

CHAPTER 3: SITUATION ANALYSIS

I. Population and Development

Genoa Township experienced rapid growth in the 1990s, evolving from a primarily rural community into a suburban, bedroom community. Significant growth occurred particularly in the southern half of the Township as urbanization of Metropolitan Columbus pushed northward, past Westerville, and into Delaware County. Issuance of new residential building permits peaked around the turn of the 21st century and began to decline to more modest growth rates soon thereafter.

In 2008 and 2009, the United States experienced one of the worst, if not the worst, economic downturns since the Great Depression. This economic decline was primarily driven by crises in the financial and sub-prime mortgage markets and affected virtually every segment of the economy, particularly housing and commercial real estate. Despite the fact that the recession technically ended in 2009, it took several years for an economic recovery to take hold at a national level. While the Township did experience a slowdown in housing starts during this time (See Figure 3.1), this trend had actually begun before the recession and was somewhat expected given the amount of developable lands remaining in the Township (See Figure 3.5).

Since the recession, growth within the Township has remained modest. Development north of Big Walnut Road has occurred but is limited by the lack of sewer infrastructure. Infill development, as defined in Chapter 1, south of Big Walnut Road has also begun to occur. Despite the decline in growth rate within the Township, Delaware County overall has consistently been one of the fastest developing counties in the State of Ohio since 2010. This trend is expected to continue due to the following:

- Large amounts of developable acreage available near major transportation corridors such as; I-71, US-23, OH-315, Sawmill Parkway, and US-36/OH-37;
- The potential for two new highway interchanges on I-71;
- High demand for housing in the Westerville, Olentangy, Big Walnut School Districts;
- Improvement and expansion of Delaware County road and sewer infrastructure; and
- Proximity to major retail and employment centers such as the Polaris Parkway corridor, US-23 corridor, Sawmill Parkway corridor, and the Tanger Outlets in Sunbury.

FIGURE 3.1 – GENOA TOWNSHIP NEW RESIDENTIAL BUILDING PERMITS 2000-2016

Year	2000	2001	2002	2003	2004	2005	2006	2007	2016
Number of Permits	651	667	716	647	442	305	183	148	98 (thru October 2016)
	2008	2009	2010	2011	2012	2013	2014	2015	
	72	69	82	83	116	110	39	66	

(Source: Delaware County Regional Planning Commission: County Residential Building Permits)

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The Delaware County Regional Planning Commission (DCRPC) makes population projections based on a “Housing Unit Method” formula. In 2007, DCRPC had projected that Genoa Township would be completely built-out by 2015 with a population of 28,454. Genoa Township’s year-end 2015 population is estimated at 25,195 residents, according to DCRPC. Furthermore, complete build-out of all vacant lands within the Township has yet to occur. As such, DCRPC has since revised their projections. While the aforementioned population at build-out estimate remains the same, this population is not expected to be reached until 2030. County projections also indicate that Genoa Township may become one of the first Townships within the County to be completely built-out.

FIGURE 3.2 – SURROUNDING JURISDICTIONAL GROWTH RATE COMPARISONS 2000-2015

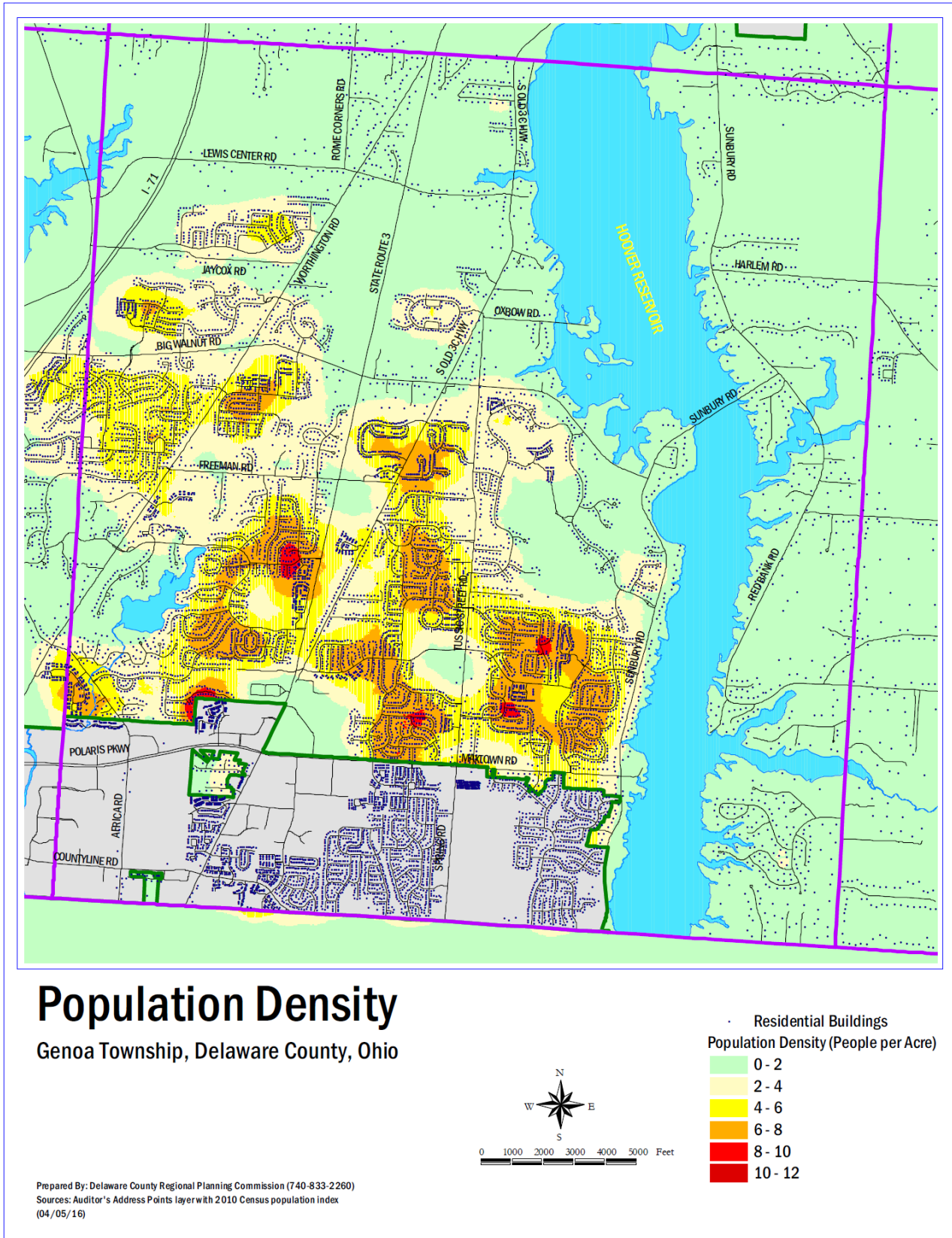
Area	2000 Population	2010 Population	2015 Population	Growth Rate 2000-2015	2016 Projection
Galena, Village	305	653	764	150%	781
Genoa Twp.	11,293	23,090	25,195	123%	25,437
Orange Twp.	12,464	23,762	27,084	117%	27,743
Berlin Twp.	3,313	6,496	7,140	116%	7,234
Delaware Co.	109,989	174,214	195,165	77%	199,302
Liberty Twp.	9,182	14,581	16,246	77%	16,525
Berkshire Twp.	1,946	2,428	2,923	50%	3,124
Harlem Twp.	3,762	3,953	4,134	10%	4,186
Westerville, City	35,318	36,120	38,384*	9%	n/a
Trenton Twp.	2,137	2,190	2,241	5%	2,254

(Sources: DCRPC Population Projection (II) to 2030 – August 2016; *US Census Bureau July 1, 2015 Estimate)

Surrounding jurisdictional growth rates (See Figure 3.2) reflect the fast growth of townships in southern Delaware County. According to this information, Genoa Township experienced the second fastest population growth rate between 2000 and 2015, despite the aforementioned decline to a more modest growth rate in new residential building permits, with Orange and Berlin Townships close behind. The 2010 Census listed Delaware County as one of the top 100 fastest growing counties in the United States of America (ranked 22nd). While the County’s national growth ranking fell to 92nd in the nation in 2015, it still retains its claim as the fastest growing County in the State of Ohio. The majority of this growth has occurred, and is expected to continue to occur, outside of Genoa Township as sewer service expands in the southwestern, northeastern, and central portions of the County along primary transportation corridors in Liberty, Orange, Berlin, and Berkshire Townships, as well as within the City of Sunbury.

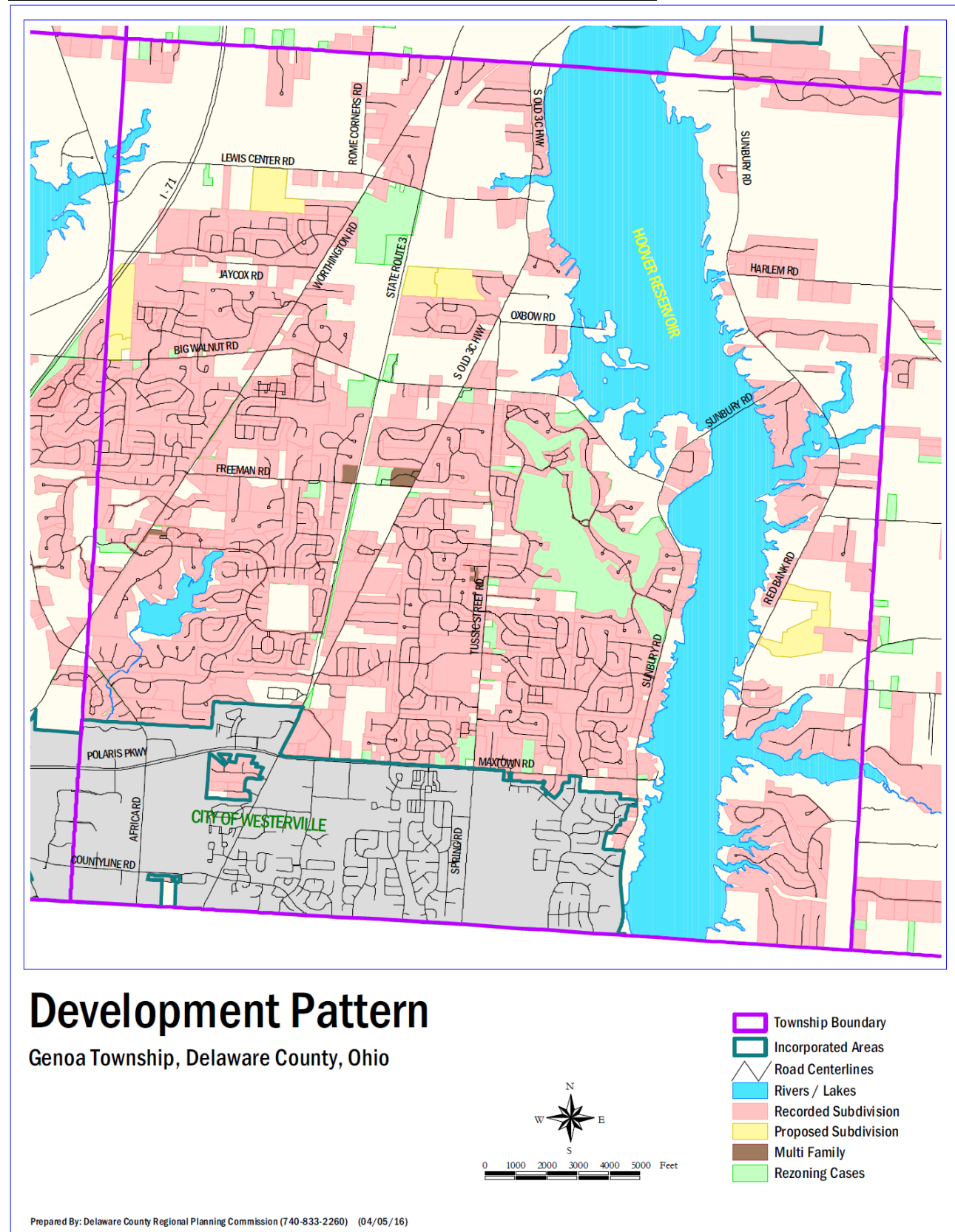
Population density is greater in the southern portion of Genoa Township as the majority of undeveloped land is currently located north of Big Walnut Road (See Figure 3.3). Genoa Township’s growth can be seen on the DCRPC Development Pattern Map (See Figure 3.4), which portrays rezoned lands that have yet to be platted or do not require platting in green, subdivisions with Final Development Plan approval from the Township in yellow, and platted, recorded subdivisions in red. The aforementioned map indicates the majority of the Township is developed. Remaining lands with the greatest potential for development have been identified on the ‘Undeveloped Parcels’ map (See Figure 3.5).

