

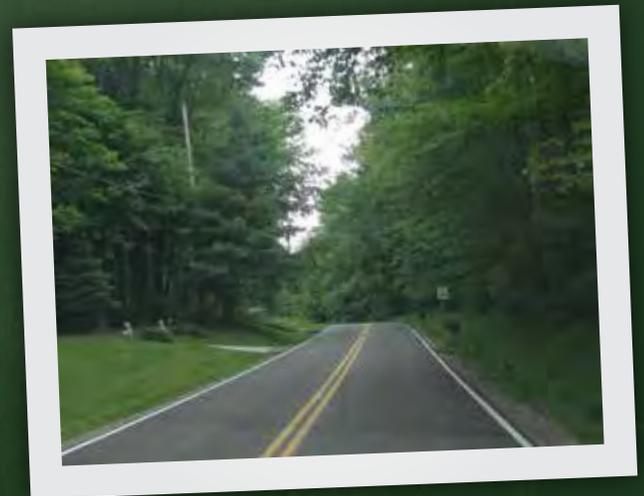
BAINBRIDGE TOWNSHIP

Land Use & Development Code

**STRATEGIC ASSESSMENT
& ANNOTATED OUTLINE**



KENDIG KEAST
COLLABORATIVE



PART I

Introduction

AUGUST 24, 2012



1.1 Introduction and Purpose of Strategic Assessment

In 2006, Bainbridge Township adopted an update to its Land Use Plan. The Land Use Plan sets out a vision for anticipated growth by establishing “basic guidelines and objectives for future development in the township.” The Land Use Plan details the Township’s limited capability to provide urban services, and consequently envisions that the Township will be “a low-density residential community, with nonresidential development generally limited to that necessary for the convenience of the residents.” The Land Use Plan suggests that the “natural rural quality of the landscape should be preserved insofar as possible.”¹

The state of Ohio does not have a detailed comprehensive planning mandate. However, Township’s Zoning Resolutions must be “in accordance with a comprehensive plan.”² Although there are no specific requirements of what a comprehensive plan must include, this Assessment assumes that the Land Use Plan is a sufficient “comprehensive plan” for the purposes of guiding the development of a new

Township Zoning Resolution.

“The purpose of this plan is to provide a firm foundation for the zoning regulations of Bainbridge Township. The plan represents a framework within which township officials may guide the future growth of the community in a balanced and orderly fashion.”

Source: Bainbridge Township Land Use Plan (2006)

In *Rumpke Waste, Inc. v. Henderson*, 591 F. Supp. 521 (S.D. Ohio 1984), the Federal District Court for the Southern District of Ohio stated that “comprehensive plan” is a “flexible term,” but that it “must be sufficiently detailed that a potential purchaser might ascertain in advance to what use property might be put.” With respect to sufficient detail, the plan must “define with certainty the location, boundaries and areas of the * * * districts,” and a failure to do so renders the plan invalid. *Village of Westlake v. Elrick*, 83 N.E.2d 646 (8th Dist. 1948).³

1 Bainbridge Township Land Use Plan. 1996 Amendment.

2 O.R.C. § 519.02.

3 *White Oak Property Dev., LLC v. Washington Twp, Ohio*, 2012 Ohio 425 (Ohio App. 2012)

In addition to ensuring that the Township Zoning Resolution is “in accordance with” the new Land Use Plan (comprehensive plan), there are other reasons why rewriting the Zoning Resolution is prudent. The existing Zoning Resolution has been around for about 25 years. It has been amended several times over the past few decades, but it does not reflect the advancement in regulatory tools and techniques during that period. New tools and techniques which may be better suited in helping the Township protect public health and safety and, in certain instances, achieve its objectives for the purposes of public convenience, comfort, prosperity, or general welfare. (See **Part II, Legal Framework**). These alternative approaches are introduced in this assessment and will be further explored throughout the rewrite process.

In sum, the purpose of this Strategic Assessment and Annotated Outline is to lay the groundwork for developing Bainbridge Township’s new Comprehensive Zoning Resolution (“CZR”), in accordance with the comprehensive plan, statutory mandates, and statutory grants of authority.

Indeed, the “bridge” between the Land Use and Guide Plan and the CZR begins with this document, and will be subsequently constructed using a sequence of staff, Commission, Board of Trustees, and other public meetings during the course of the project. The Assessment also includes an annotated outline of the new CZR, which sets the framework for a better organized and more user-friendly set of regulations.

1.2 Informing the Assessment

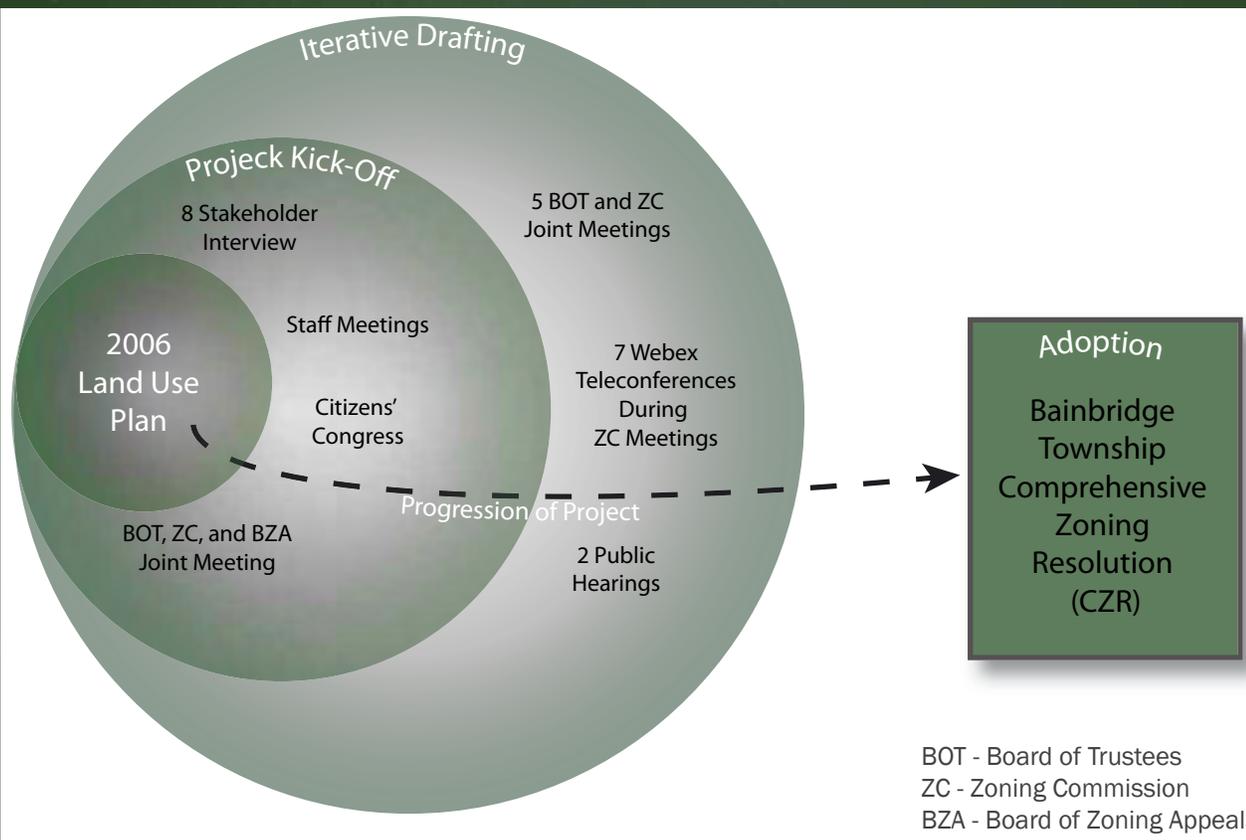
Before and during the project kick-off, KKC gathered community input using stakeholder groups and community meetings; meetings with staff and elected and appointed officials; research into previous plans, studies, and existing local, state, and federal regulations; as well as field reconnaissance. During these meetings KKC started to develop a mental framework of which regulatory approach may be best suited to help the Township achieve its envisioned future.

