway system than without the improvements. In particular, the addition of the Mitchell-Dewitt interchange is appropriately located to serve the burgeoning development that will occur in Union County. Traffic results are expected to be much worse for the Dublin area if the freeway and interchange improvements are not implemented. Given Dublin's projected growth, substantially more traffic would be included on the arterial system.

Group II Projects are improvements that will improve mobility within the localized areas described. These projects should be strongly pursued in conjunction with development. In particular, the Hyland-Croy

Road extension to Home Road (within Jerome Township) is vitally important to mobility for northwestern portions of the modeling area.

Group III Projects are improvements at various locations such as the Post Road realignment to Commerce Parkway, with Perimeter Drive widened to four lanes from Avery-Muirfield Drive to Emerald Parkway; and the cul-de-sac on Bright Road at Riverside Drive due to safety and crash severity concerns.

Group IV Projects are additional improvements resulting from the travel demand analysis. These projects benefit the performance of the overall Dublin area and have large impacts on their immediate areas.

C. Projected Traffic Operations

Maps 4.3 and 4.4 show the AM and PM peak hour levels of service on the Thoroughfare Plan network. When all of the improvements from the four project groups are combined, the travel demand model shows that traffic (as intended by design) is drawn to the

Table 4.2 Proposed Road Improvement Projects

Group I Projects: Northwest MIS Recommendations	Group II Projects: Network Modifications from Area Plans
1. U.S. 33 widening to 6 lanes from U.S. 42 to I-270	1. Hyland-Croy Road extension to Home Road (Jerome Village)
2. U.S. 42 widening (to be determined)	2. McKittrick Road cul-de-sac
3. Industrial Parkway widening to 4 lanes	3. Dublin Village Center "grid" redevelopment
4. New U.S. 33 interchange in the vicinity of Mitchell-Dewitt Road	4. Stoneridge Lane extension to serve the River Ridge development
5. U.S. 33 interchange modifications at U.S. 42, Post Road, Avery-Muirfield Drive, and I-270	5. Eiterman Road extension to Cosgray Road at Fishel Drive North
6. SR 161 widening west of U.S. 33 to 4 lanes	6. Internal roadway network for the Central Ohio Innovation Center associated with the Post Road interchange improvements
7. Cosgray Road widening to 4 lanes	7. Avery Road grid development at Shier Rings Road
8. I-270 Interchange improvements at U.S. 33, Tuttle Crossing Boulevard, and Cemetery Road	
9. Frantz Road/Post Road/SR 161/Bridge Street intersection improvements	

widened roads. In addition to freeways attracting more traffic, the widening of U.S. 42 and Hyland-Croy Road and the extension of Hyland-Croy Road increases traffic on these roadways. These widenings enable adjacent roads like Avery Road and Muirfield Drive to have reductions in traffic when compared without the improvements.

D. Levels of Service

The purpose of establishing a level of service (LOS) system is to adopt operational definitions for driving conditions that motorists routinely experience and recognize. The LOS is a rating system for roadways that measures operational conditions in traffic and motorists perceptions. The individual LOS is characterized by factors such as speed and travel time, freedom to maneuver, traffic interruptions, and driver comfort and convenience.

Six LOS categories are commonly defined. Each is given a letter designation from “A” to “F” similar to a report card, with LOS “A” representing the best operating conditions and LOS “F” depicting the worst, as defined below:

“A” is the best operating condition with a free flow in which there is little or no restriction on speed or maneuverability. At intersections, there is little or no delay.

“B” represents a condition of stable traffic flow, but operating speed is beginning to be restricted. Short traffic delays occur at intersections.

“C” is still a condition of stable flow, but most drivers are becoming restricted in their freedom to select speed, change lanes or pass other vehicles. Intersections experience average traffic delays.

“D” approaches unstable flow. Operating speeds are tolerable to the driver, but are subject to considerable and sudden variation. Freedom to maneuver is limited and driving comfort is low, as the probability of accidents has increased. Long traffic delays are experienced at intersections.

“E” represents a maximum roadway capacity for vehicles. Operation in this zone is unstable, speeds and flow rates fluctuate, and there is little independence of speed selection or maneuverability. Driving comfort is low and accident potential high. The

distance between vehicles is short and operating speeds are subject to rapid fluctuation. Very long traffic delays are experienced at intersections.

“F” is the worst operating condition. Speed and rate of traffic flow may drop to zero for short time periods. Extreme delays are experienced at intersections. This may cause severe congestion, affecting other adjacent roadways.

Volume-to-Capacity (V/C) ratios are used to define LOS on the thoroughfare network links. These ratios are calculated by dividing the modeled traffic volume on the link by the defined capacity of the link. The V/C ratios relate to LOS as follows:

- LOS “A” through “C”: V/C is less than 77 percent; The roadway has capacity to carry additional traffic.
- LOS “D”: V/C ranges from 78 percent to 91 percent; The roadway is nearing capacity.
- LOS “E”: V/C ranges between 92 percent to 100 percent; The roadway has reached capacity and is being utilized to its maximum design.

Table 4.2 (Continued) Proposed Road Improvement Projects

Group III Projects:	Group IV Projects:
1. Frantz Road-Dublin Road Connector (SR 161 to Dublin Road)	1. Widen Hyland-Croy Road from Brock Road to Post Road to 4 lanes (maintain lane continuity with Jerome Village)
2. Post Road redirected to Commerce Parkway, with Perimeter Drive Widened to 4 lanes	2. Widen Jerome Road from McKittrick Road to U.S. 42 to 4 lanes
3. Cul-de-sac Bright Road just to the east of the Riverside Drive and Bright Road intersection (no intersection with Riverside Drive, new intersection with Emerald Parkway)	3. Widen Emerald Parkway from Tuttle Crossing Boulevard to Rings Road to 4 lanes
	4. Widen Eiterman Road from Shier Rings Road to SR 161 to 4 lanes
	5. Widen SR 161 from U.S. 33/Post Road interchange to the west to 4 lanes

- LOS “F”: V/C is greater than 100 percent; Traffic now exceeds the capacity of the roadway.

E. AM Peak Hour

During the year 2030 AM peak hour, volume-to-capacity ratios for the network links, as expressed in terms of levels of service, are generally acceptable. High congestion levels are shown in the southbound direction on Dublin Road south from Memorial Drive through the Historic Dublin to Rings Road. It was decided early on in the comprehensive planning process to preserve the character and number of lanes on existing Dublin Road. This corridor is very important to Dublin from historic and quality of life perspectives. Thus, this is a case of balancing larger community goals with traffic goals. As shown on Map 4.3, other locations with low levels of service are primarily concentrated along corridors providing access to freeways (U.S. 33/SR 161 and I-270) and those servicing the business corridors.

Coffman Road between Brand Road and Emerald Parkway and Emerald Parkway from Coffman Road to

Perimeter Drive show LOS “F” congestion in the southbound direction during morning rush hour. The intersection of Brand and Coffman Roads is also LOS “F” for the morning peak hour indicating the need for intersection improvements at this location.

The Avery-Muirfield Drive corridor also exhibits LOS “F” in the southbound direction. The service interchange at U.S. 33/SR 161, combined with commercial development along the corridor, provides traffic volumes that challenge the existing 4/5 through lane configuration. Even if the maximum roadway footprint policy was violated, an additional through lane in each direction would still provide poor service levels. Intersection improvement projects are anticipated to help, but not solve, the situation along road segments and at the intersections with Perimeter Drive and Perimeter Loop Road. The U.S. 33/SR 161 westbound ramp intersection is also LOS “F” in the AM, while the Perimeter Loop Road and the Perimeter Drive intersections are in the LOS “D” range.

Avery Road south of U.S. 33/SR 161 modeled as LOS “E” in the AM peak

hour in the southbound direction. Improvements to the intersection of Avery Road and Woerner Temple Road are also needed by 2030 to address forecasted congestion at this area.

Non-freeway sections of U.S. 33/SR 161 from Frantz Road to Dublin Road carries a high volume of traffic during the morning commute when considering the existing number of available lanes. This corridor along with Frantz Road, services many higher density commercial and residential destinations in Dublin, including Metro Center.

In the year 2030, other congested intersections include Emerald Parkway at Post Road; Post Road/Frantz Road and SR 161 (inside I-270); Riverside Drive at SR 161; and Bridge and High Streets in Historic Dublin. While not surprising, modeling results indicate the need for system upgrades in the future.

F. PM Peak Hour

During the 2030 PM peak hour, volume-to-capacity ratios for network links as expressed in terms of levels of service

Connectivity of residential streets will improve mobility for residents during peak hours.



are generally acceptable; however, the PM peak hour typically experiences poorer levels of service than the AM peak. High congestion levels are shown in the southbound direction along Dublin Road south from Memorial Drive through the Historic District to Rings Road. Early in the planning process, policy decisions were made to preserve the character and number of lanes on existing Dublin Road due to the scenic and historic importance of the corridor.

Coffman Road from Brand Road to Emerald Parkway and Emerald Parkway between Coffman Road and Perimeter Drive exhibit LOS “E” and “F” congestion in the northbound direction during the afternoon rush hour. The intersection of Brand and Coffman Roads is in the LOS range “A-C” in the PM peak hour.

The Avery-Muirfield Drive corridor also shows LOS “F” for the link in the northbound direction. The service interchange at U.S. 33/SR 161, combined with the commercial development along the corridor, again provides traffic volumes that challenge the existing 4/5 through lane configuration. Service levels remain poor despite the modeling

of an additional lane in each direction. As in the AM, intersection improvement projects are anticipated to improve, but not totally solve the situation along road segments at the intersections of Perimeter Drive and Perimeter Loop Road. The U.S. 33/SR 161 west bound off ramp and the Perimeter Loop Road intersections were modeled at a LOS “F” in the PM, as indicated on Map 4.4. Avery-Muirfield Drive at Perimeter Drive operates at LOS “E” in the PM.

Avery Road south of U.S. 33/SR 161 to Tuttle Crossing Boulevard also shows poor service, with a LOS “F” in the PM peak hour in both the north and south bound directions. Improvements to the intersection of Avery Road at Woerner Temple Road are needed by 2030 to address forecasted congestion at this location.

The non-freeway section of U.S. 33/SR 161 from Frantz Road to Dublin Road

carries high volume when compared to the number of available lanes during the PM peak hour. This corridor along with Frantz Road, services many higher density commercial and residential destinations in Dublin. Motorists using Frantz Road from U.S. 33/SR 161 to Rings Road also will experience heavy LOS “F” congestion in the future PM peak hour.