FIGURE 3.3 – POPULATION DENSITY MAP



(Source: DCRPC, October 2016)

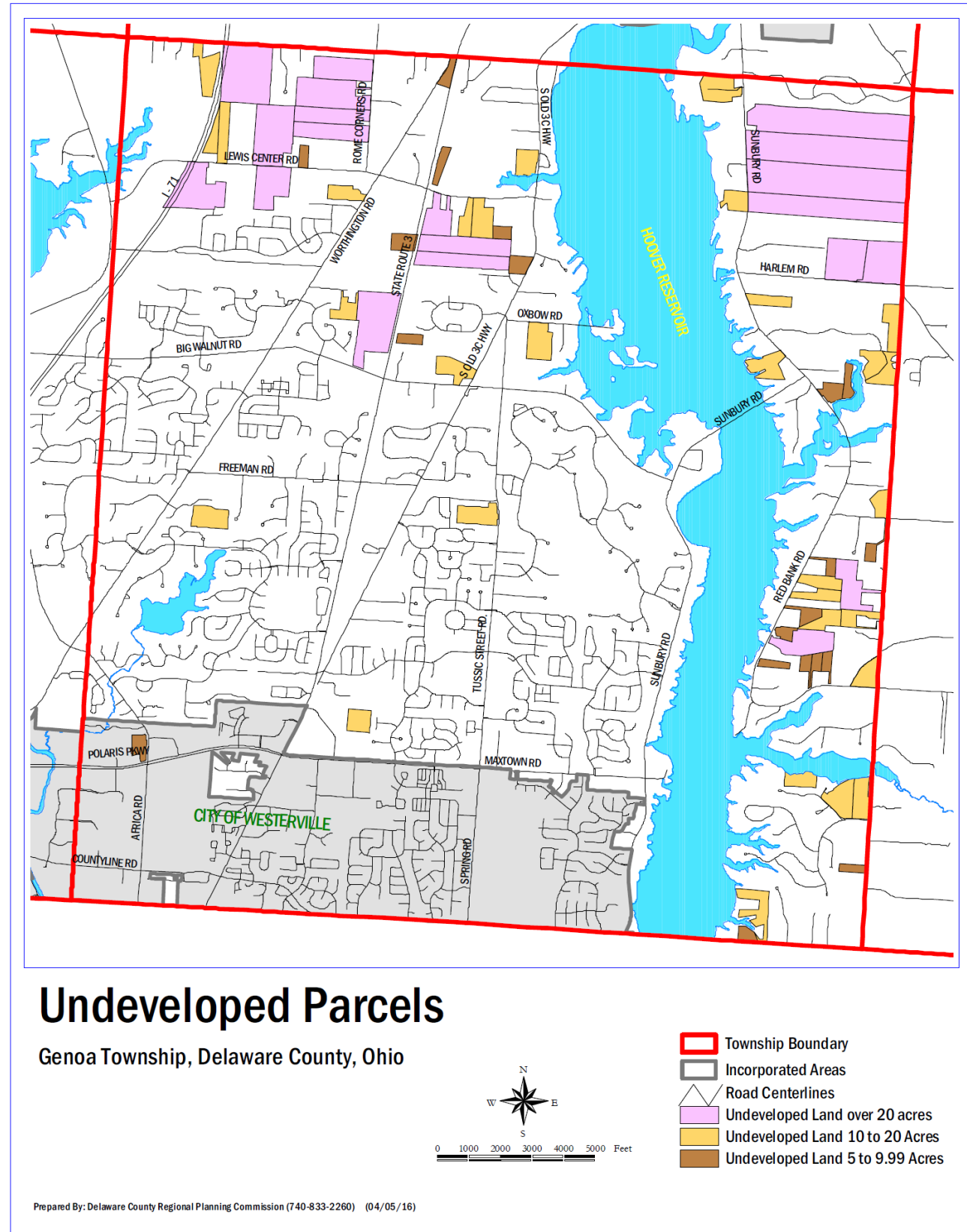
FIGURE 3.4 – DEVELOPMENT PATTERN MAP, INDICATING PROJECTS BY STATUS



(Source: DCRPC, October 2016)

NOTE: Includes applications that were approved but not yet platted. See page 30 for further details.

FIGURE 3.5 – UNDEVELOPED PARCELS



(Source: DCRPC, October 2016)

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II. Utilities

Development is largely dependent on good utility service (See Figure 3.6), most notably, public water and sewer. The following pages include a brief overview of utility service in the Township, including a look at capacity, future service areas, and restrictions on land use.

A. Water

Genoa Township's potable water and fire protection (hydrants) are supplied by Del-Co Water Company. Future growth, especially that occurring outside of the Township, has the potential to affect overall water service quality in the Township and elsewhere. In order to accommodate high peak demands and provide capacity for future growth, Del-Co has purchased a significant interest in a newly built City of Columbus reservoir located in northwestern Delaware County and is actively working on plans to expand capacity of their largest plant located off Olentangy River Road. Given that source water for the next 20 to 30 years has been secured and improvements to the existing system are actively under way, the supply and service of water to Genoa Township residents and businesses is expected to remain adequate. Water availability and service is also not anticipated to be a restraining factor in regards to future growth within the Township or the region.

B. Sewer

The 2004 Delaware County Sewer Master Plan divided Genoa Township into seven sewer service areas as seen in Figure 3.7. The majority of development within the Township has been within the Alum Creek sewer service areas, west of Hoover Reservoir. Lands on the east side of Hoover have previously been identified as candidates for sewer service as part of the County's Big Walnut service area. Sewer in this area would be conveyed to the City of Columbus for treatment per an agreement between the City and the County. At this time, no recent activity in regards to construction of sewer infrastructure in the Township on the east side of Hoover Reservoir has taken place. Presently, the closest treatment plant is located on Walker Wood Boulevard, south of the Alum Creek Dam in Orange Township.

Delaware County is currently in the process of updating its Sewer Master Plan. Early discussions have indicated that no changes in plans or service areas are expected for Genoa Township. Capacity recommendations of the updated Sewer Master Plan will be determined as part of a comprehensive planning process for Delaware County that includes density projections provided by each township. Genoa Township provided its proposed density projections to the County in August 2015 following an exhaustive review of growth trends (See Appendix B, 2015 Sewer Forecast Recommendation). Sewer has been proven to be a catalyst for increased development. As such, when sewer service is made available, it can be expected that higher growth rates will likely follow.

C. Electric

American Electric Power (AEP) provides electric service to Genoa Township and maintains two major electric transmission lines that cross Genoa Township. Electric service has not been a restraining factor in development. In November 2015, Genoa Township residents voted in favor of an opt-out utility aggregation program for electric services within the Township, allowing the Township Trustees to negotiate with an energy broker to approach suppliers and solicit a

beneficial rate or discount for Township residents and businesses who are eligible for the program.

D. Gas

Columbia Gas and Suburban Natural Gas both serve Genoa Township where natural gas service is available. Columbia Gas maintains three major natural gas transmission lines that cross through the Township. Natural gas service has not been a restraining factor in the development of the Township. In November 2015, Genoa Township residents voted in favor of an opt-out utility aggregation program for natural gas services within the Township, allowing the Township Trustees to negotiate with an energy broker to approach suppliers and solicit a beneficial rate or discount for Township residents and businesses who are eligible for the program.

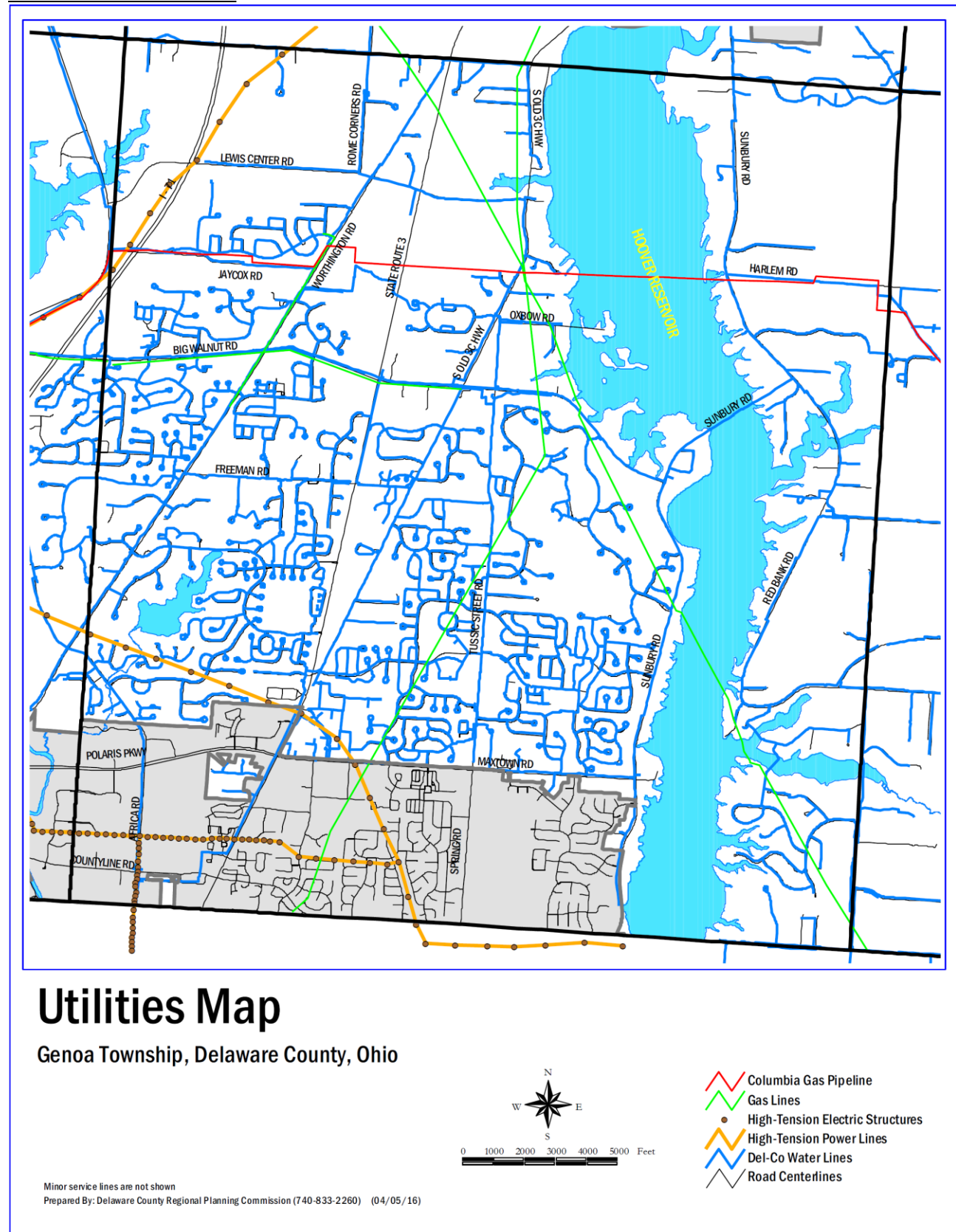
E. Technology/Connectivity

Genoa Township is located within the 614 and 740 telephone exchanges. In late January 2016, a new 380-telephone exchange overlay was added to the area covered by the 614-telephone exchange. Cellular service is available throughout Genoa Township. A few cellular towers exist today, and expansion may be necessary in the future to meet development needs, especially given the rise in popularity of wireless devices such as tablets and smart phones which can consume significant amounts of data over communication networks. Section 519.211 of the Ohio Revised Code (ORC) limits the zoning power of townships in regards to Telecommunication Towers. Cable and fiber optic networks will also play a vital role in serving the technological and communication needs of the Township in the coming years.