However, in order to ensure the new CZR is tailored specifically to the Township and its vision, the community and its elected and appointed leaders must be engaged in a deliberate process where priorities among competing or balancing objectives are first established, and secondly, regulatory “tools” for implementing the planning priorities are selected and calibrated. KKC solicits this feedback by engaging the community, staff, and elected and appointed officials early and often (see **Figure 1.1, Community Input and Strategic Guidance** on Page 1.3).

A priority articulated during the public participation process is a desire for the Township to maintain its rural character. KKC submits that the rural character and development pattern of the Township promotes certain public interests which support the zoning powers of the Township, and therefore the grant of zoning authority in the Ohio Revised Code can be used to advance this community priority (see **Table 2.1, Permissible Interests by Type of Zoning Regulation** on Page 2.5). It was also apparent through the public participation process, that there are many interpretations of what constitutes rural character. Therefore, through this Assessment and throughout the regulatory drafting process, “rural character” will be clearly defined in a way that dovetails into the interests which the Ohio Legislature has empowered the Township to pursue with zoning regulations.

There were also many other special issues that were frequently discussed during the public process. These are briefly listed here and are expanded upon in **Part III, Policies and Directions**. Some of these include improving building and site design standards (including architectural design review); landscaping and buffering; impervious surface controls; land use and housing types; neighborhood protection and conservation; environmental resource protection and sustainability (e.g., solar and wind energy standards); utilities (public water and sewer systems versus groundwater wells and septic); land uses and their impacts on character and the Township’s remaining agricultural and undeveloped lands; variances and

Figure 1.1, Community Input and Strategic Guidance



nonconformities; the interaction Geauga County regulatory provisions; and many others. All these and others are addressed in the Comprehensive Zoning Resolution.

1.3 What is a Comprehensive Zoning Resolution (“CZR”)?

Over the past two decades, jurisdictions across the country have increasingly migrated toward unified development codes to achieve a more coordinated set of development regulations, standards, and procedures. (see **Figure 1.2, Value and Benefit of a CZR** on Page 1.4). Bainbridge Township’s Comprehensive Zoning Resolution (CZR) will combine all of the Township’s development-related regulations into a single document, including those that are often triggered many months (depending on

the size and complexity of the development) before the public sees any activity on the ground. A CZR governs both development and redevelopment and generally includes the following:

- Zoning and land use;
- Density, intensity, bulk, and scale of buildings and structures;
- Resource protection standards;
- Site development and building standards;
- Landscaping and buffering;
- Parking, loading, and lighting;
- Stormwater management;
- Environmental protection and nuisance prevention; and
- Signs.

The CZR will also include provisions to determine

Figure 1.2, Value and Benefit of a CZR

- Consolidates all development-related ordinances into a single unified document. This helps to ensure consistency among the different components and promotes a more holistic evaluation of development requirements and standards by both applicants and the Township.
- Makes the regulatory specifics easier to navigate and comprehend (e.g., more “user friendly”) for the development, real estate and consultant communities. A single consolidated index and better cross-referencing across code sections helps to ensure that all relevant provisions are taken into account pertaining to any particular development issue or proposal.
- Condenses all administrative procedures and considerations, helping to streamline and make clearer the roles and responsibilities of each official and decision-making body.
- Offers a consolidated list of definitions, which helps to prevent inconsistencies and questions of interpretation between ordinances.
- Greatly improves the Township’s ability to track the total development process because various components are organized and coordinated in a logical, sequential order.
- Simplifies and streamlines the process for future ordinance amendments and enhancements.

- Identify those responsible for making decisions, e.g., Board of Trustees, Zoning Commission, Board of Zoning Appeals, staff, and other as applicable;
- Define the processes and timelines of different types of development approvals; and
- Set review standards and criteria for each administering body and for each approval type.

The CZR will not incorporate building codes or building permitting processes, but rather will make references between the two sets of regulations.

1.4 Advisable Plan Amendment

During the course of developing the CZR, there will be a close review of the expressed and implied policies set forth in the Land Use Plan and Guide Plan. This is to ensure their implementation through the CZR and to support and secure the township’s public health and safety and where permissible, the objectives of public convenience, comfort, prosperity, or general welfare. To the extent that additions or amendments of the plans are warranted based on new information revealed during the work on the CZR, KKC will offer such input for the consideration of the Township.

nonconforming (or “grandfathered”) status, where it will be determined at what point an existing site must comply with new development standards. A well-organized CZR keeps the standards that govern development, as listed above, separate from the administrative bodies and procedures, which will:

PART II

Legal Context

AUGUST 24, 2012



2.1 LEGAL CONTEXT

DISCLAIMER: Kendig Keast Collaborative (“KKC”) is not a law firm and does not provide legal advice to its clients. The purpose of this section of the Assessment is to provide a planning level overview of the legal contours of creating an updated zoning resolution as the consultant understands them. This section provides guidance to the drafting team about the strategic directions of the project in light of the consultant’s understanding of applicable state law, and provides a starting point for discussion about the potential legal ramifications of different regulatory choices. The Township is encouraged to provide an independent legal review of this assessment and of the proposed Comprehensive Zoning Resolution (“CZR”) as it is developing, and to provide appropriate direction to the consultant the Township determines is as necessary or prudent.

2.2 SOURCE OF AUTHORITY

In the absence of “home rule,” the standard for evaluating the scope of local government authority

is referred to as “Dillon’s rule.”¹ Dillon’s rule, named for the Iowa judge who first articulated it, provides that the local government:

possesses and can exercise the following powers and no others: First, those granted in express words; second, those necessarily implied or necessarily incident to the powers expressly granted; third, those absolutely essential to the declared objects and purposes of the corporation—not simply convenient, but indispensable; fourth, any fair doubt as to the existence of a power is resolved by the courts against the corporation—against the existence of the power.