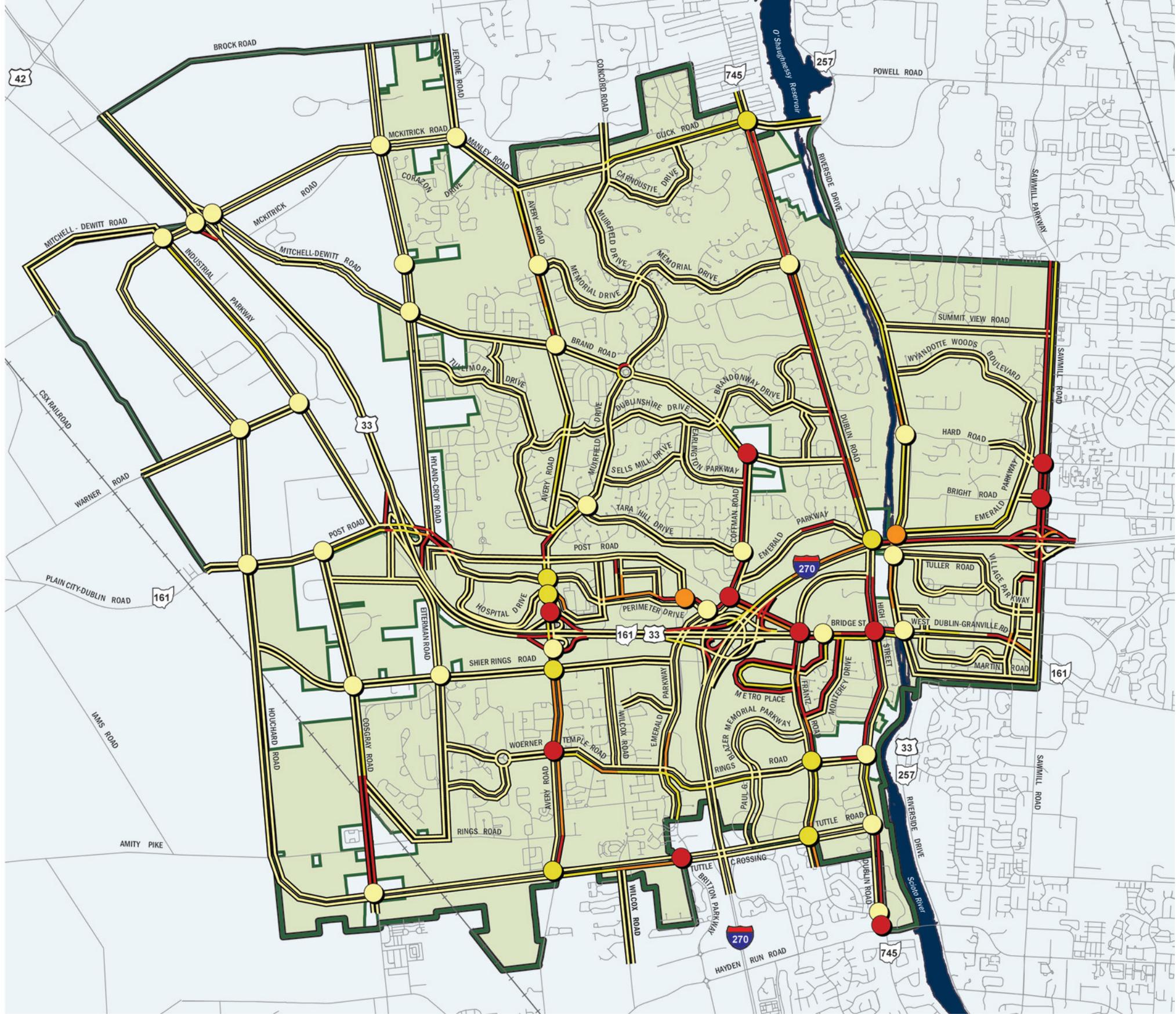
In the year 2030, other congested intersections will include: Post Road/Frantz Road and SR 161 (inside I-270), Bridge and High Streets in Historic Dublin, Riverside Drive and SR 161, and Emerald Parkway and Riverside Drive.

As shown on Map 4.4, the low levels of service for the PM peak hour are nearly the same as those corridors in the AM peak period, and are those located along freeways (U.S. 33/SR 161 and I-270), and in major commercial areas.

The PM peak hour typically experiences poorer levels of service than the AM peak.

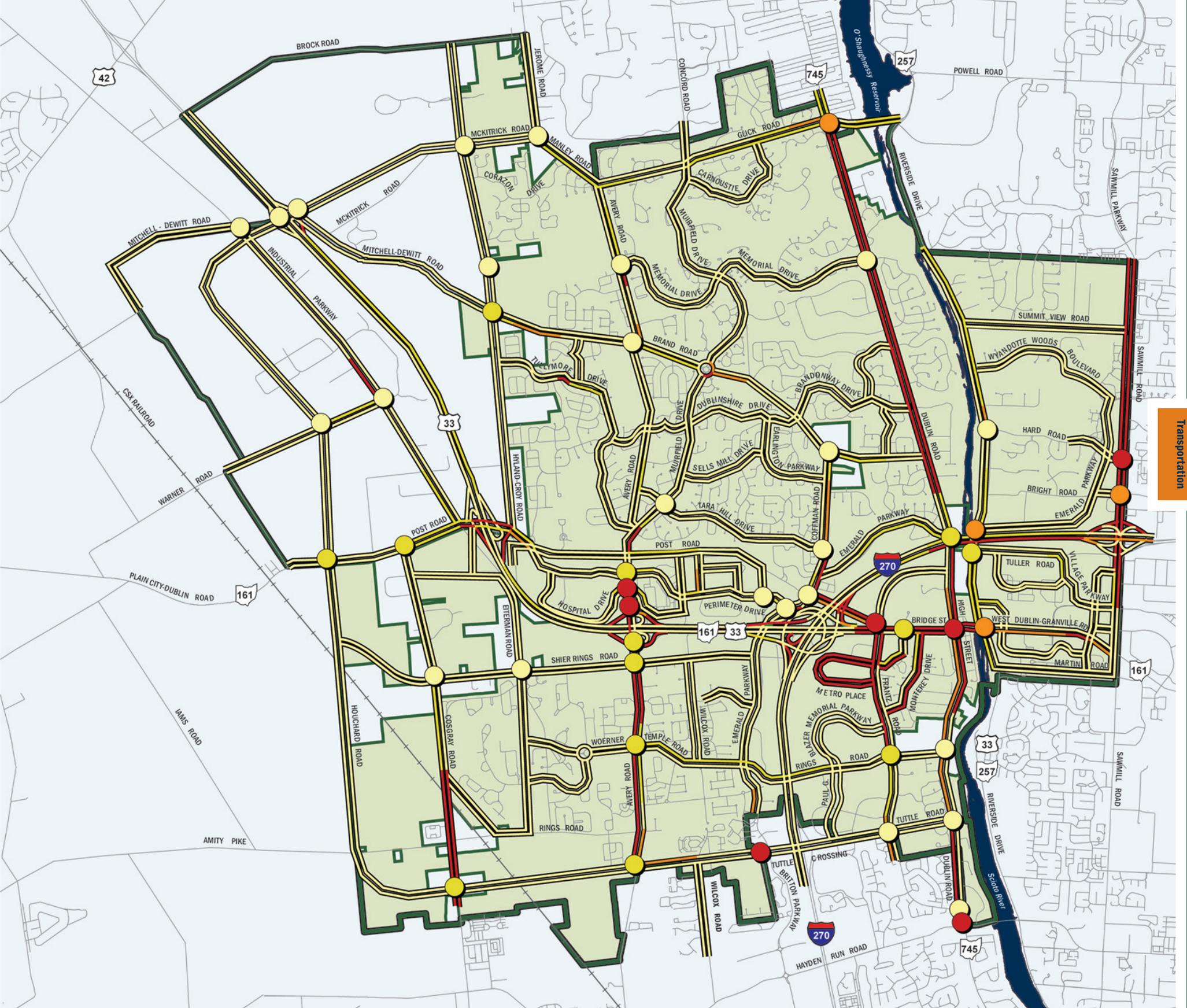


The Avery-Muirfield interchange is the only example in Ohio with internal water features and fountains.



Map 4.3 AM Peak Levels of Service, 2030





Map 4.4 PM Peak Levels of Service, 2030



III. THE TRANSPORTATION PLAN

The Community Plan is the key policy document for decision-making about Dublin's built and natural environments. The Community Plan text and associated maps contain detailed recommendations for future development including the appropriate location and density/intensity of residential and commercial uses; the general location and character of roads; the general location of parks, open space and public buildings; and the general sites for and extent of public water and sanitary sewer utilities. It also contains recommendations to guide development strategies for the unincorporated areas to the northwest and southwest of Dublin.

Throughout this Plan, recommendations are based upon a review of existing conditions and evaluation of future development scenarios for their impacts on infrastructure, roads and the City's fiscal health. Dublin's ability to maintain its high quality of services and quality of life is dependent upon careful review of development proposals for conformance with the Community Plan. The Transportation Plan and the Land Use Plan (see *Chapter 3 – Land Use*)

form the foundation of the Community Plan document. The Thoroughfare Plan, as shown on Map 4.5 and described in Table 4.3, is the primary reference tool within the Transportation Plan, while the Future Land Use Map (Map 3.3) is the primary planning instrument within the Land Use Plan. Both of these primary planning elements provide the foundation to guide decision-making regarding the appropriateness of development proposals and infrastructure improvements necessary to support future development.