F. Stormwater Management

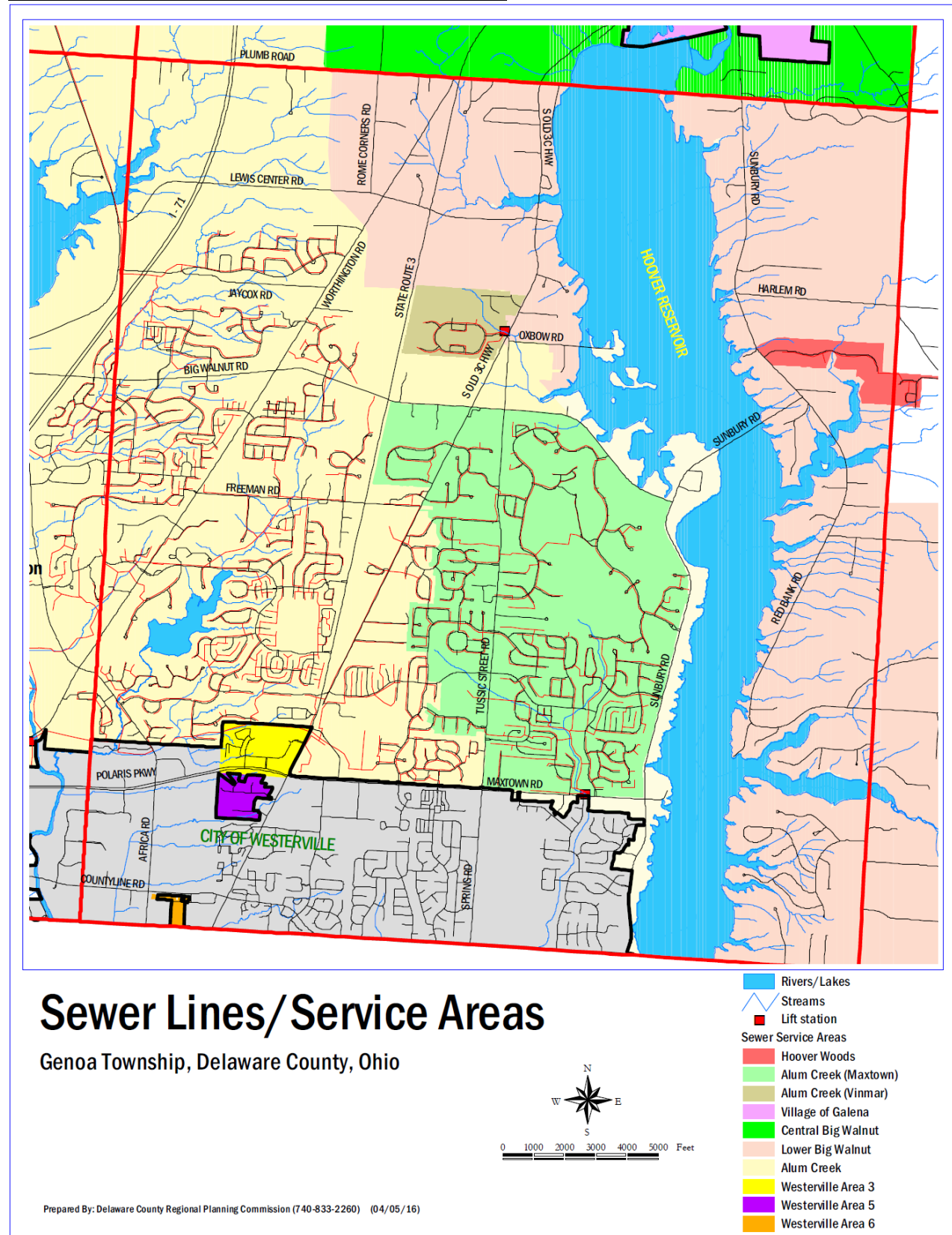
Stormwater management within Genoa Township is reviewed and controlled by the Delaware County Engineer's Office. The Delaware County Soil and Water District maintains ditches as well as stormwater detention and retention ponds by agreement with the County Engineer. This program is funded by an assessment charged to affected residents for maintenance of such aforementioned features. Stormwater management within the Township has not been a restraining factor in regards to future growth within the Township nor is it anticipated to be one in the future.

FIGURE 3.6 – UTILITIES MAP



(Source: DCRPC, November 2016)

FIGURE 3.7 – SEWER LINE MAP WITH SEWER SERVICE AREAS



(Sources: DCRPC and Delaware County Regional Sewer District, October 2016)

III. Community Facilities (See Figure 3.8)

A. **Emergency Services (Police/Fire/EMS)**

Genoa Township provides its own police, fire, and emergency medical services (EMS). Both police and fire/EMS stations are located on Big Walnut Road, adjacent to State Route 3. EMS is also provided by Delaware County via a station located on Northgate Way. Though planning for emergency services involves a need for response times and other information not directly relevant to land use, it should be considered as development proposals are reviewed. There has been an expressed need for further fire/EMS availability on the east side of Hoover Reservoir. In 2015, the Township acquired a parcel of land on the east side of Hoover Reservoir for a potential emergency services facility; however, no plans or timetable currently exists for this parcel. A facilities assessment of all of the Township's emergency service facilities is currently being considered in order to determine what, if any, repairs, improvements, and/or expansions may be needed.

Though not located within Genoa Township, Ohio Health operates a medical campus on Polaris Parkway at Africa Road that provides everyday and outpatient medical services within a relatively short distance to a majority of Township residents.

B. **Maintenance, Building & Grounds**

Genoa Township's Maintenance, Building & Grounds department is located off of Big Walnut Road between the Genoa Township police station and McNamara Park. Space for the storage of construction materials and debris at this location is limited and has resulted in the Township having to, periodically; use alternate locations for temporary storage during peak construction periods. A facilities assessment of the Township's maintenance facilities is currently being considered in order to determine what, if any, repairs, improvements, and/or expansions may be needed.

C. **Administration and Zoning Offices**

Genoa Township's Administration and Zoning Office, as well as the Township's community hall, are located at the southeast corner of Big Walnut Road and South Old 3C Highway. A facilities assessment of the Township's Administration and Zoning Office is currently being considered in order to determine what, if any, repairs, improvements, and/or expansions may be needed.

D. **Cemeteries**

Genoa Township owns and maintains four, historic cemeteries:

- 1) Burnside Cemetery, located at the southeast corner of South Old 3C Highway and Lewis Center Road;
- 2) Copeland Cemetery, located on the southern side of Yankee Street, west of Sunbury Road;
- 3) Red Bank Cemetery, located on the southern side of Red Bank Road, east of Lake of the Woods Point; and
- 4) Tussic Street Cemetery, located on the western side of Tussic Street Road, immediately north of the Courtyards on Tussic development.

The Genoa Township Maintenance, Building & Grounds Department operates and maintains each cemetery including all appropriate records. As of the writing of this plan, only one plot remains available for purchase in the entire Township. Additional cemetery space may need to be considered in the near future, though providing additional space is not legally required.

Northlawn Memory Gardens, a privately-owned cemetery covering approximately 30 acres, is located on the western side of State Route 3, just south of Chandler Court. The cemetery contains several acres which have not yet been utilized and, as such, provides residents an alternative option should they wish to be buried within the Township.

E. Schools

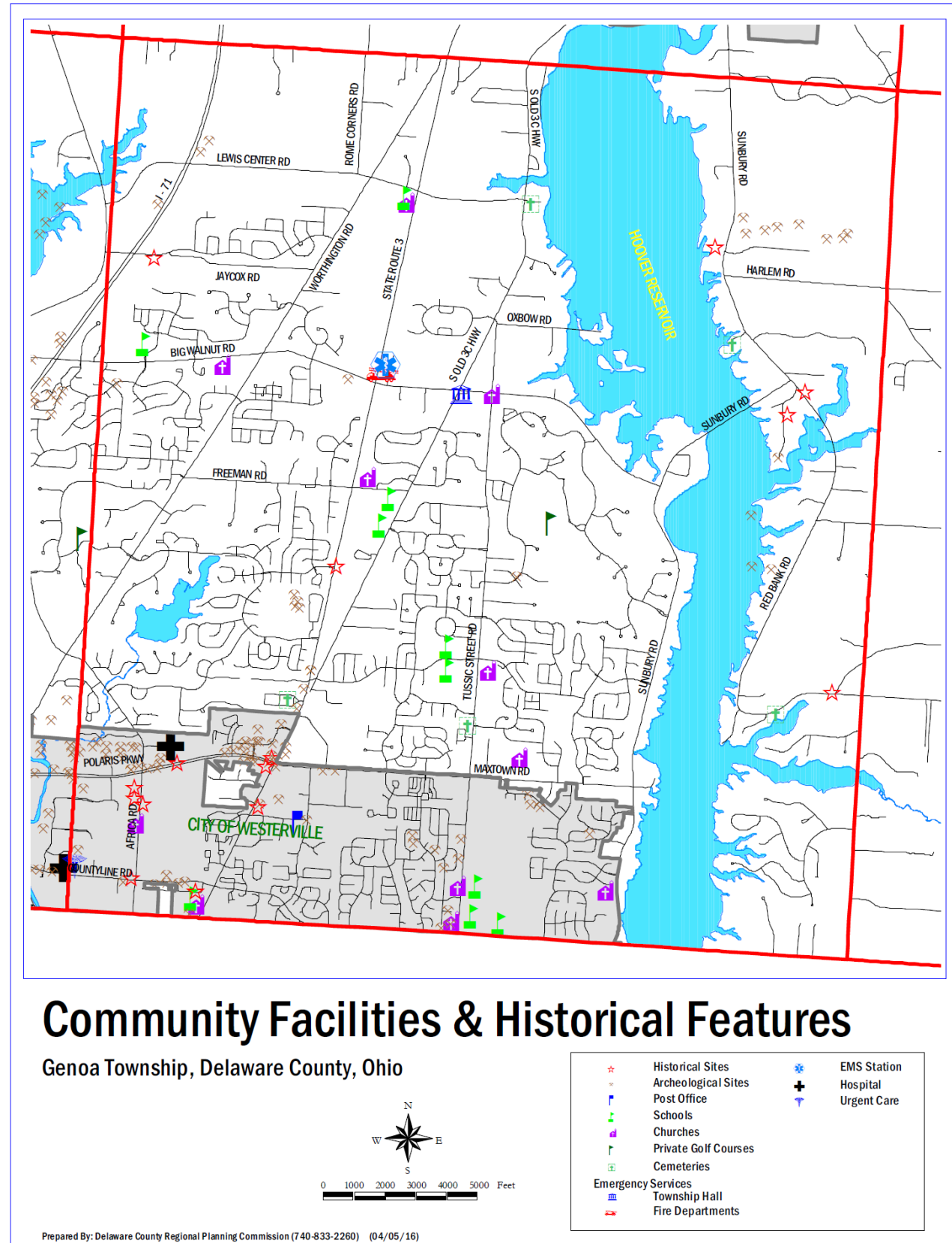
Genoa Township is serviced by three school districts; Westerville City School District in the southern portion of the Township, Olentangy Local School District in the northwestern portion of the Township, and Big Walnut Local School District in the northeastern portion of the Township.