Southern Constructors v. Loudon County Bd., 58 S.W.3d 706 (Tenn. 2001) (quoting *Merriam v. Moody’s Ex’r*, 25 Iowa 163, 170 (1869)).

¹ The constitution and statutes of the state of Ohio do not grant broad “home rule” authority to Township governments. Although a grant of authority called “limited home rule” is available by referendum under O.R.S. § 504.01(A)(2), Bainbridge Township has not passed such a referendum.

Dillon's rule controls Township zoning resolutions:

The zoning power of a township is a police power which is delegated by the General Assembly. See *Yorkavitz v. Bd. of Columbiana Twp. Trustees* (1957), 166 Ohio St. 349, 351, 2 O.O.2d 255, 142 N.E.2d 655. "[T]he zoning authority possessed by townships in the state of Ohio is limited to that which is specifically conferred by the General Assembly." See *Bd. of Bainbridge Twp. Trustees v. Funtime, Inc.* (1990), 55 Ohio St.3d 106, 108, 563 N.E.2d 717. Accordingly, to the extent that a zoning regulation or rule violates an explicit statutory command of the General Assembly, it is preempted and is therefore, invalid and unenforceable. *Newbury Twp. Bd. of*

Trustees v. Lomak Petroleum (1992), 62 Ohio St.3d 387, 583 N.E.2d 302, paragraph one of the syllabus. See, also, *Funtime* at paragraph two of the syllabus; *Crist v. True* (1973), 39 Ohio App.2d 11, 12, 314 N.E.2d 186; *Cole*, 39 Ohio App.2d at 181, 317 N.E.2d at 67-68]. Ohio Revised Statute 519 confers limited zoning authority to townships. The Ohio Supreme Court has held that a township's zoning authority is limited to the powers specifically conferred in R.C. 519.02 and does not extend to operational requirements, such as the hours of operation.

Bainbridge Twp. Bd. of Trustees v. Funtime, Inc. (1990), 55 Ohio St.3d 106, 563 N.E.2d 717.

Figure 2.1, Section 519.02, Ohio Revised Code

(A) Except as otherwise provided in this section, in the **interest of the public health and safety**, the board of township trustees may regulate by resolution, in **accordance with a comprehensive plan**, the **location, height, bulk, number of stories, and size** of buildings and other structures, including tents, cabins, and trailer coaches, **percentages of lot areas that may be occupied, set back** building lines, sizes of **yards, courts**, and other **open spaces**, the **density** of population, the uses of buildings and other structures, including tents, cabins, and trailer coaches, and the uses of land for trade, industry, residence, recreation, or other purposes in the unincorporated territory of the township. Except as otherwise provided in this section, **in the interest of the public convenience, comfort, prosperity, or general welfare**, the board by resolution, **in accordance with a comprehensive plan**, may regulate the **location** of, **set back** lines for, and the **uses** of buildings and other structures, including tents, cabins, and trailer coaches, and the uses of land for trade, industry, residence, recreation, or other purposes in the unincorporated territory of the township, and may establish **reasonable landscaping standards** and **architectural standards** excluding exterior building materials in the unincorporated territory of the township. Except as otherwise provided in this section, **in the interest of the public convenience, comfort, prosperity, or general welfare**, the board may regulate by resolution, **in accordance with a comprehensive plan**, for **nonresidential property only**, the **height, bulk, number of stories, and size** of buildings and other structures, including tents, cabins, and trailer coaches, **percentages of lot areas that may be occupied**, sizes of **yards, courts**, and other **open spaces**, and the **density** of population in the unincorporated territory of the township. For all these purposes, the board may divide all or any part of the unincorporated territory of the township into districts or zones of such number, shape, and area as the board determines. All such regulations shall be uniform for each class or kind of building or other structure or use throughout any district or zone, but the regulations in one district or zone may differ from those in other districts or zones.

For any activities permitted and regulated under Chapter 1513. or 1514. of the Revised Code and any related processing activities, the board of township trustees may regulate under the authority conferred by this section only in the interest of public health or safety.

(B) A board of township trustees that pursuant to this chapter regulates adult entertainment establishments, as defined in section 2907.39 of the Revised Code, may modify its administrative zoning procedures with regard to adult entertainment establishments as the board determines necessary to ensure that the procedures comply with all applicable constitutional requirements.

Effective Date: 09-17-1957; 11-05-2004; 05-06-2005; 05-27-2005; 08-17-2006

Table 2.1
Permissible Interests by Type of Zoning Regulation

Type of Regulation	Permissible Interest to be Served	
	Public Health and Safety	Public Convenience, Comfort, Prosperity, or General Welfare
Buildings and Structures		
Location	Yes ^a	Yes
Height	Yes	Yes, but only for nonresidential buildings
Bulk	Yes	
Number of Stories	Yes	
Size of Buildings and Structures	Yes	
Architectural Standards	Yes (by implication) ^b	Yes, except exterior building materials
Lot and Site Development		
Lot coverage (%)	Yes	Yes, but only for nonresidential buildings
Setback lines	Yes	Yes
Size of yards, courts, and open spaces	Yes	Yes, but only for nonresidential buildings
Landscaping	Yes (by implication) ^b	Yes, but must be “reasonable”
Floodplain	As necessary for participation in the national flood insurance program, and not in conflict with building codes. See § O.R.C. 505.75	
Land Use		
“Density of Population”	Yes	Yes, but only for nonresidential buildings
Regulation of land use (including use of buildings and structures) ^c	Yes	Yes

- (a) The legislative intent that the regulation of the “location” of buildings can only serve health and safety interests is not clear because districts, use regulations, and setbacks (which may serve other than public health and safety interests) all have a locational aspects.
- (b) This Assessment assumes that “public health and safety” interests are subsumed into “public convenience, comfort, prosperity, or general welfare” interests. Put another way, where the statute allows a type of regulation in the interest of “public convenience, comfort, prosperity, or general welfare,” but is silent about whether that type of regulation can permissibly serve “public health and safety” interests, this Assessment assumes that “public health and safety” interests are allowed to the same extent of other interests by necessary implication.
- (c) The regulation of use may be for “trade, industry, residence, recreation, or other purposes...” O.R.C. § 519.02, Board of Township Trustees may regulate location, size, and use of buildings and lands in unincorporated territory.

Put simply, regulatory drafting for Bainbridge Township must closely track statutory authorizations, including the types of regulations that are allowed, and the purposes for which regulations may be adopted.

2.3 SCOPE OF AUTHORITY

The Ohio Revised Code establishes the scope of authority of the Township are of the use and development of land. The principle grants (and

limitations) of authority are in Chapter 519, Township Zoning. There are a variety of other narrow authorizations and limitations in other chapters of the Ohio Revised Code.