A. The Thoroughfare Plan

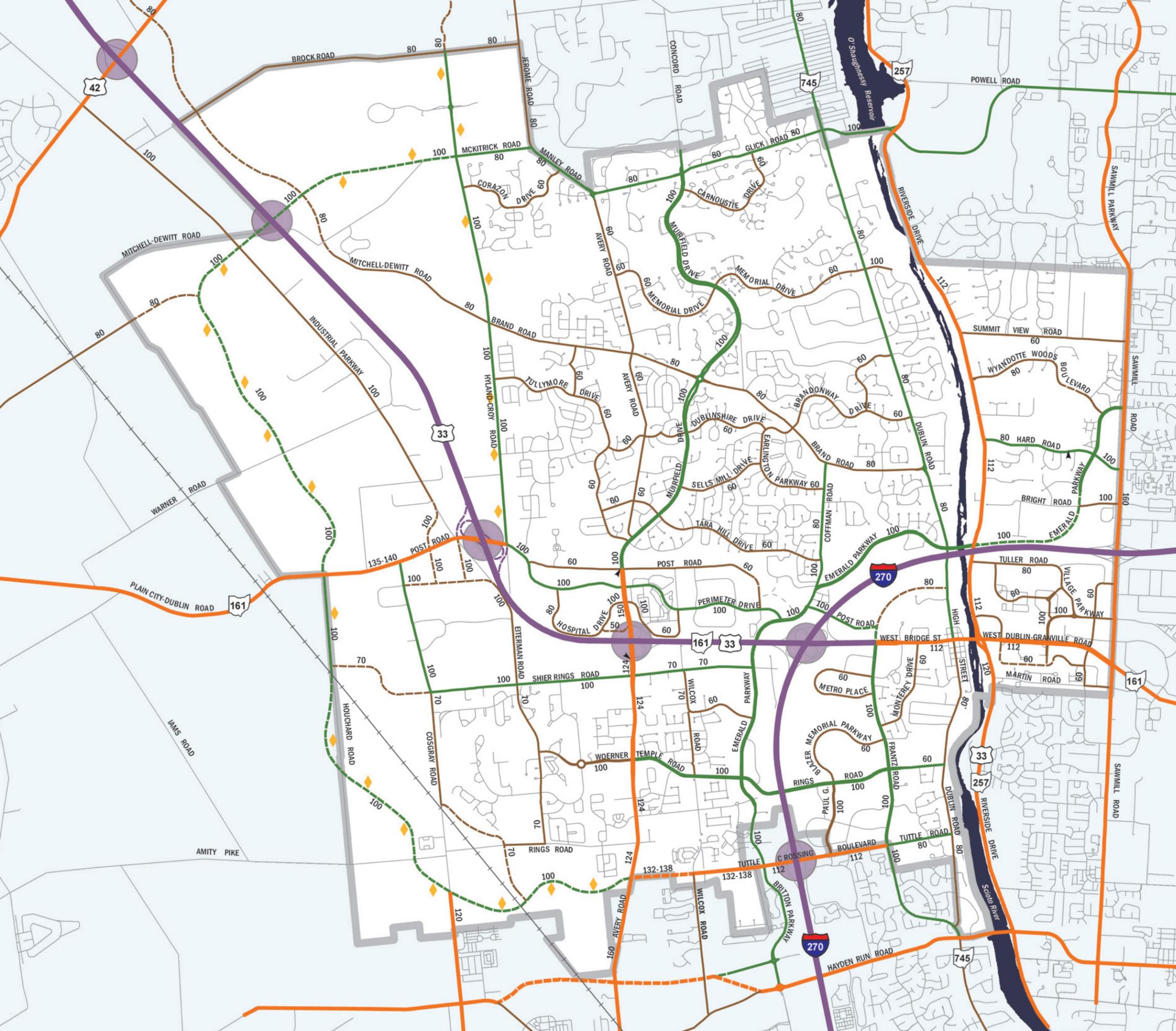
The Thoroughfare Plan is composed of two elements: (1) Map 4.5 showing existing and planned roads by functional classification and right-of-way width and (2) an associated Table 4.3 that describes each roadway and its planned improvement, including number of lanes. The roadway network shown on Map 4.6 graphically identifies the number of lanes needed to accommodate year 2030 development in Dublin.

Table 4.3 in more detail lists the improvements to the existing network. The functional classification of each

roadway and the number of existing lanes are shown. The table also shows the number of lanes in both directions. If the number of lanes is followed by a "D", this indicates roadways with a barrier median thus yielding a "divided" roadway. An odd number indicates an "undivided" roadway with center left turn lanes, as needed. Typical right-of-way widths are also shown. It should be noted that additional right-of-way may be necessary to properly accommodate required number of lanes and roadway geometrics. For more information regarding the Transportation Plan, maps, policies and intent, please contact the Engineering Department.

The Thoroughfare Plan is a guide to future road improvements.





FUNCTIONAL ROADWAY CLASSIFICATION

- | Existing | Future | |
|----------|--------|---|
| | | Freeway |
| | | Major Arterial |
| | | Minor Arterial |
| | | Collector |
| | | Local |
| | | Planned Interchange Improvement |
| | | Planned Right-of-Way Width (Feet) |
| | | Change in Right-of-Way |
| | | Planned Variable-Width Median
(Additional Right-of-Way as Necessary) |
| | | Railroad |
| | | Planning Area Boundary |



Future roadway alignments are schematic only, and are subject to change upon further study through the design process of the Capital Improvements Program.

Map 4.5 Thoroughfare Plan

Adopted:
Ordinance #58-07 December 10, 2007

Revised:

2007 Dublin Community Plan



CITY OF DUBLIN

Map 4.5 Thoroughfare Plan

Table 4.3 Thoroughfare Plan Functional Classification, Number of Lanes, and Right-of-Way

Road Segment	From	To	Recommended Functional Class	Number of Lanes		Right-of-Way Width (ft)	
				Existing	Planned	Existing	Planned
Avery-Muirfield Drive	U.S. 33 Interchange	Post Road	Major Arterial	4D	6D	150	150
Avery Road	Woerner Temple Road	U.S. 33 Interchange	Major Arterial	2/3	4D	124	124
Avery Road	Tuttle Crossing Boulevard (Proposed)	Woerner Temple Road	Major Arterial	2	4D	124	124
Avery Road	South City Line	Tuttle Crossing Boulevard	Major Arterial	2	4	100	160
Avery Road	Muirfield Drive	Glick Road	Collector Road	2/3	2/3	60	60
Blazer Memorial Parkway	Rings Road	Frantz Road	Collector Road	2/3	2/3	60	60
Blazer Memorial Parkway	Rings Road	Tuttle Crossing Boulevard	Collector Road	4D	4D	100	100
Brand Road	Avery Road	Hyland-Croy Road	Collector Road	2	4D	80	100
Brand Road	Avery Road	Dublin Road	Collector Road	2	2	80	80
Brandonway Drive	Brand Road	Dublin Road	Collector Road	2	2	60	60
Bridge Street (U.S. 33/SR 161)	Riverside Drive	Frantz Road	Major Arterial	4/5	4/5	112	112
Bright Road	Emerald Parkway	Sawmill Road	Collector Road	2	4D	60	100
Bright Road	Emerald Parkway	Riverside Drive (cul-de-sac)	Local Road	2	2	60	60
Carnoustie Drive	Muirfield Drive	Glick Road	Collector Road	2	2	60	60
Coffman Road	Emerald Parkway	North High School Drive	Minor Arterial	4/5	4/5	100	100
Coffman Road	North High School Drive	Brand Road	Minor Arterial	2/3	2/3	80	80
Commerce Pkwy	Post Road	Perimeter Drive	Collector Road	2	2	50	60
Corazon Drive	Hyland-Croy Road	Manley Road	Collector Road	2	2	60	60
Cosgray Road	Dublin South Corp. Limit	Tuttle Crossing Boulevard (Proposed)	Major Arterial	2	4D	100	120
Cosgray Road	Tuttle Crossing Boulevard (Proposed)	Shier Rings Road	Collector Road	2	2/3	60	70
Cosgray Road	Shier Rings Road	SR 161	Minor Arterial	2	4D	100	100
Dale Drive	SR 161	Riverside Drive	Collector Road	2/3	2/3	60	60
Dublin Center Drive	Sawmill Road	SR 161	Collector Road	2/3	2/3	60	60
Dublin Road (SR 745)	Dublin North Corp. Limit	North of Emerald Parkway	Minor Arterial	2/3	2/3	80	80
Dublin Road (SR 745)	North of Emerald Parkway	South of I-270	Minor Arterial	4/5	4/5	80	80-100
Dublin Road (SR 745)	South of I-270	Bridge Street (SR 161)	Minor Arterial	2/3	2/3	80	80
Dublin Road (SR 745)	Bridge Street (SR 161)	Frantz Road	Collector Road	2/3	2/3	80	80
Dublinshire Drive	Tullymore Drive	Muirfield Drive	Collector Road	2	2	60	60
Dublinshire Drive	Muirfield Drive	Earlington Parkway	Collector Road	2	2	60	60
Dublinshire Drive	Muirfield Drive	Wynford Drive	Collector Road	2	2	60	60
Earlington Pkwy	Brand Road	Coffman Road	Collector Road	2	2	60	60

Table 4.3 (continued) Thoroughfare Plan Functional Classification, Number of Lanes, and Right-of-Way

Road Segment	From	To	Recommended Functional Class	Number of Lanes		Right-of-Way Width (ft)		
				Existing	Planned	Existing	Planned	
Eiterman Road	University Boulevard (Proposed)	Shier Rings Road	Collector Road	2	4D	70	100	
Eiterman Road	Shier Rings Road	Woerner Temple Road	Collector Road	2D	2D	70	70	
Eiterman Road	Woerner Temple Road	Ballantrae Place	Collector Road	2D	2D	70	70	
Eiterman Road	Ballantrae Place	Rings Road	Collector Road	-	2D	70	70	
Eiterman Road (W. Extension)	University Boulevard (Proposed)	Cosgray Rd. at Fishel Dr. N.	Collector Road	-	4D		100	
Emerald Parkway	South Corporation Limit	Rings Road	Minor Arterial	2/3	4D	100	100	
Emerald Parkway	Rings Road	Innovation Drive	Minor Arterial	4D	4D	100	100	
Emerald Parkway	Innovation Drive	Shier Rings Road	Minor Arterial	4D	4D	100	100	
Emerald Parkway	Shier Rings Road	Perimeter Drive	Minor Arterial	4D	4D	100	100	
Emerald Parkway	Perimeter Drive	Post Road	Minor Arterial	4D	4D	100	100	
Emerald Parkway	Coffman Road	Dublin Road	Minor Arterial	4D	4D	100	100	
Emerald Parkway	Dublin Road	Riverside Drive	Minor Arterial	4D	4D	100	100	
Emerald Parkway	Riverside Drive	Hard Road	Minor Arterial	-	4D	100	100	
Emerald Parkway	Hard Road	Sawmill Road	Minor Arterial	4D	4D	100	100	
Frantz Road	SR 161	Hayden Run Road	Minor Arterial	4D	4D	100	100	
Frantz-Dublin Connector	SR 161	Dublin Road	Minor Arterial	-	2/3		80	
Glick Road	Avery Road	Dublin Road	Minor Arterial	2	2	80	80	
Glick Road	Dublin Road	Riverside Drive	Minor Arterial	2/3	4	80	100	
Hard Road	Riverside Drive	Sawmill Road	Minor Arterial	2/3	2/3	80-100	80-100	
Hospital Drive	Perimeter Drive	Avery-Muirfield Drive	Collector Road	2/3	2/3	80-100	80-100	
Houchard Road	Amity Pike	SR 161	Minor Arterial	2	4D	70	100	*
Houchard Road	SR 161	Warner Road	Minor Arterial	-	4D		100	*
Houchard Road	Warner Road	McKitrick Road	Minor Arterial	-	4D		100	*
Dublin Memorial Hospital Ingress (Proposed)	Avery-Muirfield Drive at U.S. 33 WB Off Ramp	Dublin Memorial Hospital	Collector Road	-	1		50	
Hyland-Croy Road	Post Road	Brock Road	Minor Arterial	2	4D	80	100	*
Hyland-Croy Road	Brock Road	Wells Road	Collector Road	2	2	80	80	
Industrial Parkway	U.S. 42	Weldon Road	Collector Road	2	4D	100	100	
Industrial Parkway	Weldon Road	SR 161	Collector Road	2	4D	100	100	
Innovation Drive	Wilcox Road	Emerald Parkway	Collector Road	2/3	2/3	60	60	
Krier Drive	SR 161	Martin Road	Collector Road	2	2	60	60	