- Westerville City School District has four schools located within the Township. Westerville Central High School and Alcott Elementary are located adjacent to one another along Mount Royal Avenue, immediately west of Tussic Street Road. Genoa Middle School and Fouse Elementary School are located adjacent to one another immediately south and west of Freeman Road and South Old 3C Highway.
- Olentangy Local School District operates one school within the Township, Walnut Creek Elementary located on the northern side of Big Walnut Road near the Township's border with Orange Township.
- Big Walnut Local School District does not have any schools located within the Township.

While both Olentangy and Big Walnut Local School Districts have grown in size, and continue to do so, at the time of this plan, neither school district was currently planning on building any additional schools within Genoa Township. Olentangy Local School District is currently constructing a fourth high school in Berlin Township, west of Alum Creek Reservoir. Construction of this new school is expected to have little to no direct impact on Genoa Township.

Columbus State Community College operates a regional learning center on Northgate Way. This campus has limited course offerings.

FIGURE 3.8 – COMMUNITY FACILITIES & HISTORICAL FEATURES



IV. Existing Land Use

With an understanding of the Township's development history and its current utility service, an existing land use survey provides a snapshot of what Genoa Township looks like today. Genoa Township's existing land uses can be displayed by type according to the County Auditor's Geographic Information System's tax code. Figures 3.9 and 3.10 give a depiction of the composition of Genoa Township in November 2016. Figure 3.11 compares land use within the Township to adjacent communities within the region. The County Auditor's land use classifications do not reflect the approved zoning of parcels within the Township. Current zoning of parcels in the Township is reflected in Figure 3.12 and is compared to the existing zoning of adjacent communities in Figure 3.13.

FIGURE 3.9 – GENOA TOWNSHIP EXISTING LAND USE TABLE

TYPE	ACREAGE (APPROX.)	PERCENTAGE
Single Family	5,544	40.4%
Rivers / Lakes/Ponds	2,536	18.5%
Golf Courses / Parks/Open Space	2,081	15.1%
Road Right-of-Way	1,094	8.0%
Residential Vacant Land	1,030	7.5%
Agricultural	661	4.8%
Multi Family	309	2.2%
Institution	243	1.8%
Commercial	149	1.1%
Industrial	49	0.4%
Commercial Vacant Land	26	0.2%
TOTAL	13,722	100%*

(Source: Delaware County Regional Planning Commission, November 2016)

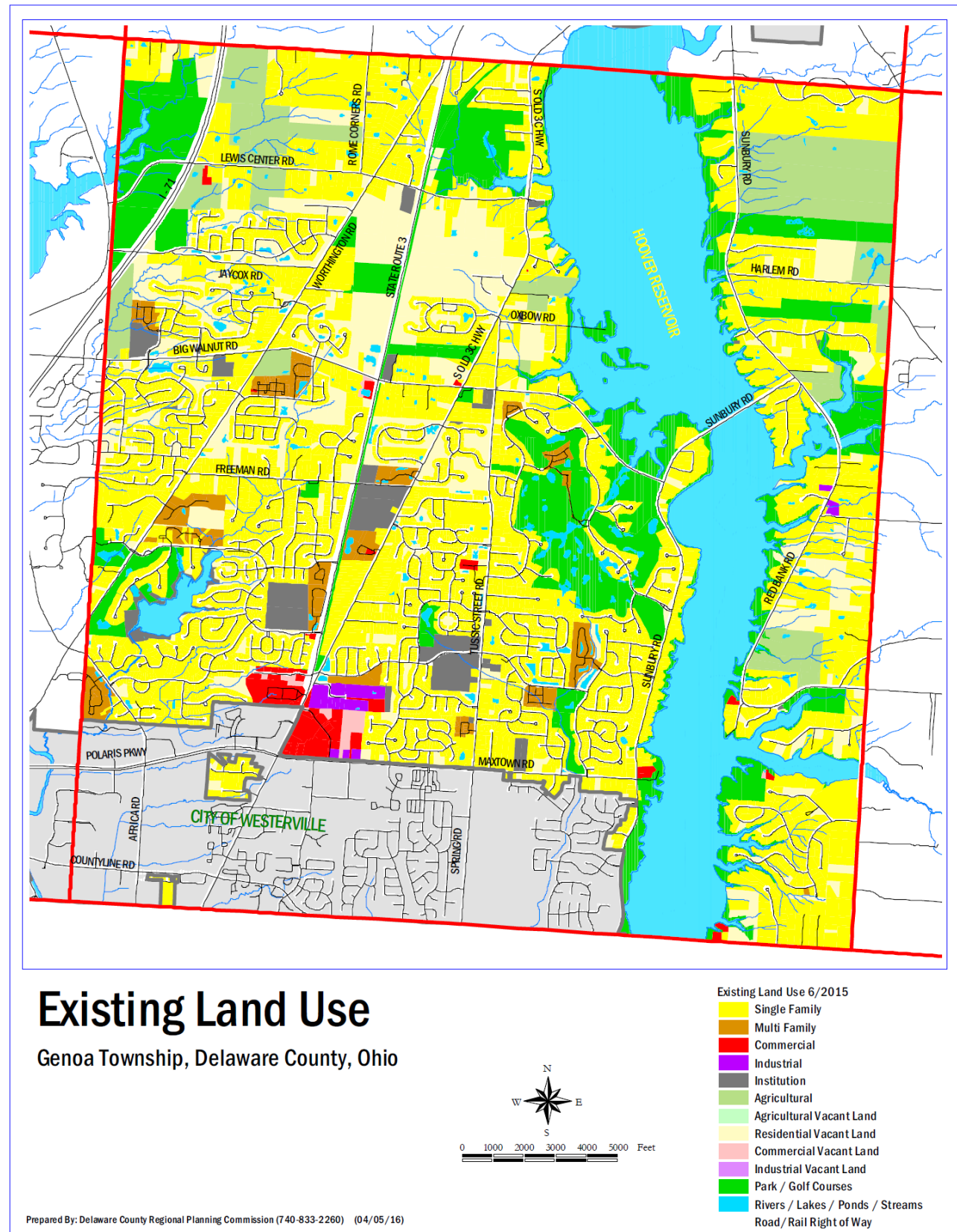
*Percentages have been rounded and do not add up to exactly 100%

Notes on Genoa Township's Existing Land Uses in 2016:

- Single Family housing is the largest single land use.
- Commercial and Industrial acreage together total only 1.5% of existing land uses (1.1% Commercial and 0.4% Industrial).
- 12.5% of the Township is undeveloped (4.8% Agriculture, 7.5% Residential Vacant Land, and 0.2% Commercial Vacant Land).
- Road right-of-ways typically represent 15% of fully built out communities.
- 33.6% of the Township is currently preserved in the form of waterways (18.5% Rivers/Lakes/Ponds) and various types of recreational green spaces (15.1% Golf Courses/Parks/Open Space).
- Multi Family includes single-family attached condominiums, single-family detached condominiums, and any other residential dwellings that are not placed on a platted or described fee-simple parcel that can be separately owned or transferred.
- Agricultural Vacant Land, as illustrated in Figures 3.10 and 3.11, includes land that was agricultural at one time but has been determined by the County Auditor's office to be inactive and no longer eligible for Current Agricultural Use Value (CAUV) property valuation.

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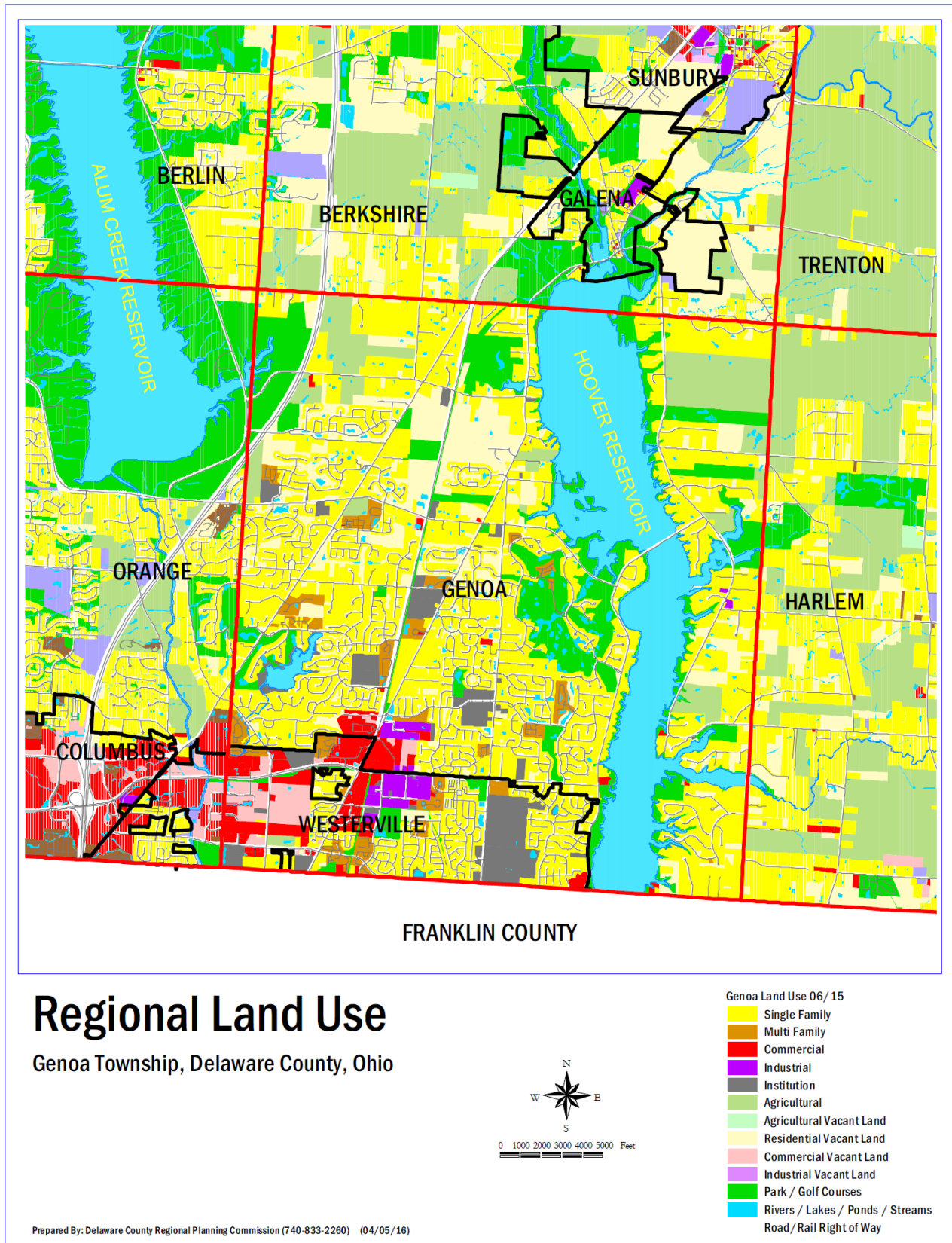
FIGURE 3.10 - EXISTING LAND USE MAP



(Source: DCRPC, October 2016 via Delaware County Auditor tax records)

NOTE: Data illustrated does not necessarily represent permitted land uses or approved zoning.