The statutory prohibition against violating the zoning resolution sets out its general applicability:

No building shall be located, erected, constructed, reconstructed, enlarged, changed, maintained, or used, and no land

shall be used in violation of any resolution, or amendment or supplement to such resolution, adopted by any board of township trustees under sections 519.02 to 519.25, inclusive of the Revised Code. Each day's continuation of a violation of this section may be deemed a separate offense.

O.R.C. § 519.23.

2.3.1 Substantive Authority, Generally

Section 519.02, Ohio Revised Code, establishes the key contours for township zoning regulations. Like many other state zoning enabling statutes, the law requires that the zoning resolution be drafted “in accordance with a comprehensive plan.” Section 519.02 allows the zoning resolution to include as many districts that the Township determines are appropriate. Zoning regulations must be uniform for each class or kind of building or other structure or use throughout each district, but the regulations in one district may differ from those in other districts.

Section 519.02 also limits the zoning power by enumerating topics which may be regulated, and then tying those regulations to specific public interests. A summary of the requirements of O.R.C. § 519.02 is set out in **Table 2.1, Permissible Interests by Type of Zoning Regulation.**

As Kendig Keast Collaborative understands it, the legislature's decision to tie different types of regulation to different interests is intended to ensure that there is a nexus between regulatory requirements and permissible interests. Presumably, this is to avoid “overreach,” particularly with respect to the regulation of residential development since it is limited only to the interests of public health and safety.

By way of example, the legislature has determined that it is permissible to regulate the height of a nonresidential building to promote a desired community aesthetic (a “general welfare” interest), but it is not permissible to regulate the height of a

residential building (even an apartment tower) to promote the same interest. Yet, regulation of the height of residential buildings is permissible if it is related to health and safety interests, such as the ability to provide effective emergency services; or, potentially, preventing winter shade on abutting streets and sidewalks.²³

The same analysis applies to lot coverage and open space requirements. That is, the Township may regulate lot coverage and open space on nonresidential parcels to promote a desired aesthetic, but for residential development, it is limited to “public health and safety” interests. That said, it is reasonable to suggest that there is little in the way of “fair doubt” that the phrase “public health and safety” subsumes:

1. Ensuring the quality and stability of local food production.
 - Provision of local food production and sustenance through the protection of prime agricultural land (66 percent of the Township has soils of a quality and moisture to produce high crop yields);
 - Prevention of erosion and runoff of soil and sediment during construction.
 - Protection of groundwater and surface water resources (quantity and quality) by reducing nutrient and sediment loading to streams and by providing sufficient permeable surface for aquifer recharge and / or proper function of on-site sewer systems;
 - Preservation of water quality and sensitive ecological conditions that are threatened by soil erosion and soil sediment that pollute streams;⁴

4 Regarding sediment runoff, the Township's Zoning Resolution addresses water and sediment runoff on sites under five acres. Also, the Geauga County Board of Commissioners adopted water and soil sediment pollution control regulations in 1979, which are enforced by the Geauga

- Protection of wetlands as means for improving water quality and managing storm water by retention during storm events;
2. Protecting the quality of surface water and ground water.
 - Prevention of the installation of septic systems which will function poorly or improperly because of soil and slope conditions;
 - Prevention of the improper operation of on-site sewage disposal systems, cracked or damaged foundations, and wet or flooded basements due to a seasonal high water table;
 - Preventing damage to roads, buildings, and structures by avoiding or minimizing impacts on areas with unsuitable soils.
 - Avoidance of deteriorating roads and cracked or moving building foundations by avoiding overdevelopment of soils which are prone to shrinking and swelling;
 - Avoidance of damage to foundations and structures caused by heaving, excessive wetting, and loss of soil strength due to substantial ground freezing;
 - Effective operation of septic tank leach fields due to the rate of soil permeability;
 3. Preventing harms to life, health, and property from fires and flooding.
 - Prevention of the spread of fire;
 - Prevention of flood damage and flood losses;
 4. Ensuring sufficient space and facilities for outdoor recreation.
 - Provision of sufficient space for outdoor recreation.⁵

Based on the requirements of Section 519.02, this Assessment recommends that:

- Documentation of the anticipated public health and safety implications of regulations which fall into the “public health and safety” column of Table 2.1 be included in the legislative record of the CZR and referenced in the resolution’s preamble; and / or
- Purpose statements within the CZR should describe the interests that are served by the CZR’s requirements.
- The CZR should provide cross-references to provisions of the Ohio Revised Code that authorize or require regulation.

2.3.2 Specific Uses

In addition to the general grant of authority to Townships to implement zoning resolutions, the Ohio Revised Code includes provisions with respect to a variety of specific land uses, which expand or limit the regulatory authority of the Township in narrow ways. These include:

- *Adult Entertainment.* Township authority is expanded to “home rule” status with respect to the regulation of adult entertainment establishments. See ORC §§ 503.51, *et seq.*, and 519.02.
- *Amateur Radio.* Townships may not preclude amateur radio antennae. The regulation of the height and location of amateur radio antennae cannot prevent effective communications, and must comply with federal requirements. Townships must provide reasonable accommodations for amateur radio, and regulations must be “the minimum practicable regulation necessary to accomplish the legislative authority’s purpose.”

things you can do for your health.” (emphasis added). See “Physical Activity for Everyone: the Benefits of Physical Activity” at <http://www.cdc.gov/physicalactivity/everyone/health/index.html> <last visited August 10, 2012>

Soil and Water Conservation District (SWCD).

5 According to the U.S. Centers for Disease Control and Prevention, “Regular physical activity is one of the most important

O.R.C. §§ 519.214 and 5502.031.

- *Outdoor Advertising.* In Ohio, outdoor advertising has the status of a “business use” (as opposed to just a “sign” or “off-premises sign”). It must be allowed in all districts zoned for industry, business, trade, or agriculture. See ORC § 519.20. The size, height, design⁶, and setbacks of outdoor advertising displays may be regulated for “public convenience, comfort, prosperity, or general welfare.”⁷
- *Alcohol.* The Township cannot prohibit the sale or use of alcoholic beverages in areas where the establishment and operation of any retail business, hotel, lunchroom, or restaurant is permitted. See O.R.S. § 519.211(D).
- *Agriculture.* The general rule is that the Township cannot prevent the use of any land “for agricultural purposes or the construction or use of buildings or structures incident to the use for agricultural purposes of the land on which such buildings or structures are located, . . . , and no zoning certificate shall be required for any such building or structure.” However, there are exceptions with respect to lots which are less than five acres in area. On these lots, the Township may regulate:
 - The use of land for agriculture, and the related buildings and structures put to agricultural use (within the constraints applicable to nonresidential uses), on lots of one acre or less.
 - Buildings or structures incident to the use of land for agricultural purposes on lots greater than one acre but not greater than five acres.

However, regulation is limited to: set back building lines; height; and size.

- Dairying and animal and poultry husbandry on lots greater than one acre but not greater than five acres when certain conditions are met.