Table 4.3 (continued) Thoroughfare Plan Functional Classification, Number of Lanes, and Right-of-Way

Road Segment	From	To	Recommended Functional Class	Number of Lanes		Right-of-Way Width (ft)		
				Existing	Planned	Existing	Planned	
Manley Road	Jerome Road	Avery Road	Minor Arterial	2	2	80	80	
Martin Road	Krier Drive	Sawmill Road	Collector Road	2/3	2/3	60	60	
McKittrick Road	U.S. 33 Interchange (Proposed)	Hyland-Croy Road	Minor Arterial	2	4D	80	100	*
McKittrick Road	Hyland-Croy Road	Jerome Road	Minor Arterial	2	2	80	80	
Memorial Drive	Avery Road	Dublin Road	Collector Road	2	2	60	60	
Metro Place	Frantz Road	Frantz Road	Collector Road	2	2	60	60	
Mitchell-Dewitt Road	McKittrick Road	Hyland-Croy Road	Collector Road	2	2	80	80	
Monterey Drive	Frantz Road	SR 161	Collector Road	2	2	60	60	
Muirfield Drive	Avery-Muirfield Drive	Glick Road	Minor Arterial	4D	4D	100	100	
Perimeter Drive	Holt Rd./Perimeter Loop Drive	Avery-Muirfield Drive	Minor Arterial	4/5	4/5	100	100	
Perimeter Drive	Holt Rd./Perimeter Loop Drive	Emerald Parkway	Minor Arterial	2/3	4/5	100	100	
Perimeter Drive (West of Avery-Muirfield)	Avery-Muirfield Drive	Post Road	Minor Arterial	4/5	4/5	100	100	
Perimeter Loop Road	Avery-Muirfield Drive	Perimeter Drive	Collector Road	2/3	2/3	60-80	60-100	
Post Road	Avery-Muirfield Drive	Commerce Pwky	Collector Road	2	2	60	60	
Post Road	Emerald Parkway	SR 161/Frantz Road	Minor Arterial	4/5	4/5	100	100	
Post Road (West)	U.S. 33/Post Road Interchange	Hyland-Croy Road	Major Arterial	2/3	4D	100	125	
Post Road (West)	Perimeter Drive	Avery-Muirfield Drive	Collector Road	2	2	60	60	
Post Road (West)	Hyland-Croy Road	Perimeter Drive	Collector Road	4/5	4/5	100	100	
Rings Road	Frantz Road	Emerald Parkway	Minor Arterial	4/5	4/5	100	100	
Rings Road	Dublin Road	Frantz Road	Minor Arterial	2	2	60	60	
Rings Road	Avery Road	Dublin West Corp. Limit	Local Road	2	2	60	60	
Rings-Cosgray Connector (Amlin Bypass)	Cosgray Road	Rings Road	Minor Arterial	-	2/3		70	
Riverside Drive (U.S. 33)	Dublin South Corp. Limit	SR 161	Major Arterial	2	2	120	120	
Riverside Drive (SR 257)	SR 161 (West Dublin-Granville Road)	Glick Road	Major Arterial	4	4	112	112	
Sawmill Road	SR 161 (West Dublin-Granville Road)	I-270 Interchange	Major Arterial	4	4	160	160	
Sawmill Road	I-270 Interchange	Franklin-Delaware County Line	Major Arterial	4	6	160	160	
Sells Mill Drive	Muirfield Drive	Earlington Parkway	Collector Road	2	2	60	60	
Shamrock Boulevard	Tuller Ridge Drive	SR 161	Collector Road	2	2/3	100	100	
Shier Rings Road	Avery Road	Emerald Parkway	Minor Arterial	2	2	70	70	
Shier Rings Road	Cosgray Road	Avery Road	Minor Arterial	2	4D	100	100	

Table 4.3 (continued) Thoroughfare Plan Functional Classification, Number of Lanes, and Right-of-Way

Road Segment	From	To	Recommended Functional Class	Number of Lanes		Right-of-Way Width (ft)	
				Existing	Planned	Existing	Planned
Shier Rings Road	Cosgray Road	Houchard Road	Collector Road	-	2		70
SR 161	Dublin West Corp. Limit	U.S. 33/Post Road Interchange	Major Arterial	2	4D	100	135 - 140
SR 161 (West Dublin-Granville Road)	Riverside Drive	Sawmill Road	Major Arterial	4D	4D	112	112
Stoneridge Lane (Extension)	Krier Drive	SR 161	Collector Road		2/3		60
Summit View Road	Riverside Drive	Sawmill Road	Collector Road	2	2	60	60
Tara Hill Drive	Coffman Road	Muirfield Drive	Collector Road	2	2	60	60
Tara Hill Drive	Muirfield Drive	Avery Road	Collector Road	2	2	60	60
Tuller Ridge Drive	Tuller Road	Village Parkway	Collector Road	2	2	60	60
Tuller Road	Riverside Drive	Village Parkway	Collector Road	2/3	2/3	80	80
Tullymore Drive	Hyland-Croy Road	Avery-Muirfield Drive	Collector Road	2	2	60	60
Tuttle Crossing Boulevard	Emerald Parkway	Frantz Road	Major Arterial	4/5	4/5	112	112
Tuttle Crossing Boulevard	Emerald Parkway	Wilcox Road	Major Arterial	2	4D	132-138	132-138
Tuttle Crossing Boulevard	Wilcox Road	Avery Road	Major Arterial	-	4D	132-138	132-138
Tuttle Crossing Boulevard	Avery Road	Cosgray Road	Minor Arterial	-	4D		100 *
Tuttle Crossing Boulevard	Cosgray Road	Amity Pike	Minor Arterial	-	4D		100 *
Tuttle Road	Frantz Road	Dublin Road	Minor Arterial	2	2	80	80
University Boulevard (Proposed)	SR 161 (West of Post Road Interchange)	Eiterman Road	Collector Road	-	4D		100
Village Parkway	Tuller Road	Dublin Center Drive	Collector Road	2	2	80	80
Village Parkway	Sawmill Road	Dublin Center Drive	Collector Road	4D	4D	100	100
Wareham/Westbury Drive	Tullymore Drive	Brand Drive	Collector Road	2	2	60	60
Wexford Woods Drive	Avery Road	Tullymore Drive	Collector Road	2	2	60	60
Wilcox Road	Tuttle Crossing Boulevard	Dublin South Corp. Limit	Collector Road	2	2	100	100
Wilcox Road	Woerner Temple Road	Shier Rings Road	Collector Road	2	2	70	70
Windwood Drive	Brandonway Drive	Dublin Road	Collector Road	2	2	60	60
Woerner Temple Road	Avery Road	Emerald Parkway	Minor Arterial	4D	4D	100	100
Woerner Temple Road	Eiterman Road	Avery Road	Collector Road	2D	2D	100	100
Wyandotte Woods Boulevard	Riverside Drive	Emerald Parkway	Collector Road	2	2	80	80
Wynford Drive	Dublinshire Drive	Tullymore Drive	Collector Road	2	2	60	60

* Planned Variable-Width Median (Additional Right-of-Way as necessary)

Functional Classification of Roadways

For thoroughfare planning and design purposes, roads are generally classified by function and have two purposes: to provide mobility and to provide access to property. The four functional roadway classifications used as part of the Community Plan are major arterials, minor arterials, collector streets and local streets. The road hierarchy from most to least important is as follows (See Figure 4.1):

Major arterials serve the major activity centers of urbanized areas, the highest traffic volume corridors and the longest trips. This type of facility provides service for significant intra-area travel (such as between central business districts and outlying residential areas), travel between major inner-city communities, and commutes between major suburban centers. Frequently, the major arterial system carries intra-urban and inter-city bus routes. Service to abutting land is subordinate to travel service. The major arterial system is stratified by: (1) interstates, (2) other freeways and (3) other major roadways (with partial or no control of access).

Minor arterials interconnect with and augment the major arterial system. This type of facility will accommodate trips of moderate length at a somewhat lower level of mobility than major arterials. This system places more emphasis on land access and may carry local bus routes, but ideally does not penetrate identifiable neighborhoods.

Collector streets provide both access to property and traffic circulation within residential neighborhoods and commercial or industrial areas. This system collects traffic from local streets, accessing the residential neighborhoods, and disperses it to the arterial system. The collector street system may also carry local bus routes.

Local streets comprise all facilities not found in one of the higher systems. These primarily facilitate direct access to abutting land and connect to the higher order systems. They offer the lowest level of mobility and usually contain no commuter bus routes. Service to through-traffic movement usually is deliberately discouraged.