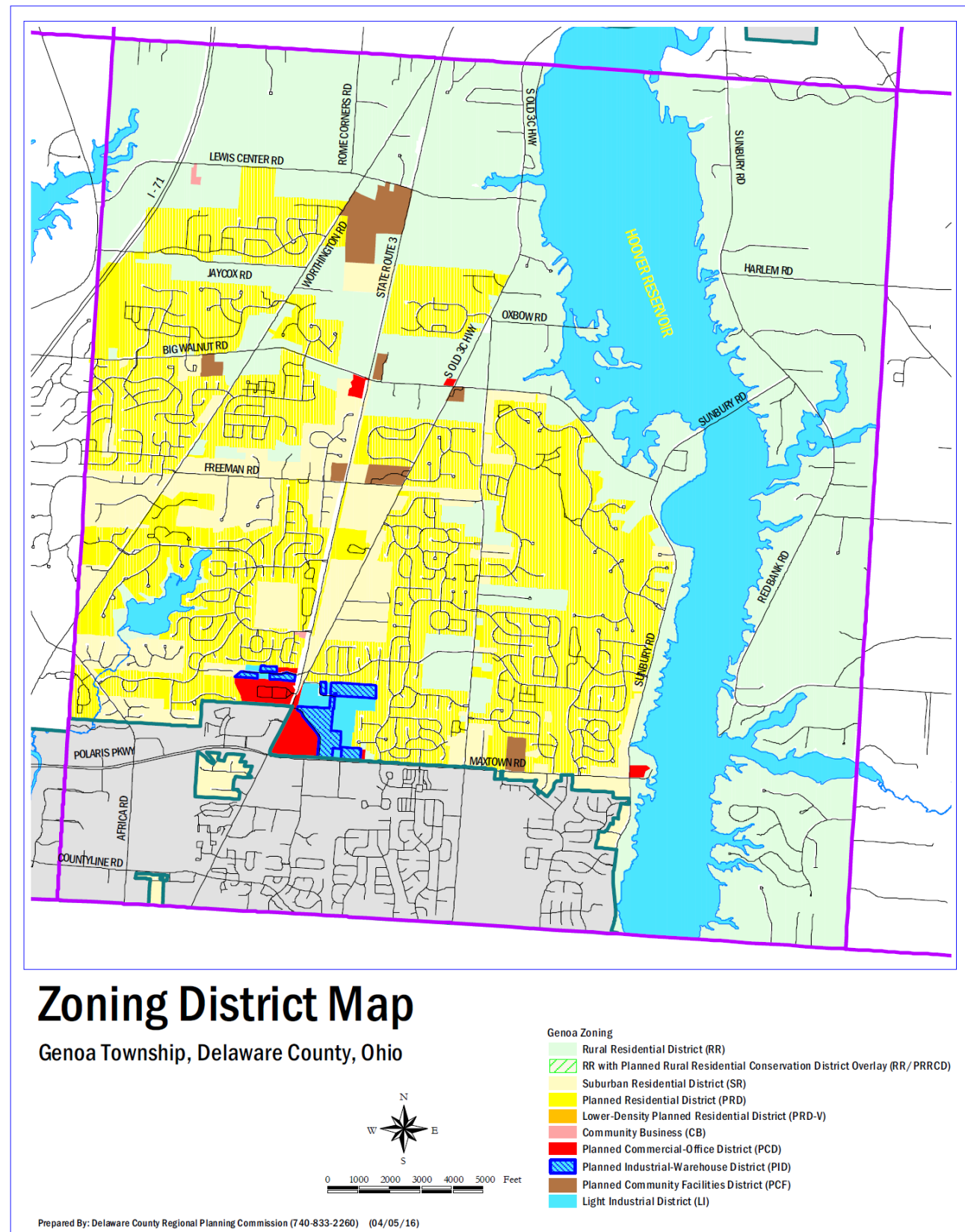
FIGURE 3.11 – REGIONAL LAND USE MAP



(Source: DCRPC, October 2016 via Delaware County Auditor tax records)

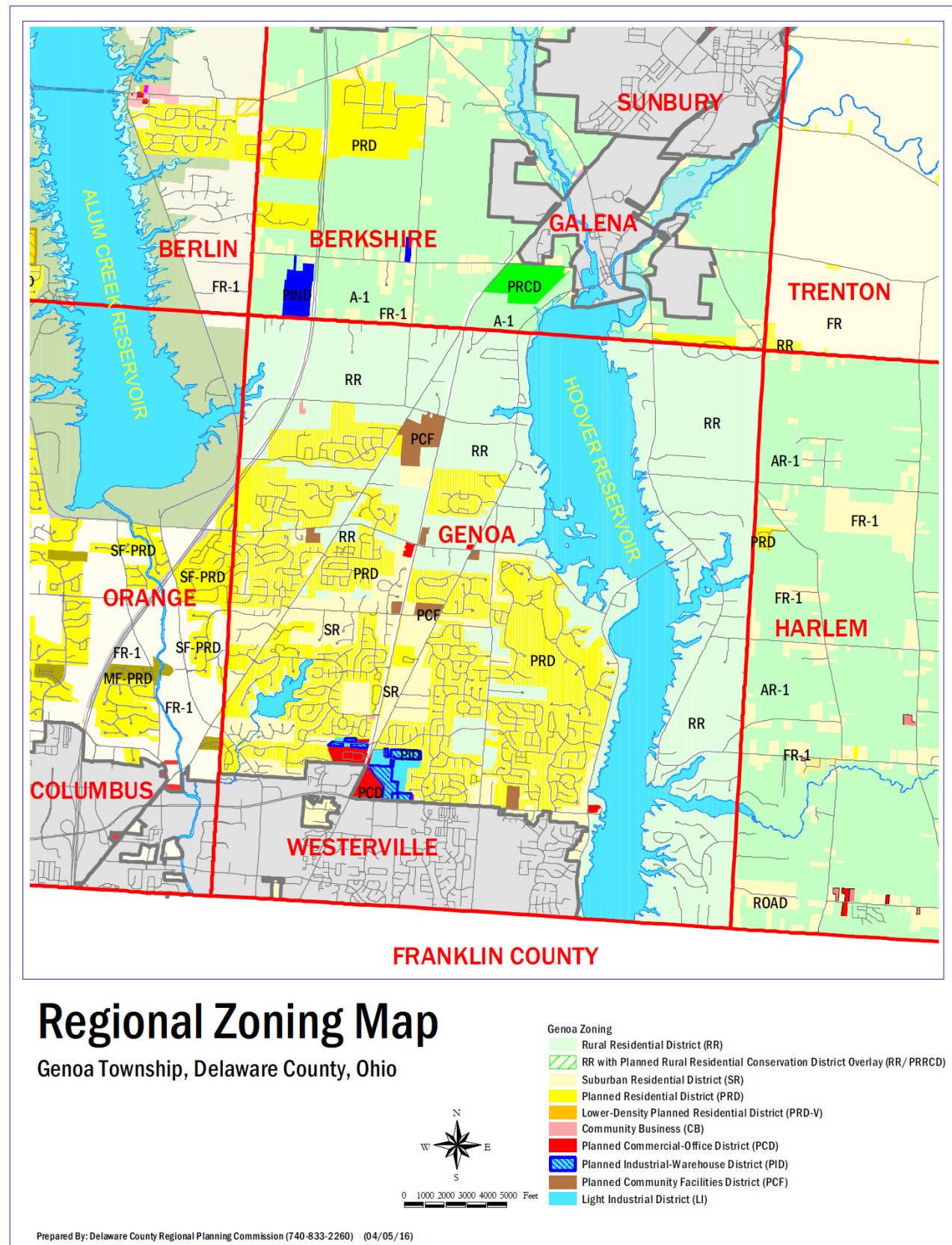
NOTE: Data illustrated does not necessarily represent permitted land uses or approved zoning.

FIGURE 3.12 – ZONING DISTRICT MAP



(Source: DCRPC, October 2016)

FIGURE 3.13 – REGIONAL ZONING MAP



(Source: DCRPC, October 2016)

V. Natural Resources Conservation

As development occurs, it is imperative to understand and conserve the function and beauty of Genoa Township's existing natural resources. Figure 3.14 depicts critical resources that have been identified in Genoa Township. The following text provides an overview of their current status and how these resources should be preserved and maintained.

A. Topography

Genoa Township has many ravines that provide for natural drainage and wildlife corridors. Most development occurs on flatter lands, so slopes above twenty-percent are reasonable to consider for preservation. Slopes over twenty-percent (See Figure 3.12) are typically found along creeks and rivers, so their preservation is important to ensure clean surface water, retain the natural landscape, prevent erosion and sedimentation, and retain rural character.

B. Floodplains

Genoa Township has floodplains along Hoover and Alum Creek Reservoirs as well as their tributary streams. Floodplains provide critical functions, such as flood storage and conveyance and reduction of flood velocities, peak flows, and sedimentation. Floodplains also moderate stream temperature fluctuations, provide groundwater recharge, and provide breeding and feeding grounds for fish and wildlife. Floodplains are (partially) protected by the National Flood Insurance Program (NFIP). A 100-year floodplain, also referred to as the one percent annual chance base floodplain, is defined as an area that has a one in one-hundred chance of being equaled or exceeded in any one year and has an average recurrence interval of 100 years. In order to maintain eligibility for low cost flood insurance, floodways cannot be filled or blocked, and 100-year floodplains shall be protected from inappropriate filling, damming, or obstruction.

C. Wetlands

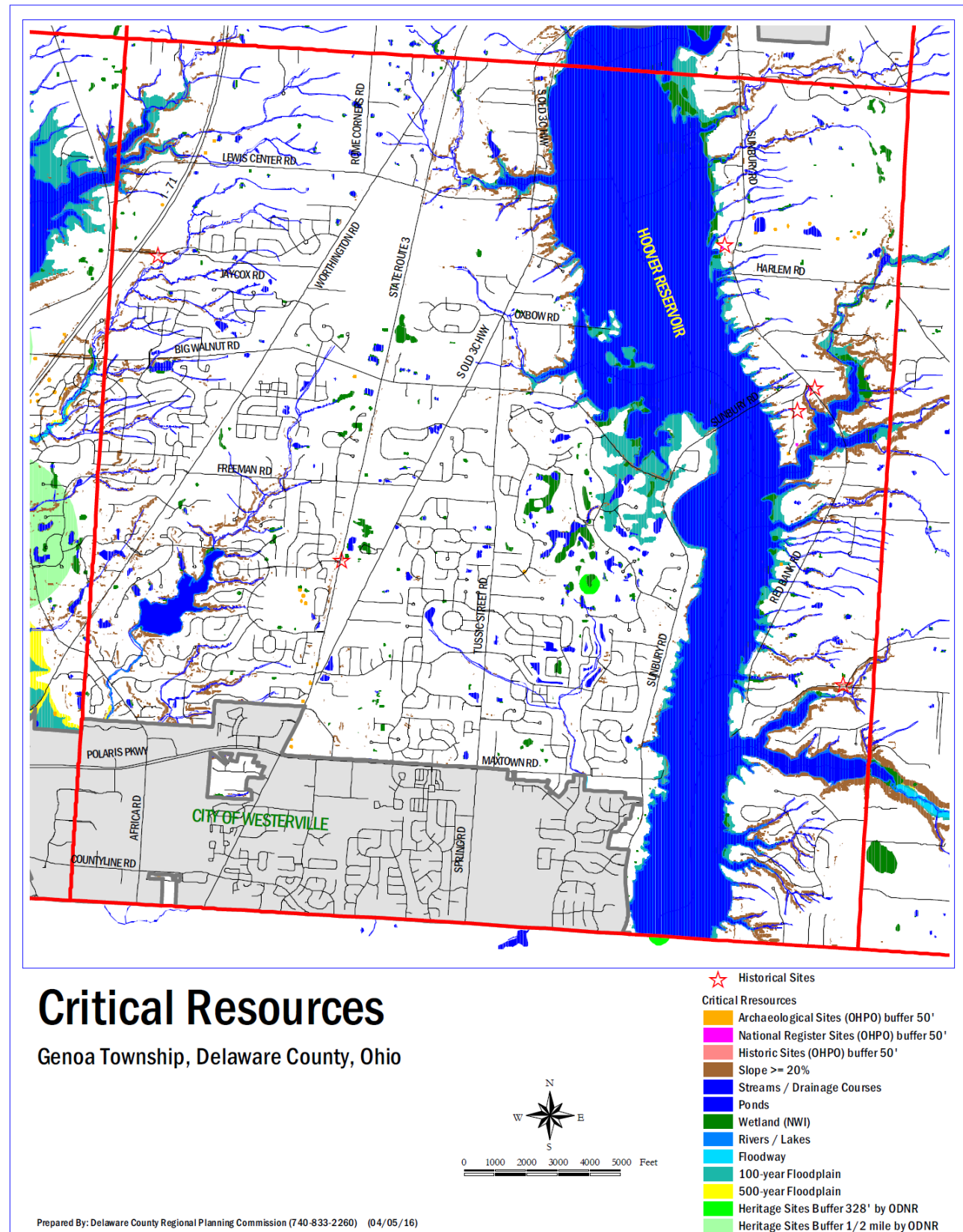
Genoa Township contains numerous pockets of wetland soils, some of which may be jurisdictional wetlands regulated by the Clean Water Act of 1972. Wetlands serve many of the same functions as floodplains and may provide vital habitats for numerous types of plants and wildlife. Wetlands also often function as natural storm water detention systems by trapping, filtering, and breaking down surface runoff. Some former wetlands are now agriculturally drained (tiled) fields or low-lying areas by, or adjacent to, existing ponds and waterways. It is not uncommon to find wetlands in wooded lands or along old fence lines. If a location is suspected to be a wetland, a developer must contact an environmental engineer and request further study. Identifying such lands can help preserve their natural character and function, while discouraging developmental impacts.