The Township has no zoning power with respect to a building or structure of, or the use of land by, a person engaged in the transportation of farm supplies to the farm or farm products from farm to market or to food fabricating plants. See O.R.C. § 519.21(C).

- *Manufactured Housing.* The Township may not “prohibit or restrict the location of a permanently sited manufactured home . . . in any district or zone in which a single-family home is permitted.” However, it may apply “all zoning requirements that are uniformly imposed on all single-family residences . . . except requirements that specify a minimum roof pitch and requirements that do not comply with the standards established pursuant to the ‘Manufactured Housing Construction and Safety Standards Act of 1974,’ . . . 42 U.S.C.A. 5401. The Township may also prohibit manufactured homes which do not qualify under state statutes as “permanently sited manufactured homes.” ORC § 519.212⁸.
- *Group Housing.* There are several types of group housing that are protected from regulation by the Ohio Revised Code. They are adult care facilities (see ORC § 5119.72(A)), adult group homes (see ORC § 5119.72(B)), and several different types of “residential facilities” (see ORC § 5123.19). In many cases, group housing arrangements will also be protected by federal law, such as the Fair Housing Act. Specifically:

- Adult care facilities and licensed “residential

⁶ Design may be regulated within the contours of the First Amendment to the U.S. Constitution.

⁷ KKC anticipates that the argument that regulation of LED displays is precluded by the ban on architectural standards which affect “exterior building materials” may ultimately be advanced. The counter-argument is that design standards may apply to lighting and animation without regard to materials. Still, while there is little doubt that a *municipality* could regulate LED displays under its police powers (see, e.g., *Hilton v. City of Toledo*, 405 N.E. 2d 1047 (Ohio 1980)), KKC suggests that the Township obtain a legal opinion on this point if it seeks to regulate LED displays.

⁸ This section does not prohibit a private landowner from incorporating a restrictive covenant in a deed, prohibiting the inclusion on the conveyed land of manufactured homes. [See ORC § 519.212(C)].

facilities”⁹ for six to eight persons must be a permitted use in residential districts. Such facilities may be required to comply with area, height, yard, and architectural compatibility requirements that are uniformly imposed upon all single-family residences within the district or zone.

- Adult group homes and “residential facilities” for nine to 16 persons must be allowed in multiple-family residential districts, except PUDs. In multiple-family districts, such facilities may be subject to conditional use standards and procedures, under reasonable and specific standards and conditions set out in the zoning ordinance or resolution to:
 - Require the architectural design and site layout of the home and the location, nature, and height of any walls, screens, and fences to be compatible with adjoining land uses and the residential character of the neighborhood;
 - Require compliance with yard, parking, and sign regulation; and
 - Avoid excessive concentration of such facilities.
- *Utilities and Telecommunications Towers.* Generally, townships have no zoning authority over utilities and railroads.¹⁰ [See ORC § 519.211]. With respect to telecommunications towers, the developer of the tower must notify neighbors and the Township. After the notice, Township zoning regulations apply only upon request of a noticed neighbor or Township trustee.

- *Major Utilities and “Economically Significant Wind Farms.”* Ohio has a statewide power siting board, which appears to have exclusive jurisdiction over siting major utilities (power plants and many natural gas facilities) and “economically significant wind farms”¹¹ within unincorporated areas. See O.R.C. ch. 4906, *Power Siting*.¹²
- *Small Wind Farms.* Notwithstanding the restrictions on Township regulation of major utilities and “economically significant wind farms,” a Township may regulate – more strictly than the state – the “location, erection, construction, reconstruction, change, alteration, maintenance, removal, use, or enlargement of any small wind farm, whether publicly or privately owned, or the use of land for that purpose.”¹³ See ORC § 519.213.

11 According to O.R.C. § 4906.01(B)(1), “Major utility facility” means:

- (a) Electric generating plant and associated facilities designed for, or capable of, operation at a capacity of fifty megawatts or more;
- (b) An electric transmission line and associated facilities of a design capacity of one hundred twenty-five kilovolts or more;
- (c) A gas or natural gas transmission line and associated facilities designed for, or capable of, transporting gas or natural gas at pressures in excess of one hundred twenty-five pounds per square inch.

(2) “Major utility facility” does not include gas or natural gas transmission lines over which an agency of the United States has exclusive jurisdiction, any solid waste facilities as defined in section 6123.01 of the Revised Code, or either of the following as defined by the power siting board:

- (a) Electric, gas, natural gas distributing lines and gas or natural gas gathering lines and associated facilities;
- (b) Any manufacturing facility that creates byproducts that may be used in the generation of electricity.

“Economically significant wind farms” are defined in O.R.C. § 4906.13(A) as “wind turbines and associated facilities with a single interconnection to the electrical grid and designed for, or capable of, operation at an aggregate capacity of five or more megawatts but less than fifty megawatts.”

12 Section 4906.13, Ohio Revised Code provides, “No public agency or political subdivision of this state may require any approval, consent, permit, certificate, or other condition for the construction or initial operation of a major utility facility or economically significant wind farm authorized by a certificate issued pursuant to Chapter 4906 of the Revised Code.” Section 4906.13 continues, “Nothing herein shall prevent the application of . . . municipal regulations that do not pertain to the location or design of, or pollution control and abatement standards for, a major utility facility or economically significant wind farm for which a certificate has been granted under this chapter.” KKC assumes that the phrase “municipal regulations” does not include regulations by townships.

13 A small wind farm is defined as being rated at less than five megawatts, with a single utility interconnect.

9 Defined as facilities that provide room and board, personal care, habilitation services, and supervision in a family setting for persons with mental retardation or a developmental disability.

10 The phrase “public utility” does not include “a person that owns or operates a solid waste facility or a solid waste transfer facility,” but it does include “publicly owned solid waste facility[ies] [and] publicly owned solid waste transfer facility[ies], that [have] been issued a permit under Chapter 3734 of the Revised Code [, as well as] construction and demolition debris facility[ies] that [have] been issued a permit under Chapter 3714 of the Revised Code.”

- *Oil and Gas Production.* Permits for the siting and operation of oil and gas wells are issued by the Chief of the Division of Oil and Gas Resources Management. Because Bainbridge Township is an “urbanized area,” its fencing, screening, and landscaping requirements, if any, for structures similar to those used for oil and gas production will be considered by the division in its permitting process. The terms and conditions that are attached to the permit have to include the establishment of fencing, screening, and landscaping requirements for the surface facilities of proposed wells, including tank batteries. See O.R.C. § 1509.06.
- *Surface Mining Activities.* For any activities permitted and regulated under Chapter 1513 or 1514, Ohio Revised Code (relating to surface mining), and any related processing activities, the board of township trustees may regulate under the authority provided in O.R.C. § 519.02 (the general grant of zoning authority), but only in the interest of public health or safety. Conditional use permits may be utilized for this purpose. See O.R.C. § 519.141.