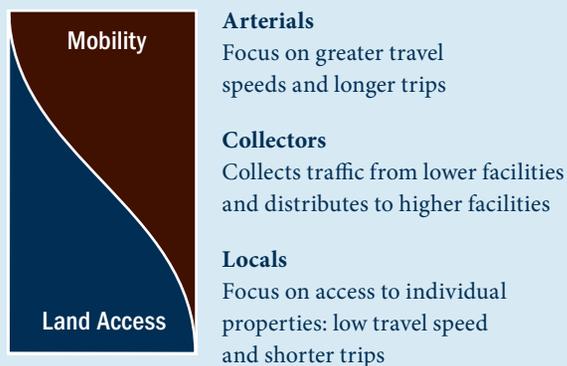
B. 2007-2030 Roadway Improvements by Lead Sponsor

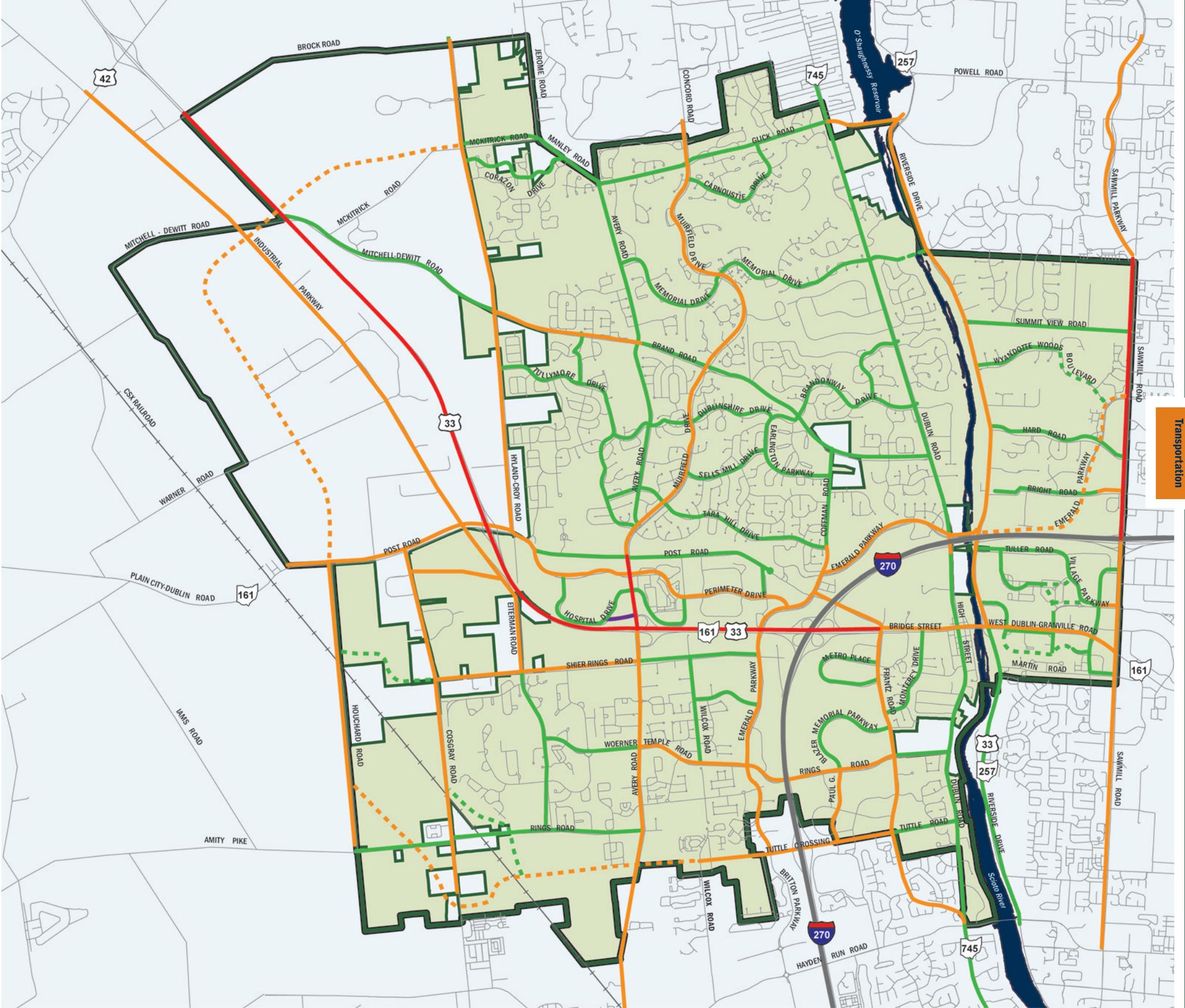
Many of the projects identified in the Thoroughfare Plan are outside of Dublin's jurisdiction. Map 4.7 shows improvements by lead sponsor agency, whether the City of Dublin, the City of Columbus, the City of Hilliard, Franklin County, Union County, or possibly Delaware County. Many projects outside the corporation limits of Dublin have a substantial impact for Dublin's residents or employees. Participation by Dublin for some projects near the City's borders may be prudent to improve mobility to homes and major employment centers.

C. Phasing of Roadway Improvements

As a basis for the fiscal analysis, a phasing of roadway improvements was defined for the year 2030 roadway network. Expected phasing of projects is illustrated on Map 4.8. Improvements identified for the period between 2007 and 2011 are recognized in the 2007-2011 Capital Improvements Program (CIP) or are anticipated to be constructed by developers.

Figure 4.1 Road Hierarchy

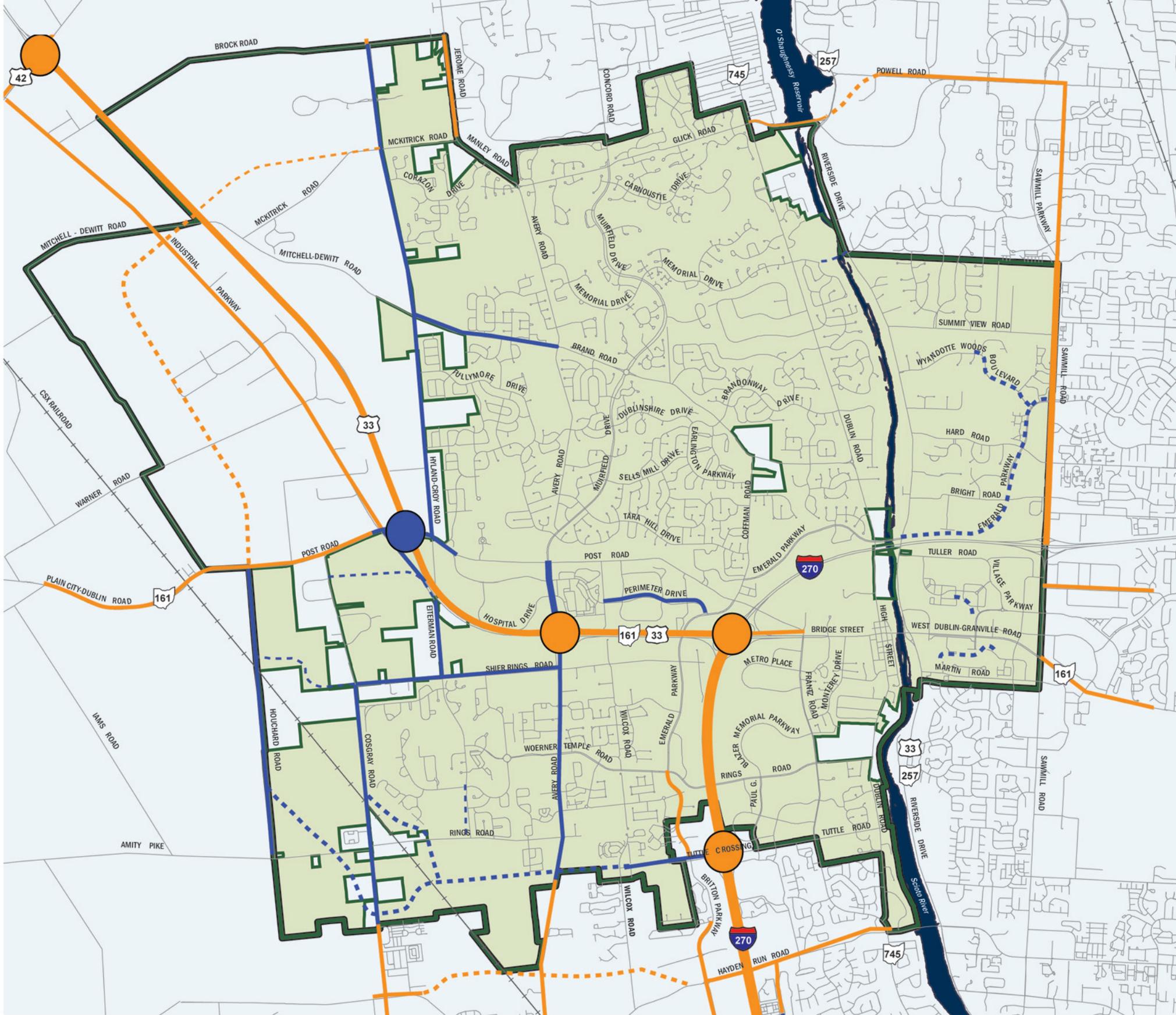




- Planning Area
- City of Dublin
- 1 Lane
- 2 Lanes
- 4 Lanes
- 6 Lanes
- 8 Lanes