The Critical Resource Map (See Figure 3.14) indicates general locations of potential jurisdictional wetlands. Areas may be larger or smaller than identified on the map, so it shall be used only as a general guide to where wetlands have been previously identified. Wetlands are a community asset and shall be considered the same when being developed. Careful consideration shall be given to making sure that they are not degraded or destroyed; however, if mitigation is proposed and permitted, the Township strongly prefers that compensatory, mitigated wetland(s) be located within the Township, if possible.

D. Soils

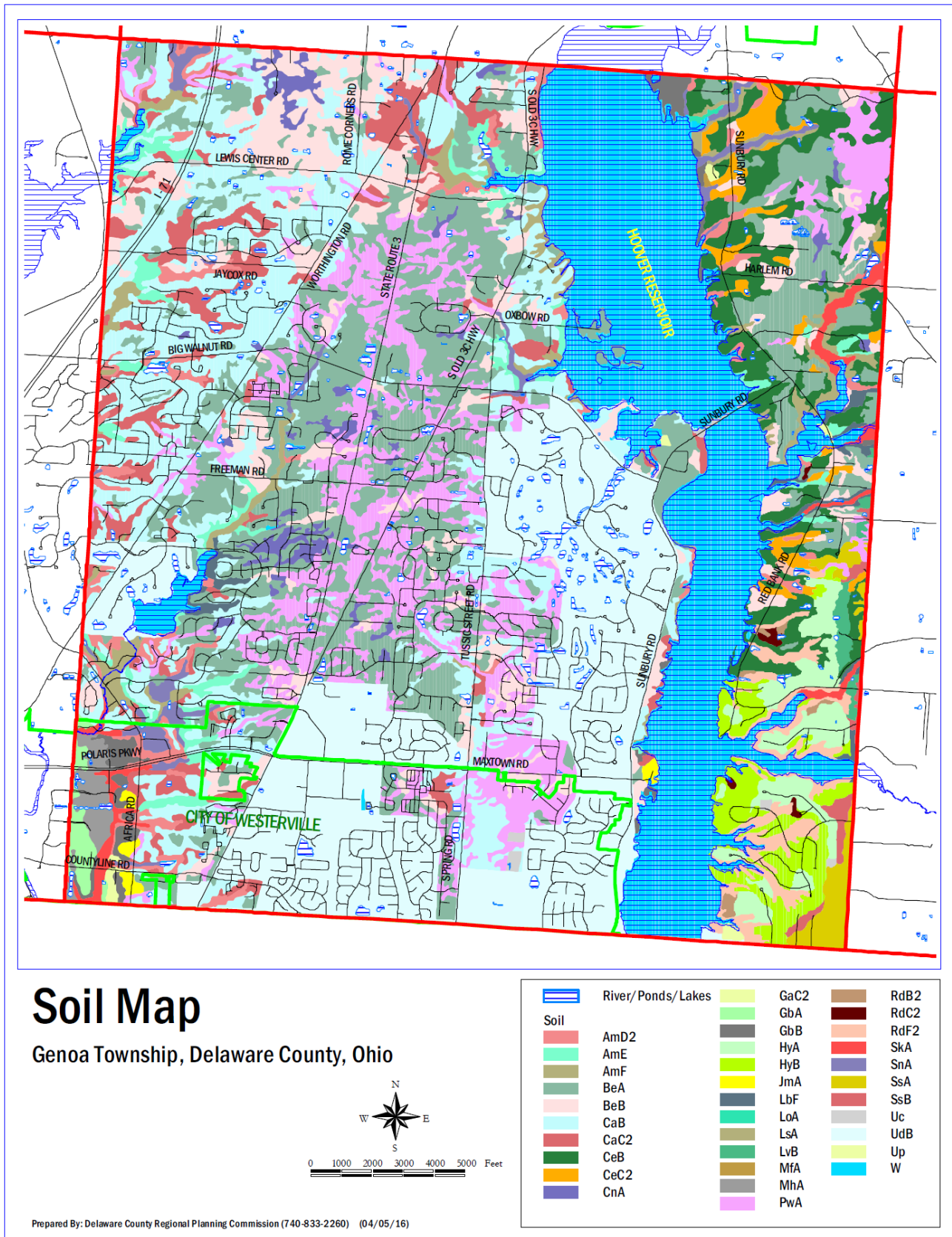
There are three primary soil types in Genoa Township (See Figure 3.15): Bennington (BeA, BeB), Pewamo (PwA), and Cardington (CaB, CaC2). These soils make up approximately 68 percent of the Township's total land area, are rated as having limitations for septic absorption, and are classified as wet with slow permeability, having shallow depths to bedrock and steep slopes. On-site septic systems are dependent upon proper soil types. Development on such soils can occur, despite these limitations, with provision of centralized sewer and water, or by the subdivision of land into large lots.

FIGURE 3.14 – CRITICAL RESOURCES MAP



(Source: DCRPC, October 2016)

FIGURE 3.15 - SOILS MAP



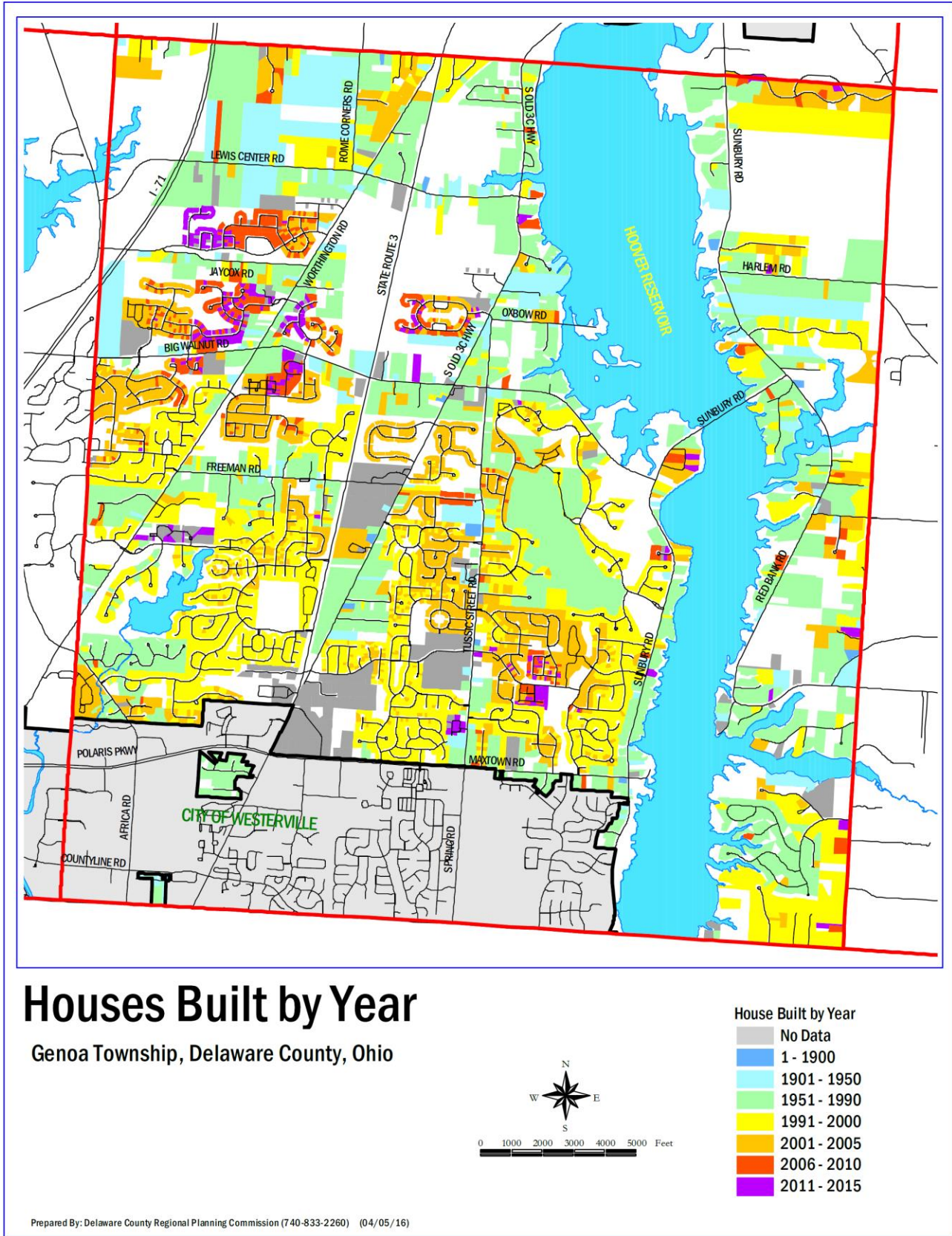
(Source: DCRPC, October 2016)

VI. Housing

Residential neighborhoods in Genoa Township primarily consist of planned developments. Some neighborhoods contain “conservation” subdivisions and/or low density multi-family housing (as previously defined on page 41). Non-planned properties continue to house a substantial population as well. According to the 2010-2014 American Community Survey 5-Year Estimate conducted by the United States Census Bureau, released in April 12, 2016, Genoa Township’s housing vacancy rate was approximately 3.0 percent, indicating a tight housing supply for the current demand.

Figure 3.16 illustrates the various ages of the Township’s housing stock and provides a visualization of how the Township has developed over time. From 1951 to 1990, residential development was scattered throughout the Township and primarily consisted of large lot rural subdivisions. Despite the large amount of land seemingly developed during this period, most of the Township’s current housing stock was built after 1990 on smaller lots in planned neighborhoods. From 1990 to 2005, residential development was primarily concentrated in the southern and eastern portions of the Township. Since 2005; however, a majority of large planned residential developments in the Township have occurred north of Big Walnut Road while development south of Big Walnut Road has mostly been of the infill variety.