2.3.3 Subdivisions

Townships do not have authority to approve subdivision plats. [See O.R.C. ch. 711, Plats]. Indeed, in unincorporated areas, plats are approved by the County (or Regional Planning Commission). That said, counties may require compliance with Township zoning as a condition of plat approval. Fortunately, Geauga County’s subdivision regulations include this requirement. [See, e.g., Geauga County Subdivision Regulations §§ 301C.6., 301E., 304A., 304G., 305C.6., 305E., 305G].

2.4 PROCEDURES

2.4.1 Generally

The Ohio Revised Code sets out the procedural

requirements for the administration, implementation, adoption, and amendment of Township zoning resolutions. The statutes provide mandates and options, which are discussed below.

2.4.2 Administrative Mandates

Zoning Certificates. “For the purpose of enforcing the zoning regulations, the board of township trustees may provide for a system of zoning certificates, may establish and fill the position of township zoning inspector, together with assistants as the board deems necessary”¹⁴ [ORC § 519.16]. Where zoning certificates are required, “No person shall locate, erect, construct, reconstruct, enlarge, or structurally alter any building or structure within the territory included in a zoning resolution without obtaining a zoning certificate.” [O.R.C. § 519.17].

Zoning Enforcement. A broad range of remedies is available for the enforcement of the zoning resolution, including “injunction, mandamus, [and] abatement” [O.R.C. § 519.24]. Fines are also an available enforcement tool, provided that they do not exceed \$500 per offense. [See O.R.C. § 519.99]. Fines may be compounded in that “Each day’s continuation of a violation . . . may be deemed a separate offense.” [O.R.C. § 519.23].

Township Zoning Commission. The zoning resolution must establish a Township Zoning Commission with five members, and, at the Board’s option, two alternates. [See O.R.C. § 519.04].

Board of Zoning Appeals. The zoning resolution must establish a Board of Zoning Appeals with five members who live in the unincorporated Township. Two alternates are also allowed, at the Township’s option. [See ORC § 519.13]. The Board of Zoning Appeals is tasked with:

- Hearing appeals from administrative decisions by any aggrieved party who files the appeal within 20 days of the decision;

¹⁴ The “zoning certificate” is the principal administrative permit issued pursuant to the zoning resolution.

- Authorizing “upon appeal, in specific cases, such variance from the terms of the zoning resolution as will not be contrary to the public interest, where, owing to special conditions, a literal enforcement of the resolution will result in unnecessary hardship, and so that the spirit of the resolution shall be observed and substantial justice done;” and
- Granting conditional zoning certificates.¹⁵ See ORC §§ 519.14, 519.141, and 519.15.

The timing and procedures for Board of Zoning Appeals hearings are established by O.R.C. § 519.15.

Nonconforming Uses. The statutes give a general prescription for dealing with nonconforming uses, but leave the determination of specific policies to the Township’s discretion.

The lawful use of any dwelling, building, or structure and of any land or premises, as existing and lawful at the time of enactment of a zoning resolution or amendment thereto, may be continued, although such use does not conform with such resolution or amendment, but if any such nonconforming use is voluntarily discontinued for two years or more, any future use of said land shall be in conformity with [the zoning resolution]. The board of township trustees shall provide in any zoning resolution for the completion, restoration, reconstruction, extension, or substitution of nonconforming uses upon such reasonable terms as are set forth in the zoning resolution.

O.R.C. § 519.19.

2.4.3 Administrative Options

Planned Unit Developments. Townships are authorized to include “planned-unit development”

¹⁵ The BZA may also revoke conditional zoning certificates for the extraction of minerals upon violation of terms of the certificate. Conditional zoning certificates for surface mining activities are subject to special rules and constraints. See O.R.C. § 519.141.

(“P.U.D.”) regulations in their zoning resolutions. The authorizing statute, O.R.C. § 519.021, defines “planned-unit development” as “a development which is planned to integrate residential, commercial, industrial, or any other use.” When a development is approved as a P.U.D., the P.U.D. approval (as opposed to the zoning resolution) establishes the standards for the development. Standards in a P.U.D. serve different purposes than standards in the zoning resolution. For P.U.D.s, the statutory mandate is to promote “the general public welfare, encourag[e] the efficient use of land and resources, promot[e] greater efficiency in providing public and utility services, and encourag[e] innovation in the planning and building of all types of development.” [O.R.C. § 519.021].

The P.U.D. is a sort of “master approval,” which sets “standards to be used by the board of township trustees or, if the board so chooses, by the Township Zoning Commission, in determining whether to approve or disapprove any proposed development within a planned-unit development.” [O.R.C. § 519.021]. “Within a planned-unit development, the township zoning regulations, where applicable, need not be uniform, but may vary in order to accommodate unified development and to promote the public health, safety, morals, and the other purposes of [O.R.C. § 519.021].”

Planned-unit developments may be included in the township zoning resolution in four different ways:

- First, P.U.D. regulations (including substantive standards) may be included as part of the adopted zoning resolution. Property owners may then seek a rezoning (see O.R.C. 519.12) to the P.U.D. zone in order to have the P.U.D. regulations applied to their property during subsequent approval processes. The P.U.D. regulations replace the former zoning regulations as to the owners’ property.
- Second, the Board of Township Trustees may establish a P.U.D. upon the application of property owners. In such case, the rezoning to P.U.D. and

the development and adoption of substantive standards for the P.U.D. happen simultaneously. The P.U.D. regulations replace the former zoning regulations as to the owners' property.

- Third, the Board of Township Trustees may adopt planned-unit development regulations and amend the zoning map to rezone property as planned-unit developments. In such case, the P.U.D. regulations do not replace the former zoning regulations unless the Board or the Township Zoning Commission approves an application by an owner of property within the district to subject the owner's property to the P.U.D. regulations.
- Fourth, a P.U.D. may be authorized as a conditional use.

In Bainbridge Township, the P.U.D. (particularly as implemented through the first option set out above) may be used as a way to allow for controls over the height, bulk, number of stories, size, lot coverage, and open space within development which is principally residential, for the purposes of promoting "the general public welfare, encouraging the efficient use of land and resources, promoting greater efficiency in providing public and utility services, and encouraging innovation in the planning and building of all types of development."¹⁶

Architectural Review. The Board of Township Trustees may create an architectural review board to enforce compliance with any zoning standards it may adopt pertaining to landscaping or architectural elements.¹⁷ [See ORC § 519.171]. If such a board is created, the zoning resolution must include standards and procedures for the architectural review board to use in reviewing zoning permit applications for compliance with those landscaping or architectural standards.

¹⁶ Under "straight zoning," these types of regulation may only serve the interests of "public health and safety."

¹⁷ If the Board of Township Trustees does not create an architectural review board, it may delegate this authority to the zoning inspector or the Zoning Commission instead.

If an architectural review board is created, it must consist of no more than five residents of the unincorporated territory of the Township. At least one member must be a licensed architect or engineer; unless no architects or engineers live in the Township, in which case the architect or engineer may be a resident of the county instead.