Map 4.6 Number of Lanes, Dublin Thoroughfare Plan, 2030



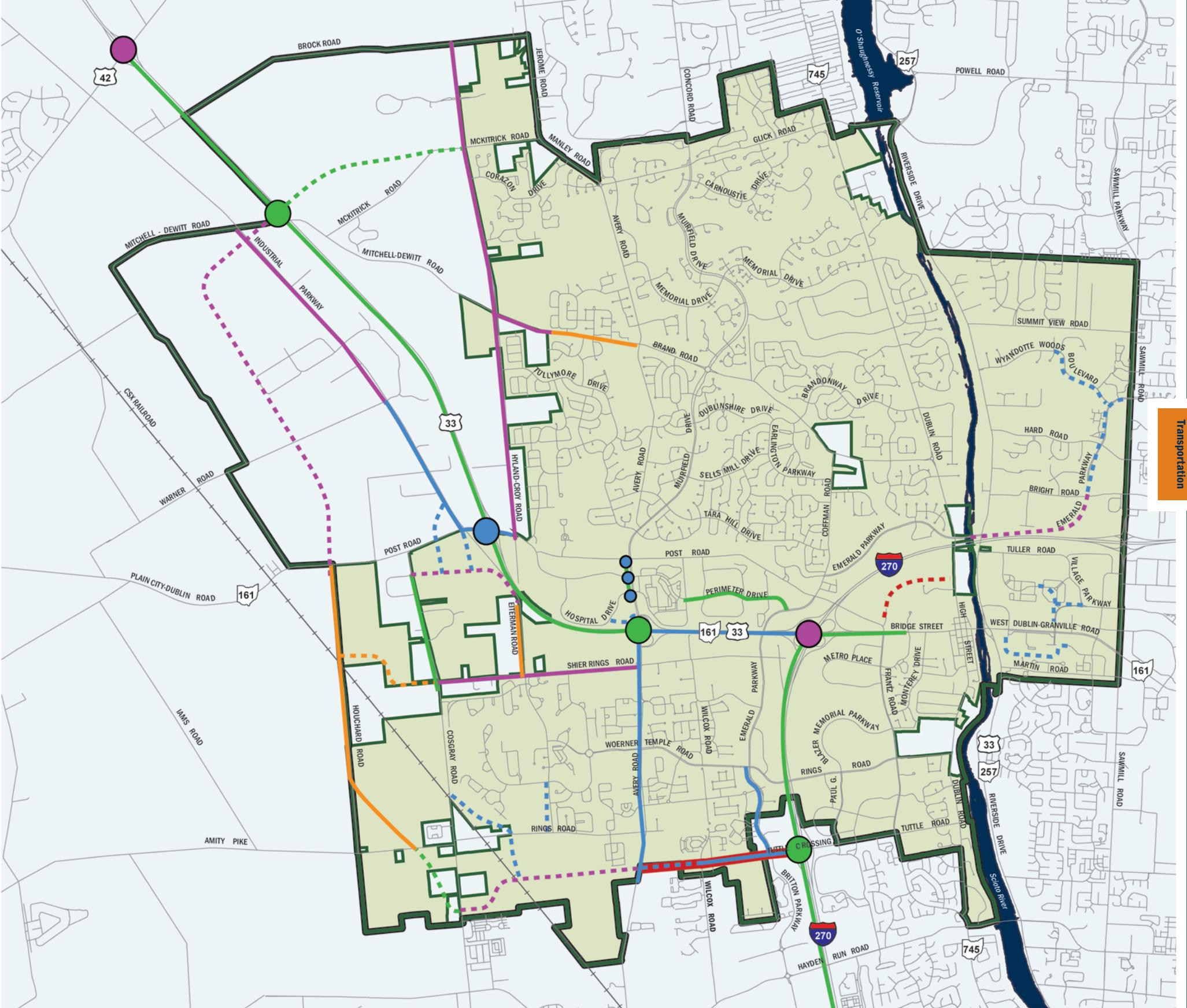
- Planning Area
- City of Dublin

- | Roadway Widening | New Roadway | Interchange Improvement |
|---|---|--|
| Dublin | | |
| Other Jurisdiction | | |



Map 4.7 Dublin Thoroughfare Plan, Improvements by Lead Sponsor, 2007-2030





- | | | | |
|---------------------|---------------------|-------------------------|---------------------|
| Planning Area | Roadway Improvement | Roadway Improvement | Roadway Improvement |
| City of Dublin | New Roadway | New Roadway | New Roadway |
| Roadway Improvement | Roadway Improvement | Interchange Improvement | |
| New Roadway | New Roadway | | |



Map 4.8 Dublin Thoroughfare Plan, Phasing of Roadway Improvements

IV. PUBLIC TRANSPORTATION

The Central Ohio Transit Authority (COTA) provides transportation alternatives for Dublin and the Greater Columbus area. The regional agency strives to be the transportation provider for Central Ohio... “with safe, reliable, convenient, affordable and user-friendly transportation for every resident and visitor.” COTA is funded primarily by sales tax, but also receives additional financial support through passenger fares, federal and state assistance, interest payments and other financial mechanisms. In 1993, COTA and the Mid-Ohio Regional Planning Commission (MORPC) prepared a comprehensive *Long-Range System Plan* that defined transit needs for the region. More recently in August 2006, the COTA Board of Trustees adopted the report, *Long-Range Transit Plan: 2006 to 2030*, outlining its four major future objectives:

- Expansion of fixed-route bus service throughout Central Ohio
- Increased service for persons with disabilities (paratransit)

- Introduction of technologies to make transit more convenient and user-friendly
- Planning for future transit investments (transit centers, park and rides, acquisition of rights-of-way in strategic corridors and other transit initiatives)

Dublin is a major employment center within the Columbus metropolitan region, and most routes are intended to link the City’s largest corporate residents. Current bus lines include three express routes, one local route and a seasonal crosstown route.

According to COTA’s projections, the Dublin area is expected to have the greatest level of future employment growth for the metropolitan transit planning area. Based upon these expected trends, a significant increase in service to Dublin is proposed. Adopted plans recommend three additional crosstown routes to provide better suburb-to-suburb service, a new local route for residents and a new express route for commuters to downtown Columbus. Expansion of services routes is focused near the Dublin Methodist Hospital, and

COTA Transit Routes (Existing and Future):

Express Routes

#58 Dublin: Looped service from the downtown up Riverside Drive to Dublin with service to the Dale Drive Park & Ride facility. Service continues through Historic Dublin to Metro Center and other employment centers along Frantz Road such as Nationwide Insurance and Ashland Chemical circling back to Riverside Drive at Hayden Run Road.

#57 Hilliard: Provides service from Emerald Parkway and Tuttle Crossing down Wilcox Road to Avery and south through Hilliard to downtown Columbus.

#56 Tuttle: Service from Emerald Parkway and Tuttle Crossing through employment centers along Parkwood Place, Parkcenter Circle and Blazer Parkway onto I-270 to the downtown.

Future: Express crosstown route from Tuttle Crossing to Morse Road.

Local Routes

#18 Kenny: Local service from Nationwide Insurance on Blazer Parkway down Frantz to Bethel, continuing south through the OSU campus area to downtown Columbus.

Future: Local service along Sawmill Road.

Crosstown (Seasonal) Routes

#98 Columbus Zoo: Provides service during warm weather months from the Columbus Zoo down Riverside Drive to downtown Columbus.

Future:

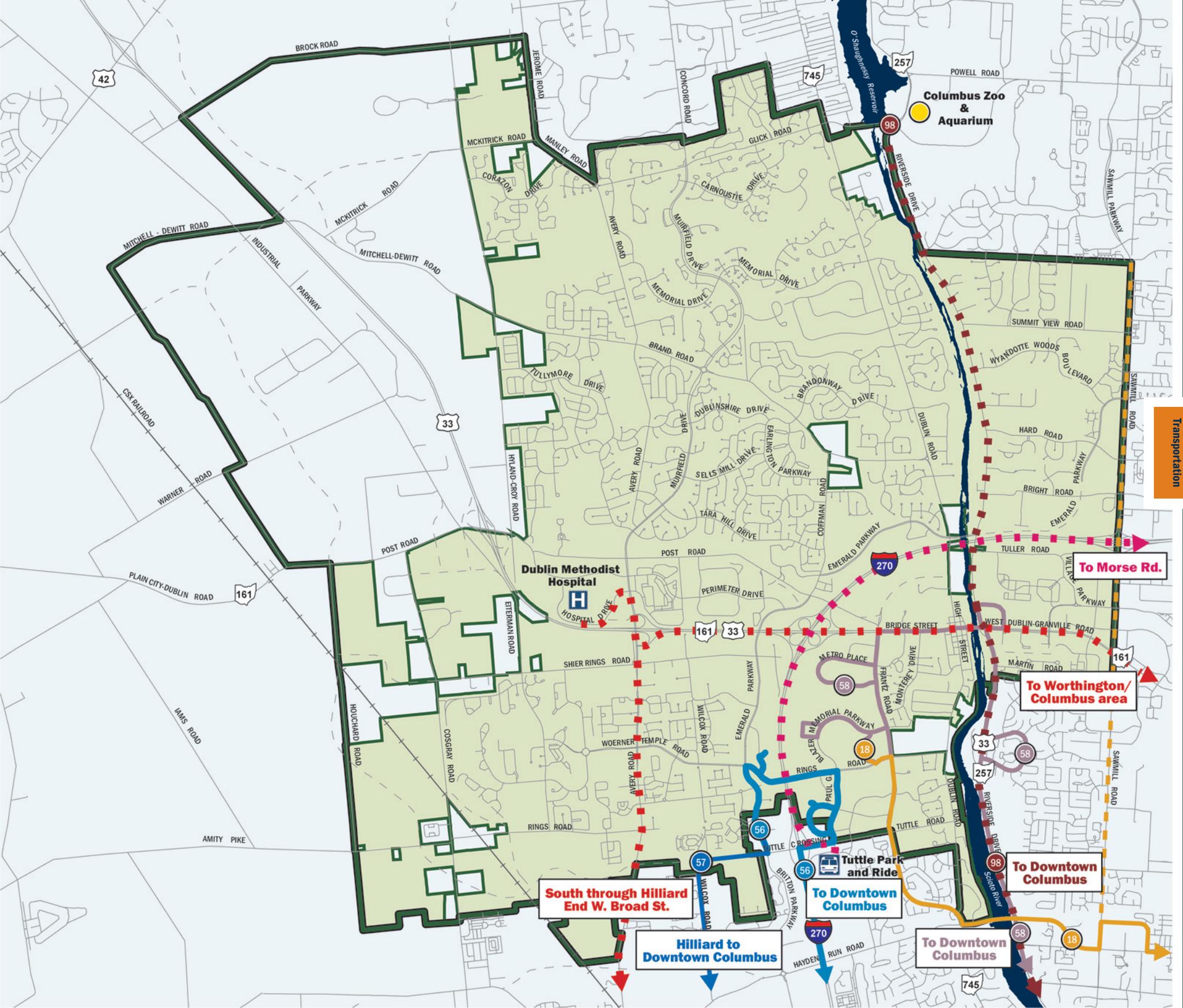
- Crosstown from Dublin Methodist Hospital south along Avery Road and Hillard-Rome Road to West Broad Street.
- Crosstown along State Route 161 from Dublin Methodist Hospital to the Worthington/Columbus area.



The Central Ohio Transit Authority provides four major types of transit routes:

Local
Express
Crosstown
LINK (local circulators)

For more about COTA and route information, log on to www.cota.com



- Planning Area
- Local Route 18
- Express Route 57
- Seasonal Crosstown Route 98
- City of Dublin
- Proposed Local Route
- Express Route 58
- Proposed Crosstown
- Express Route 56
- Proposed Express



Map 4.9 Transit Routes

a future park and ride facility is expected to complement the existing Dale Drive location. Two additional park and ride locations are proposed south of Dublin in the Hayden Run corridor, and three LINK routes are proposed in the Tuttle Crossing, Hayden Run and Sawmill areas.