FIGURE 3.16 - HOUSES BUILT BY YEAR MAP



(Source: DCRPC, November 2016)

VII. Parks, Open Space, and Recreation

Past development approvals have emphasized the creation and preservation of open space within the Township. The Genoa Township Parks Advisory Committee was formed in 2006 to provide a community vision to the Trustees for continued development of the Township's parks and recreation areas and to implement the Parks and Open Space Master Plan adopted on December 2, 2010. The 2010 plan was a concerted effort by citizens, business owners, and Township employees to improve the quality of life for residents with a focus on park and open space accessibility, community outreach, environmental sustainability, events and programming, funding and partnerships, preservation of natural resource areas, improving passive recreational opportunities, and developing and enhancing a system of trails throughout the community. Genoa Township owns numerous parks and open space areas, totaling approximately 194.3 acres, and an extensive network of sidewalks and trails totaling 107.9 miles in length (See Figure 3.17):

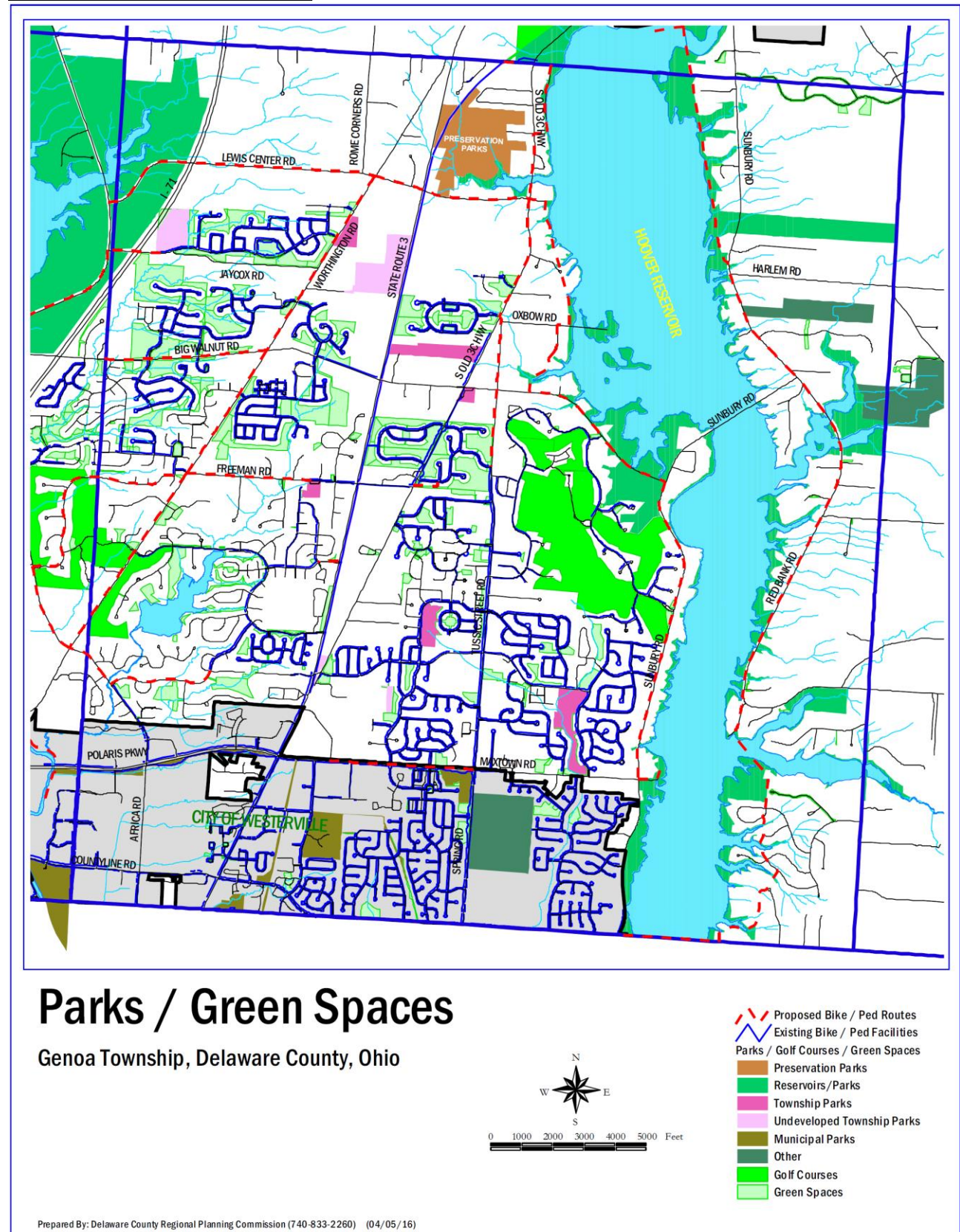
- Alberta Park (3.8 acres)
- Center Green Park (29.2 acres)
- Freeman Road Park (6.3 acres)
- Grand Oak Park (11.5 acres)
- Hilmar Park (15.3 acres)
- McNamara Park (29.8 acres)
- Mount Royal Park (1.0 acres)
- Jaycox Park (26.1 acres)
- Township Hall Park (5.3 acres)
- Worthington Road/Fleur Park & Community Gardens (62 acres)
- Trails (19.7 miles, including the 4-mile-long Genoa Trail)
- Sidewalks (88.2 miles)

Genoa Township residents also have access to other parks, open space, and recreation areas not owned by Genoa Township including; Char-Mar Ridge Preserve, Alum Creek State Park, Millstone Creek Park in Westerville, and Hoover Reservoir Park which includes; Hoover Nature Preserve, Hoover Meadows, Mud Hen Marsh, Red Bank Marina, and several boat ramps. Spruce Run Nature Study Center, on Sunbury Road, is owned and utilized by Columbus City Schools for field trips and environmental studies. It contains classroom and observation buildings, a greenhouse, a picnic area, and a trail system providing access to meadows, woodlands, and Spruce Run.

Genoa Township has prioritized making critical pathway connections between developments and its community parks. Most paths are tied into sidewalks when possible and provide an off-street transportation alternative to most lands south of Big Walnut Road and west of the reservoir. Few paths exist along major collector roads like Big Walnut Road, Worthington Road, South Old 3C Highway, and others that would help complete the network of paths; however, the Township has been aggressive in constructing paths over the past several years to remedy this situation. The Genoa Township Land Trust Conservation Association (GTLCA) is a nonprofit volunteer entity that works with homeowners/condominium associations, landowners, and concerned residents to preserve and protect open spaces and natural and scenic resources found in Genoa Township. The GTLCA currently holds lands in Covington Meadows, Grand Oak, and Willow Bend.

There are two private golf course communities in Genoa Township, Medallion Estates and The Lakes Golf and Country Club. Both courses offer private club amenities that are available to residents with participating membership fees. Some homeowners' associations also offer club-like facilities to their residents.

FIGURE 3.17 – PARKS/GREEN SPACES



VIII. Roads and Highways

Federal and State roads are maintained by the Ohio Department of Transportation (ODOT), District 6. Approximately 4.4 miles of State Route 3 passes through Genoa Township. A 2013 traffic count obtained from Mid-Ohio Regional Planning Commission (MORPC) counted 28,900 vehicles per day on State Route 3 at its intersection with Maxtown Road. Approximately one mile of Interstate 71 (I-71) is located within Genoa Township, but there is currently no direct access or exits point to or from the highway within the Township. The closest access/exit points are located a little over one mile to the west at Gemini Place and Polaris Parkway.

According to ODOT, Genoa Township contains approximately 89 miles of roadway spanning over 340 roads, ten of which are classified by the County as either Major or Minor Arterials and seven of which are classified as Major or Minor Collector Roads (See Figure 3.18). Figure 3.19 illustrates the owners of each road within the Township.

Delaware County adopted its first County-wide Thoroughfare Plan in 2001. In so doing, the County Commissioners functionally classified every road in the County and created a list of proposed road improvements to be implemented over the next several years. The plan also included various statistics regarding Genoa Township roadways including traffic counts. Traffic counts in the Thoroughfare Plan projected significant traffic increases on Genoa Township roads from 2000 to 2010, especially on those roads classified as arterials or major collectors. Significant increases in traffic are further anticipated on roads within the Township as growth continues within and outside of the Township's borders. In order to offset road improvement costs incurred by the Township when upgrading roads, developers of new plans are typically required to pay their fair share towards improvements of roads adjacent to their developments.

A. Level of Service (LOS)

Per Delaware County Engineering, the quality of road service on a specific road is evaluated by a standard engineering measure known as Level of Service (LOS). Roads are graded on an academic scale from level A (excellent flow) to F (failure, serious delays and congestion) by analyzing numerous performance measures. Level of Service C is considered acceptable. The ability of a specific road to handle a specific number of trips per day is rated by its LOS. As land development increases traffic, its LOS decreases. Population density also has a direct relationship to traffic. When densities remain less than one dwelling unit per acre, two-lane arterial roads with 40-feet of pavement (two 12-foot lanes and two 8-foot paved shoulders) can typically handle traffic at LOS C or better. When average densities reach three dwelling units per acre, four-lane arterial roads are typically needed to maintain LOS C. LOS classifications may not be available for all township roads; however, they can be determined by an independent traffic study. Such studies can be required as part of the rezoning process.

B. Functional Classifications (See Figure 3.18)

- **Arterial roads** have the primary purpose of carrying through traffic to and from residential, commercial, and industrial areas and the secondary purpose of providing access to abutting property. They are usually a continuous route carrying heavy loads and Average Daily Traffic (ADT) in excess of 3,500 vehicles. Major Arterial roads currently in Genoa Township are State Route 3 and Big Walnut Road. Minor Arterial roads in Genoa Township are: Africa Road,

Center Village Road, Harlem Road, Maxtown Road (Polaris Parkway), Rome Corners Road, Smothers Road, Sunbury Road, and Worthington Road.

- **Collector roads** have the primary purpose of intercepting traffic from intersecting local streets and handling this movement to the nearest major collector or Arterial Street. Typical ADT counts range from 1,500 to 3,500 vehicles. Major Collector roads currently in Genoa Township are: Lewis Center Road, Red Bank Road, South Old 3C Highway, and Tussic Street Road. Minor Collector roads currently in Genoa Township are: Freeman Road, Highland Lakes Avenue, Mount Royal Avenue, and Plumb Road.
- **Local Streets** represent the lowest road classification category. Their primary function is to serve abutting land use. Typical ADTs range from 100 to 1,500 vehicles. Local streets are further classified as Loop, Through, and Cul-de-sac. All streets other than Arterials and Collectors are considered Local Streets.

C. Road Improvements

Traffic improvement projects completed since 2009 include:

- Rehabilitation of the Red Bank Road bridge over the Hoover Reservoir (2009);
- Replacement of the Oxbow Road bridge (2011);
- Installation of a traffic signal at State Route 3 and Freeman Road (2011);
- Replacement of the Plumb Road bridge (2012);
- Crosswalk improvements in the vicinity of Walnut Creek Elementary (2014);
- Maxtown Road widening and re-paving (2015);
- Reconfiguring the geometry of the Worthington Road/Plumb Road intersection (2016);
- Installation of a traffic signal at State Route 3 and Plumb Road (2016);
- Resurfacing of State Route 3 from the City of Westerville to US-36/OH-37 (2016);
- Lowering the elevation of Big Walnut Road between Willow Bend Lane and Whispering Trail and adding a left turn lane (2016);
- Re-routing and widening Worthington Road between Powell and Africa Roads (2016); and
- South Old 3C Highway pavement widening, resurfacing, and sign upgrades from Olivero Drive to the Village of Galena (2016).