2.4.4 Adoption and Amendment

The procedures for adopting a new CZR are set out in O.R.C. §§ 519.03 to 519.12. Bainbridge Township has an existing Zoning Resolution, which presumably followed these procedures prior to adoption. Accordingly, it is not clear whether the requirements of O.R.C. §§ 519.03 to 519.12 are necessary for the proposed revision of the existing resolution – even at the scale of a rewrite.¹⁸

The procedures for adopting a new CZR and subsequently amending it are set out below.

Procedures for Adopting a New Zoning Resolution. Adopting a new Township zoning resolution is a lengthy six-step process, which begins with a resolution of intent and ends with a referendum. The steps include:

Step 1. Section 519.03, Ohio Revised Code, provides that, "Before availing itself of the powers conferred by Section 519.02 of the Revised Code [authorization to adopt a zoning resolution], the Board of Township Trustees shall pass a resolution declaring its intention to proceed under sections 519.02 to 519.25 of the Revised Code."

Step 2. The CZR must be recommended by the Zoning Commission after a public hearing. [See O.R.C. §§ 519.05 and 519.06]. Notice of the public hearing must be published in a newspaper of general circulation in the Township at least 30 days in advance of the hearing. [See O.R.C. § 519.06].

¹⁸ Whether the full procedures for adopting a new zoning resolution are required in the case of a rewrite of the zoning resolution should be determined by the Township's attorney.

Step 3. After the Zoning Commission’s public hearing, the proposed CZR must be submitted to the County Planning Commission for approval, disapproval, or suggestions. “The approval of the planning commission shall be conclusively presumed unless, within twenty days after receiving the proposed zoning resolution, it notifies the zoning commission to the contrary.” [O.R.C. § 519.07].

Step 4. If the County Planning Commission disapproves of the proposed CZR or suggests any material change, the Township Zoning Commission must hold another public hearing on the resolution after 30 days’ published notice. When the Zoning Commission completes its recommendations, it certifies the proposed CZR and map to the Board of Township Trustees. [See O.R.C. § 519.07].

Step 5. From there, O.R.C. § 519.08 requires that, “After receiving the certification of a zoning plan from the township zoning commission, and before adoption of any zoning resolution, the board of township trustees shall hold a public hearing on the resolution, at least thirty days’ notice of the time and place of which shall be given by one publication in a newspaper of general circulation in the township.” The Board of Township Trustees cannot make changes to the certified text or map unless it resubmits them to the Township Zoning Commission for approval, disapproval, or suggestions, and then holds a second public hearing upon 10 days’ published notice. If the Township Zoning Commission disapproves proposed changes, the Board may adopt them only by unanimous vote of its entire membership.

Step 6. After adoption by the Board, the CZR must be submitted for approval by referendum. [See O.R.C. § 519.011].

Procedures for Amendments to an Existing Zoning Resolution. CZRs may be amended using a four-step process: (1) initiation; (2) referral to the

County Planning Commission; (3) public hearing by the Township Zoning Commission; and (4) public hearing by the Board. After adoption by the Board, amendments to the CZR may be subject to petition for referendum.

Initiation. Amendments to the CZR may be initiated by:

- Motion of the Township Zoning Commission;
- Resolution of the Board of Township Trustees; or
- Application to the Township Zoning Commission by one or more of the owners or lessees of property within the area proposed to be changed or affected by the proposed amendment.

Referral. Within five days after the initiation of an amendment, the Township Zoning Commission must transmit a copy of it (together with text and map pertaining to it) to the County Planning Commission. The County Planning Commission recommends approval or denial of the proposed amendment (or the approval of some modification to it) and then submits its recommendation back to the Township Zoning Commission. The County recommendation must be considered at the public hearing held by the Township Zoning Commission on the proposed amendment.

Township Zoning Commission Hearing. After initiation of an amendment, the Township Zoning Commission sets a date for a public hearing, not less than 20 nor more than 40 days from the date of initiation. The notice which is required prior to the hearing varies with the scale of the proposed amendment.

If the proposed amendment intends to rezone or redistrict 10 or fewer parcels of land, published notice in a newspaper of general circulation, and written notice by first class mail (to all owners of property within and contiguous to and directly across the street from the area proposed to be rezoned or redistricted), must be given at least 10 days before the date of the public hearing.

If the proposed amendment alters the text of the zoning resolution, or rezones or redistricts more than 10 parcels of land, then notice by publication in a newspaper of general circulation at least 10 days before the date of the hearing shall set forth the time, date, and place of the public hearing and include all of the following:

1. The name of the Township Zoning Commission that will be conducting the hearing on the proposed amendment;
2. A statement indicating that the motion, application, or resolution is an amendment to the zoning resolution;
3. The time and place where the text and maps of the proposed amendment will be available for examination for a period of at least 10 days prior to the hearing;
4. The name of the person responsible for giving notice of the hearing by publication;
5. A statement that, after the conclusion of the hearing, the matter will be submitted to the Board of Township Trustees for its action; and
6. Any other information requested by the Township Zoning Commission.

The Township Zoning Commission, within 30 days after its public hearing, must recommend the approval or denial of the proposed amendment, or the approval of some modification of it, and submit that recommendation together with the motion, application, or resolution involved, the text and map pertaining to the proposed amendment, and the recommendation of the County Planning Commission to the Board of Township Trustees.

Board Hearing / Petition for Referendum. The Board then sets a time for a public hearing on the proposed amendment, not more than 30 days from the date of the receipt of the recommendation. Notice of the hearing shall be published once, not less than 10 days before the date of the hearing.

Within 20 days after its public hearing, the Board either adopts or denies the recommendations of the Township Zoning Commission or adopts some modification of them. If adopted, the proposed amendment becomes effective in 30 days, unless within that time, a petition for zoning referendum is submitted by registered electors in a number not less than eight percent of the number of voters in the most recent general election for governor. If a referendum is requested, the amendment does not take effect unless a majority of the vote cast on the issue is in favor of the amendment.

Within five working days after an amendment's effective date, the Board of Township Trustees must file the text and maps of the amendment in the office of the county recorder and with the County Planning Commission.

2.5 RELATIONSHIP OF TOWNSHIP ZONING AUTHORITY TO OTHER JURISDICTIONS

Generally, under O.R.C. §§ 303.22 and 519.22, within a Township, the Township's zoning regulations take precedence over the county's rural zoning plan.¹⁹ Such is the case in Bainbridge Township. Similarly, the general rule is that under O.R.C. § 519.18, the Township regulations do not apply within incorporated areas of the Township (except on a temporary basis while a newly incorporated area is organizing).