As further discussed in *Chapter 8 - Demographics*, Dublin's transportation patterns are largely shaped by its employment base. Every weekday, the City nearly doubles in size as workers from throughout Central Ohio travel to Dublin; likewise, Dublin residents commute to professional and managerial jobs in downtown Columbus and other suburban centers. The ability to have transportation options for workers, particularly in the service sector, will be an important consideration for Dublin's future ability to attract and maintain corporations. Providing additional ride opportunities to the downtown area will also add additional flexibility for travel options.

As Dublin continues to expand and mature, both transportation and land use policies should address the need to preserve future transit options. The encouragement of circulator routes

between major employment nodes, shopping areas and entertainment centers within the City should be considered as the need arises. Areas such as the SR 161 corridor should be targeted for higher density development to facilitate ridership within the City core, and consideration should be given to locations for future transit centers and park and ride facilities. Efforts should also be made to maintain open space corridors in the Southwest Area and U.S. 33 Corridor Area that will permit the integration of additional long-term rail options (spurs, station locations, etc.) as the region urbanizes and Dublin is no longer located on the suburban fringe.

Transit options should better link major employment and entertainment centers in the future.



*Expected employment growth in
Dublin will support long-term
improvements in transit service*



V. THE BIKEWAY PLAN

The City of Dublin plans for bicycle facilities in conjunction with planning for other transportation modes. Bikeways should be adequately located and designed to link traffic generators such as schools, parks, civic uses, shopping centers, major residential neighborhoods and employment centers. A bicycle network should also include more than one type of facility to meet the needs of a variety of riders with different skill levels. Existing roadways should serve as the base system to provide for the travel needs of cyclists. Bicycle paths and lanes, especially in scenic corridors, parks and areas where access is limited, should augment the network. Throughout this Plan, the term 'bikeway' is used as a common word to define any road, path or route that is specifically designated for bicycle travel. It may be designated for the exclusive use of bicycles or be shared with other transportation modes. The following are more specific definitions of bikeway components:

- Generally, a *bike path* is a separate off-street path. It may be constructed next

to existing roadways or along rivers, utility rights-of-way, or abandoned railroad rights-of-way to connections within and between neighborhoods or within and between parks.

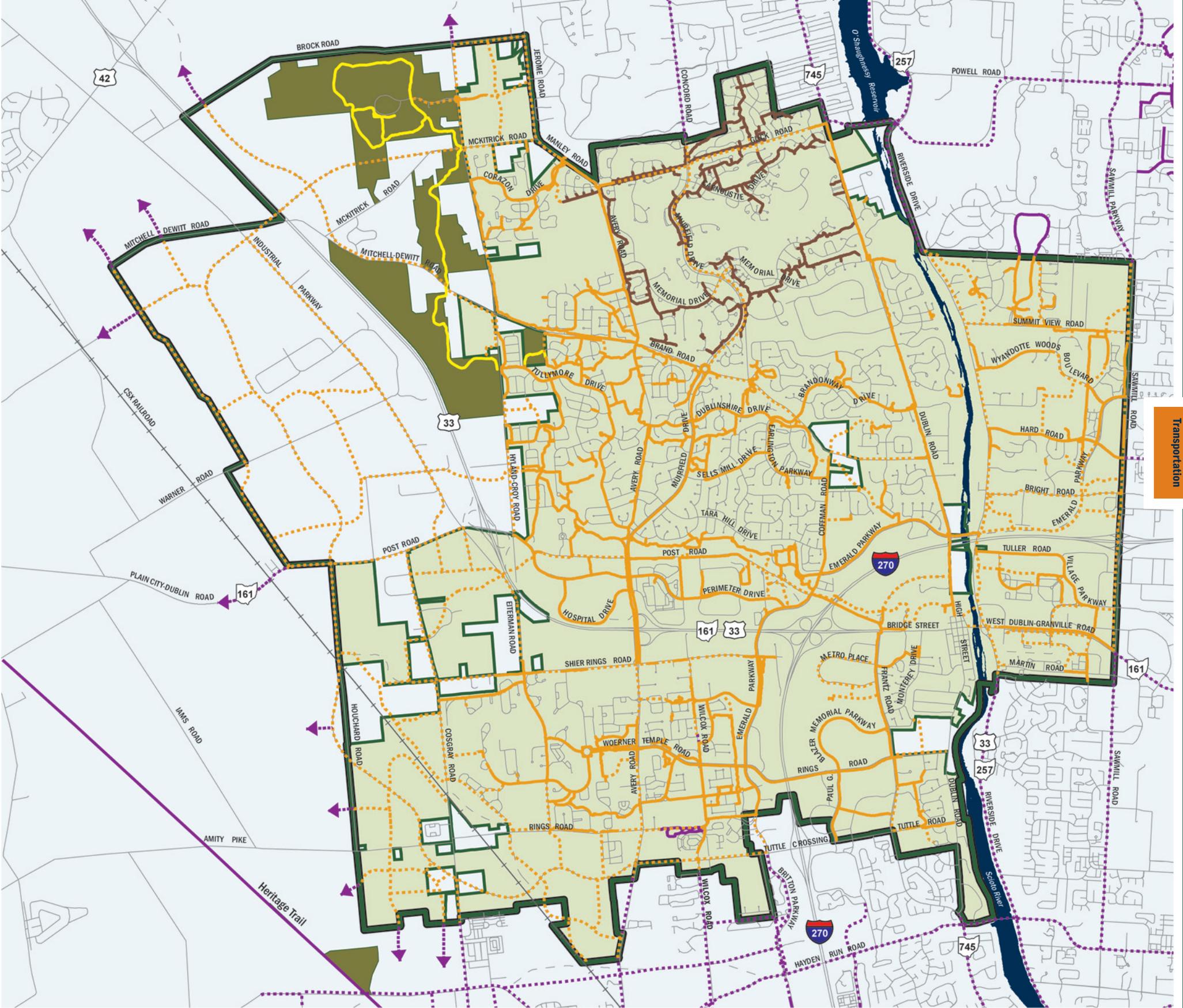
- A *bike lane* is a portion of a roadway that has been designated by striping, signing and/or pavement markings for the preferential or exclusive use of bicycles.
- A *bike route* is designated by signage along roadways to indicate their appropriateness for bicycle travel, usually with no other bicycle-related improvements.
- The term *bicycle facility* is used to denote improvements and provisions made to accommodate or encourage bicycling such as bicycle racks, lockers and employer-provided showers.

The future bikeway system will connect to and continue the existing system. This network unites the City and provides access to both existing and proposed parks, schools, community facilities, shopping areas and employment centers. The regional network provides commuting routes to Columbus, access to

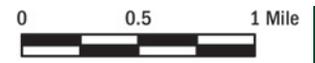
regional bikeways (such as the Ohio Rails-to-Trails system) and links to regional recreation facilities such as the Columbus Zoo and Antrim Park. Map 4.10 provides a general illustration of Dublin's existing and proposed bikeway system, including regional bikeway connections. For more information, please refer to the *Dublin Parks and Recreation Master Plan* and the MORPC *Regional Bikeway Plan* or other applicable planning documents.

Biking should be more than a recreational option for residents.





- | | | | | |
|----------------|--------------------|------------|-----------------|--------------------|
| Planning Area | Existing Bikeways | | Future Bikeways | |
| City of Dublin | City of Dublin | Private | City of Dublin | Other Jurisdiction |
| Metropark | Other Jurisdiction | Metro Park | | |



Map 4.10 Bikeways

VI. ROADWAY CHARACTER

Roadway character is defined by the overall visual experience created by physical elements adjacent to the roadway. Character types vary greatly and can evoke a variety of responses that create an immediate psychological effect on motorists. These effects can persist to create long-lasting impressions for residents and visitors about the City and Dublin's community values. Components that contribute to the definition of roadway character include: road design and construction standards; setbacks and buffering between adjacent uses; building types and architectural styles; landscaping within the right-of-way and adjacent areas, and the basic underlying geographic qualities of the area.

As a development tool, the Community Plan identifies the desired roadway character of major thoroughfares throughout Dublin and the surrounding planning area. These designations assist in the preservation of existing character and guide future development and the long-term improvement of Dublin's roadways. Some road corridors are particularly scenic and should be

protected during zoning and development requests, while others should be targeted for enhancement as growth occurs.

Preserving and creating road character begins by defining a vision for how a particular road should look and feel and continues by determining what elements are needed to carry out the vision. Dublin's major thoroughfares generally include visual quality that falls within four major categories: *Rural Character*, *River Character*, *Village Character* and *Dublin Character*. Each category includes a description of the elements commonly present that contribute to specific roadway character type. The Community Plan provides a determination of what major elements should be incorporated to achieve the vision.

Rural Character

This character results from the cultural and historic use of the region for agricultural purposes. The roadways are typical of unincorporated areas or old township roads and are informal, evoking a sense of the past prior to development and include the following:

Rural Character incorporates elements denoting Dublin's agricultural roots.



Stone walls, woodland and water typify roads with River Character.

- Application of generous setbacks ranging from 100 to 200 feet
- Integration of open views and vistas into adjacent development perhaps greater than 200 feet in some areas to increase the sense of openness
- Provision of informal landscaping that focuses on native plant species and naturalized forms (meadows, wildflowers, grasses, wetland areas etc.)
- Use of trees, fencerows and woodland plantings to provide additional screening and sense of enclosure
- Preservation of historic farmsteads, barns or outbuildings that emphasize the agrarian history of the area
- Creation of meandering bike paths and sidewalks that are informally designed as to not be entirely visible from the roadway
- Design of naturalized ponds with aquatic plants and informal edges
- Use of stone walls and split rail fences that are traditionally used in the countryside

- Integration of “rural” road design that may include berms, swales and/or variable medians
- Provision of shared entrances to minimize curbcuts and maintain openness

River Character

This character is primarily the result of natural processes on the land over the course of many years. The river corridor possesses dramatic topographical changes, is heavily wooded and includes the Scioto River and its tributaries.

- Use of modest setbacks ranging from 60 to 100 feet
- Creation of roadway width and alignment to follow stream corridors or respond to existing natural features
- Use of woodland plantings and incorporation of landforms to create topographic change and shape views
- Integration of stone walls and stone outcrops to provide ties to surrounding topography

- Design of informal water features to blend with the surrounding character of the river corridor
- Use of swales and berms instead of constructed curb and gutter for informal feel
- Installation of informal landscape designs to enhance the natural appearance along the river corridor

Village Character

This character is based on traditional village development that includes street patterns of regularly spaced blocks in a grid pattern framed by richly detailed architecture. The scale is highly pedestrian, with cars and people sharing limited space.