Delaware County and/or the Ohio Department of Transportation (ODOT) currently have plans for numerous road improvements that would affect Genoa Township. All projects and dates should be considered tentative and subject to change:

- Potential interchange on I-71 at Big Walnut Road in Orange Township and widening of Big Walnut Road (County feasibility study results are expected by the end of 2016);
- Widening of South Old 3C Highway from Mount Royal Avenue to Freeman Road, including a teardrop configuration at the Mount Royal/South Old 3C Highway intersection and a new traffic signal at the Hawksbeard Drive/South Old 3C Highway intersection (2017);
- Signal, intersection, and road improvements at the intersection of Big Walnut Road and Worthington Road (2017);

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- Widening, turn lane additions, and installation of a multi-use trail along, Sunbury Road, between County Line Road/Smothers Road and Maxtown Road (2017);
- Installation of a traffic signal at Worthington Road and Highland Lakes Avenue (2017);
- South Old 3C Highway resurfacing and improvements from Freeman Road to Tussic Street Road (2017+);
- Extension of Sunbury Road to Harlem Road, west of Woodtown (2017+);
- Cleveland Avenue-to-Worthington Road connector (2017+);
- Traffic signal addition and minor realignment of at the Worthington Road/Freeman Road intersection (2019);
- Widening and improving Harlem Road in the vicinity of the Woodtown Road intersection and replacement of the Woodtown Road bridge east of Harlem Road (2019);
- Worthington Road/Africa Road intersection improvements along with Worthington Road widening and sight distance improvements from Africa Road to Highland Lakes Avenue (2020);
- Aligning the offset intersection at Rome Corners Road and Plumb Road (2020+);
- Minor widening of Sunbury Road from Maxtown Road to Big Walnut Road (2021+);
- Worthington Road/Lewis Center Road intersection improvements (2021+);
- Improvements to the Big Walnut Road/South Old 3C Highway intersection (2021+); and
- Widening of Africa Road from Polaris Parkway in the City of Westerville, thru Genoa Township, to Sanctuary Drive in Orange Township (2023+).

In Fall 2016, the Township completed the construction of additional trail and sidewalk along Maxtown Road to Sunbury Road to connect to the aforementioned Sunbury Road multi-use trail project. Meanwhile, commercial development at the US-36/OH-37/I-71 interchange, along Polaris Parkway between Columbus and Westerville, and along the extension of Gemini Parkway between Orion Place and Worthington Road, is expected to result in even heavier traffic volumes on roadways within the Township.

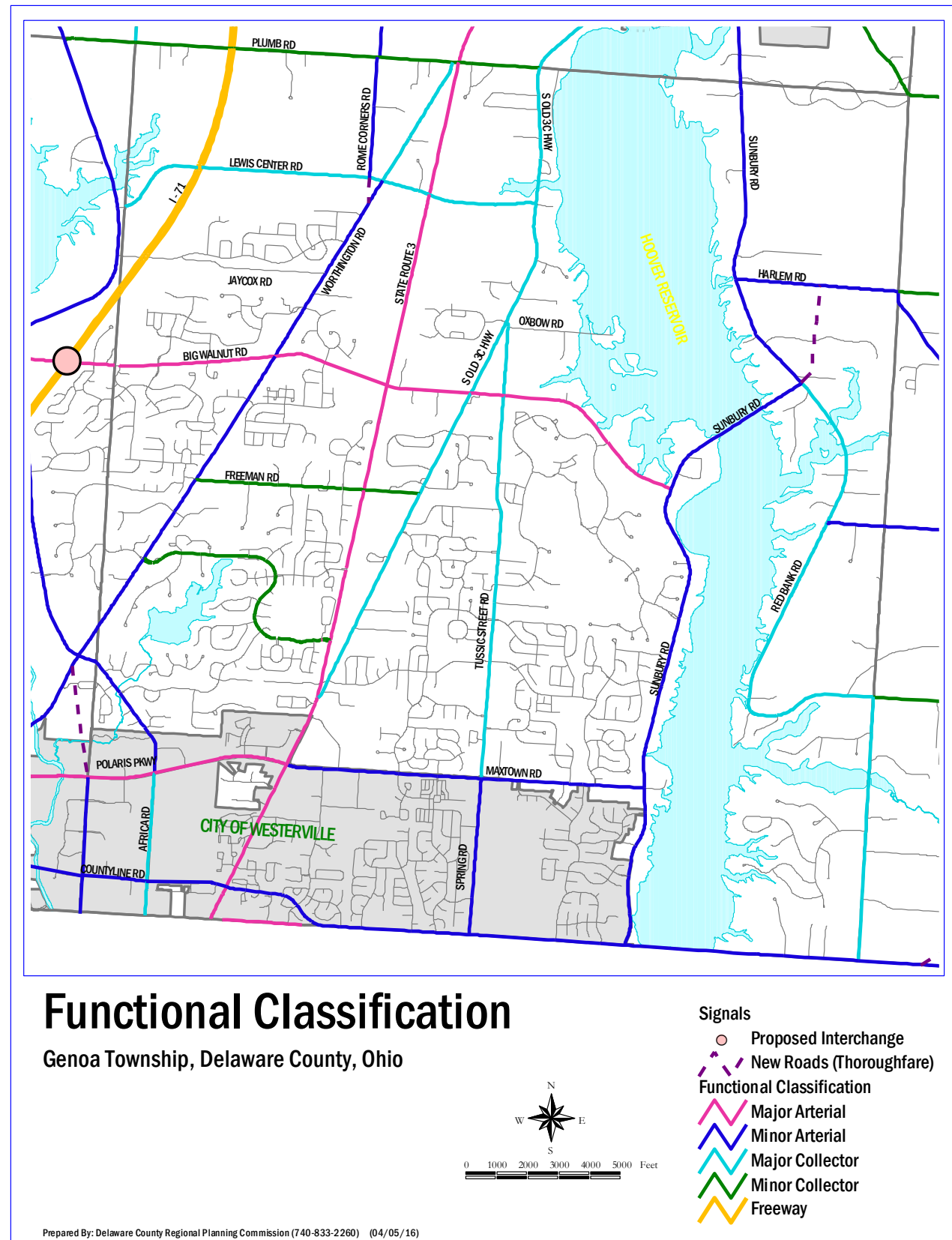
D. Access Management

State law empowers Counties and Townships to regulate driveway access points. The practice of limiting curb cuts to major roads prevents conflicting turning movements and maintains safe traffic flow. Either Genoa Township or the County Engineer may create access management standards.

E. Traffic Impact

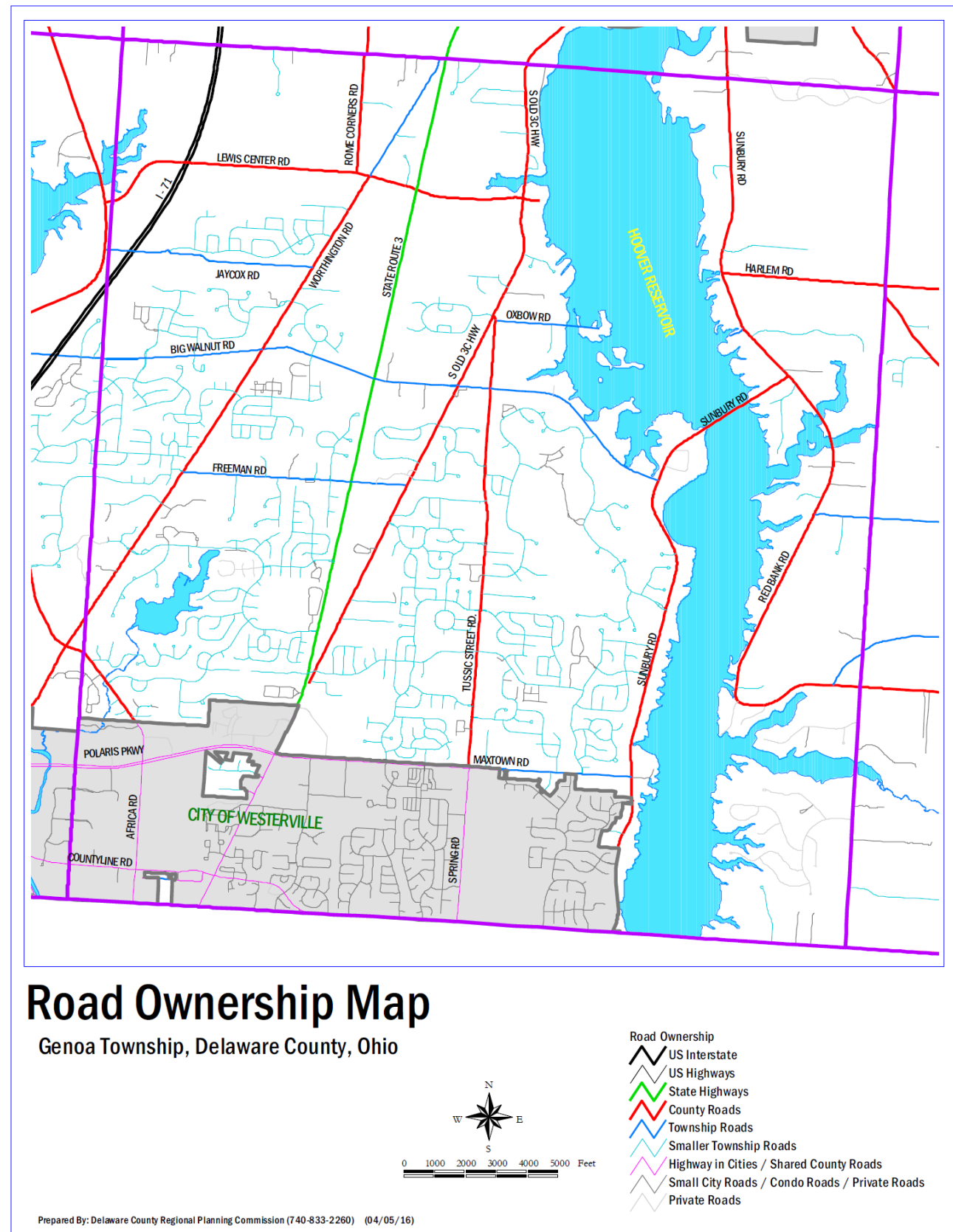
New development proposals shall continue to mitigate their trip generation impact. As a general rule, if the trip generation is more than 1,000 vehicles per day for a residential development, a traffic study shall be performed to determine the impact and mitigation needed. Other types of development, such as commercial or industrial, are required to perform a traffic study per current Delaware County Engineer's Design Construction and Surveying Standards. Current Level of Service (LOS) and post development LOS should be compared. In general, if LOS is predicted to drop below level C, mitigation shall be part of the development project.

FIGURE 3.18 – FUNCTIONAL CLASSIFICATION OF ROADWAYS AND PROPOSED ROADS



(Source: 2001 Delaware County Thoroughfare Plan and DCRPC, February 2016)

FIGURE 3.19 – ROAD OWNERSHIP MAP



(Source: DCRPC, October 2016)

IX. Economic Development

Genoa Township is nearly built-out. Approximately 15 percent of remaining land in the Township is considered to be undeveloped. There are likely no undeveloped parcels left that are suitable for new commercial or industrial districts without meeting opposition from adjacent residents.

X. Annexation

It has been acknowledged through previous planning processes that jurisdictions may have a further interest in annexing portions of Genoa Township. Annexation would have direct impacts on the Township's tax base by lowering the amounts collected from residents and businesses. A lower tax base negatively impacts funds available to provide safety and other services. Additionally, there could be lifestyle and environmental impacts as the Township would no longer have any jurisdiction over these lands and would be unable to control housing density, orderly development, permitted uses for businesses, preservation of natural resources and amenities, etc. Such annexation should be discouraged to protect the Township's existing character and interests.

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