- Provision of smaller building setbacks ranging from 0 to 25 feet
- Use of pedestrian-oriented streetscapes with narrower travel lanes and on-street parking
- Creation of grid-like street pattern to enhance ability to walk
- Design of off-street parking to the side and rear of buildings



Village Character emphasizes a very pedestrian-oriented scale and feel.

- Integration of service alleys and rear garage access to improve pedestrian character of streets
- Creation of formal pedestrian sidewalks
- Use of small parks, plazas, and public spaces to provide character
- Focus on architectural detailing and pedestrian-scale signs
- Integration of street lights and furniture (benches, waste receptacles, bike racks, etc.)
- Use of picket fences, wrought iron, gates, arbors or similar elements to add detailing
- Design of curvilinear roads with landscaped medians and meandering bike paths
- Installation of formal, maintained landscape treatments
- Focus on ponds and water features with maintained and/or hardscaped edges
- Use of variable mounding with landscaping to screen uses along roadways
- Primarily curb and gutter design, but may include swales and berms

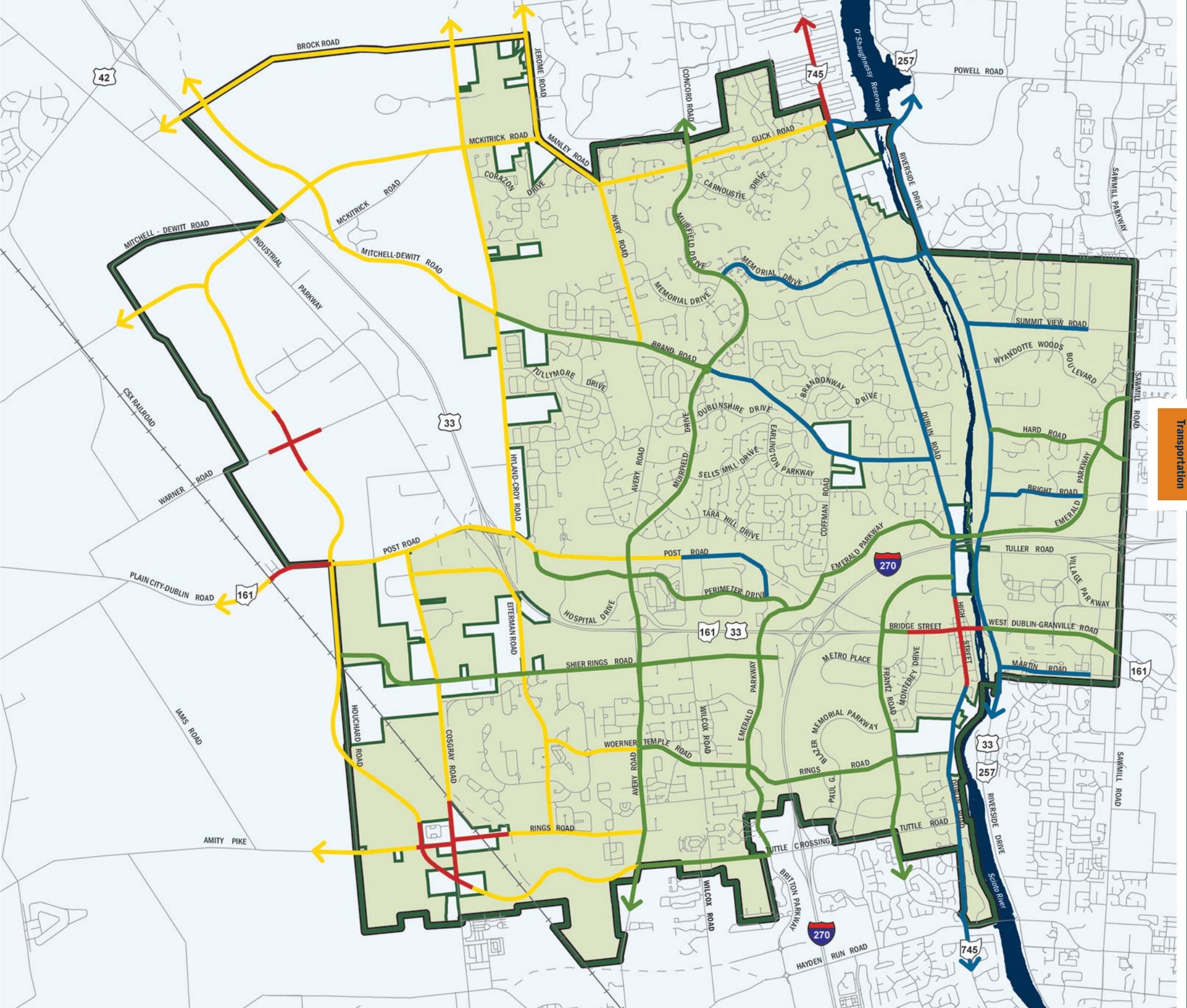
Dublin Character

This character exemplifies the high quality standards by which Dublin's primary roadways have been designed, built and landscaped over the past several decades to provide a very formalized and maintained roadway.

- Use of 100-foot setbacks or equivalent to blend with surrounding developments

Dublin Character incorporates high quality formal design that emphasizes landscaping.





- Planning Area
- Dublin Model Character
- Rural Character
- River Character
- Village Character



Transportation

Map 4.11 Roadway Character

VII. 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 acceptable to the City.
- B. *Utilize City Participation...* in transportation improvements when the project or development contributes to greater community-wide objectives.
- C. *Require Traffic Impact Studies...* for all developments 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.

RIGHT: Roadway design can have a substantial impact on driver perception and speed.

OPPOSITE PAGE: Visual quality and driver experience are important considerations in road design.



- D. *Utilize 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.

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. 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 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 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 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...* by identifying where road widening projects and other 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 Connection Points...* within new developments and to the surrounding area by providing links to surrounding roadways to establish greater travel options for residents.
- B. *Provide Multiple Routes...* for internal circulation streets to major activity areas within and adjacent to developments.

Roundabouts have been sensitively integrated to improve the capacity and function of intersections.



- C. *Require Internal Connections...* through cross-access easements between non-residential (e.g. office and commercial) developments to minimize traffic on arterial and collector streets.
- D. *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.
- E. *Extend Existing Street Stubs...* in conjunction with adjacent development to benefit the larger transportation system by providing better access for residents within those neighborhoods.
- F. *Cautiously Consider Modifications...* to residential collectors that serve neighborhoods and provide access to Dublin's residential areas.
- G. *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 City.

While most of Central Ohio (and particularly Dublin) is auto-oriented, reducing dependence on automobiles is desirable to extend the capacity of the City's road network. There is increasing recognition within the region that



Alternate road designs like Eiterman Road sensitively blend with surrounding development.

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. *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 City. It will be important to work with COTA and other organizations to 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 and the Central Ohio Innovation Center.
- F. *Protect Future Rail 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...* 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 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

Targeted development in Dublin's core can greatly improve opportunities for long-term transit options.

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 the Avery-Muirfield Drive interchange with U.S. 33.
- 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.

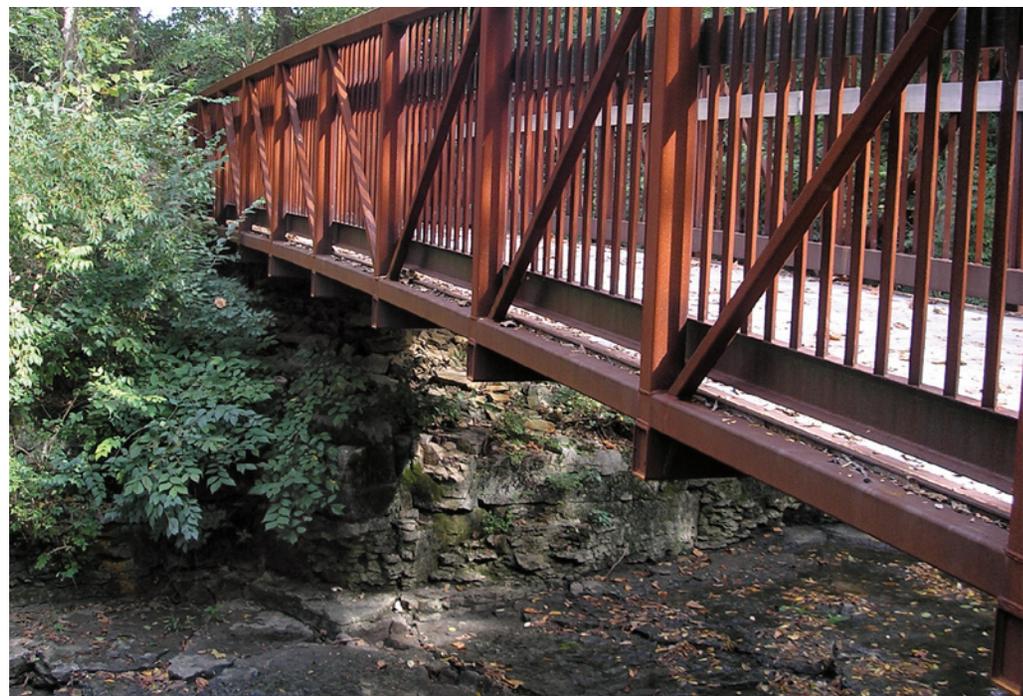
Bicycling offers a healthy travel alternative to the automobile and can function as a

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 City. 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 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 Path Connectivity...* to facilitate safe 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 Paths and Bike Lanes...* as part of right-of-way design to provide greater access to major activity and employment areas as an alternative means of commuting/travel.
- 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. *Budget for Continued Maintenance...* of the bikeway system to provide for annual upkeep and to ensure a high quality riding environment.
- I. *Consider Parking Requirements...* within the Zoning Code that could promote bicycle facilities as an incentive to reduce parking pavement, maximize greenspace and promote alternative transportation methods.
- J. *Promote Bicycle Education...* within the community to encourage increased and safer recreational and commuter bicycle usage.
- K. *Create Comprehensive Sign Programs...* for the bikeway network and conflict points to provide for the safe and efficient movement of bicycles throughout the City.

Bicycle and pedestrian connectivity should be an important component of capital planning.





Dublin has planned an extensive bikeway system that will link all areas of the City.