In many areas of the country, floodplain management and flood damage prevention ordinances are combined with zoning ordinances. Although Section 1521.18, Ohio Revised Code, appears to allocate floodplain management responsibilities to Cities and Counties (and not Townships), an obscure reference in O.R.C. § 505.75 provides that the Township board "may adopt regulations that are necessary for participation

¹⁹ The general rule does not apply if: (1) the county's zoning was in place first or (2) a majority of the township voters vote for the county's zoning plan. Even if the county's zoning applies, under ORC § 303.25, county zoning can be repealed within the Township by the board of county commissioners on the county commission's own motion or if a majority of the voters in the township vote to repeal the county's zoning in the area of the township.

in the national flood insurance program and that do not conflict with the residential and nonresidential building codes, governing the prohibition, location, erection, construction, or floodproofing of new buildings or structures, or substantial improvements to existing buildings or structures, in unincorporated territory within flood hazard areas identified under the 'Flood Disaster Protection Act of 1973,' 87 Stat. 975, 42 U.S.C.A. 4002, as amended, including, but not limited to, residential, commercial, or industrial buildings or structures." It would appear that it is up to the Township as to whether to defer to County regulations on floodplain management and flood damage prevention, or to develop and administer its own. Since floodplain regulations are based on model templates that meet FEMA requirements, the decision has two strategic considerations:

1. Is the County's freeboard requirement (the height of the finished floor above the base flood elevation) high enough to protect health and safety in Bainbridge Township?
2. Does the Township want to commit resources to hire (or train) a floodplain administrator to administer the floodplain management regulations?

PART III

Policies and Directions

AUGUST 24, 2012



3.1 Introduction and Context

The Ohio Revised Code sets out the purposes and permissible interests by which the Township may regulate the use and development of land. These purposes and interests provide the boundaries within which the amendment to the Zoning Resolution will be shaped. The Ohio Revised Code includes the requirement that the key parts of the Township Zoning Resolution be “in accordance with” a comprehensive plan. For the purposes of policy direction and statutory compliance, the “comprehensive plan” is the 2006 Land Use Plan.

A major basis for the “comprehensive plan” is a land capability analysis, which evaluates the landscape for its development potential. The “composite capability analysis” on page IV-63 of the Land Use Plan shows that 96.7 percent of the land area of the Township has “severe” or “very severe” development constraints. This takes into account soil characteristics, hydrology, and other factors. See Chapter 4, *2006 Land Use Plan*.

The upshot of the comprehensive plan is that a low-density development pattern is protective of the public health and safety. Put simply, the landscape cannot reasonably accommodate large numbers of people and the construction, transportation networks, and other infrastructure that would be needed to serve them.

As to implementing the policy direction of the Land Use Plan, there are flexible zoning tools which help to avoid, minimize and mitigate the impacts of new development on natural resources, while providing sufficient flexibility to developers to earn a reasonable return on their investments. Accordingly, the direction of the comprehensive plan, as viewed through the lens of the limited authority conferred by the zoning enabling statute, can be implemented in ways that enhance the flexibility of landowners when compared to more traditional (“Euclidean”) approaches to zoning.

This assessment recommends that the Township implement its comprehensive plan using a

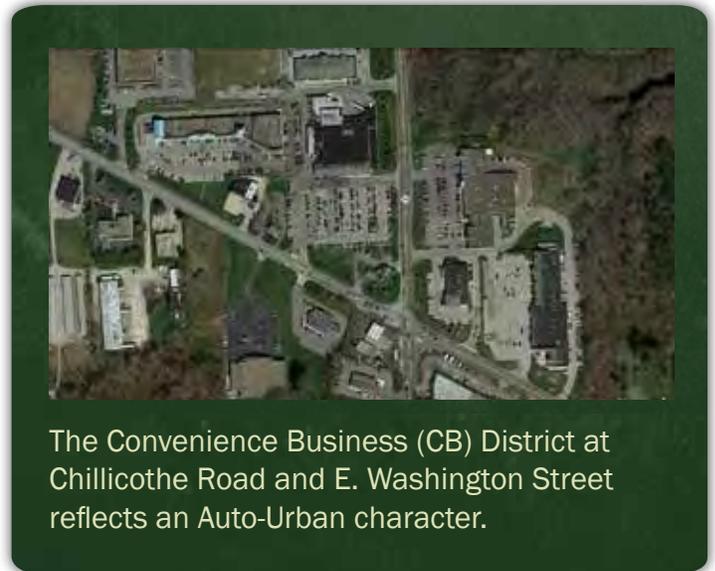
community character based approach, which provides the flexibility of multiple approaches to site development, based on the characteristics of the land. The character-based approach uses authorized techniques and has a clear nexus between regulatory requirements, “public health and safety,” and other permissible interests.

3.1.1 What is Community Character?

To understand how a community character based system works, it is important to come to a common understanding about what the phrase “community character” means in a regulatory context.

The term “character” is used throughout the current Zoning Resolution. It is referred to in the purpose statement of the regulations and as a criterion regarding whether a variance for conditional and accessory uses is warranted. Not surprisingly, the phrase often means different things to different people.

In the context of the current regulations, character is generally associated with the size of lot (hence, three- and five-acre zoning districts with different “character”). As used in this Assessment, community character relates to more than use and density. Instead, it includes the specific layout and design of individual uses, sites, districts and neighborhoods recognizing that the same use may be designed to reflect different types of character. Community character is formed by the pattern, spacing, arrangement and relationships among and between buildings and the presence or absence, scale, and use of open space and environmental resources. Put another way, in general terms community character is the perceived (visual) relationship among the natural landscape (resource features and open space), the built environment (buildings and structures), and impervious surfaces at ground level (driveways and parking lots). See **Figure 3.1, Variations of Character**.



Communities like nearby Solon and Aurora tend to follow a “rural to urban” community character continuum, with a majority of newer development falling into a “semi-urban” (or in the case of nonresidential use, “auto-urban”) category — characterized by the prevalence of impervious surfaces that serve motor vehicles (streets, driveways, parking lots, loading areas, etc.). Communities like Bainbridge Township, though, by reason of the natural environment and the sensitivity of its resources, are mostly rural to suburban in character, with nonresidential districts which are auto-urban in character due to the prevalence of paved areas necessary to serve motor vehicles (in particular, parking lots) (see inset above).

3.1.2 What is Rural Character?

Rural character is a type of community character that is characterized by “green” areas (e.g., farms, forests, plains, prairies, wilderness) which are visually dominant to the point that they may appear infinite. Such areas may include unbuilt natural and agricultural environments, or places which are primarily unoccupied by buildings and paved areas, but still interspersed with low-scale buildings on small acreages or clustered lots and buildings nestled within the landscape.

In such places, the built environment is visually

Figure 3.1, Variations of Character



These images exhibit a difference in character along a roadway frontage by way of the building setback (depth of front yard) and the preserved natural landscape along the road. The top image reflects a rural character while the lower image reflects a suburban character. This is not due to lot size per se, but is by way of the degree to which the homes are visible.

subordinate and relegated to the background. Functionally, the land is largely free from impervious surfaces and buildings.

Within large areas that have generally rural character, there may be smaller areas with different character traits. That is, a predominately rural Township may include suburban neighborhoods or commercial areas (in appropriate locations). Overall, rural character is maintained if the natural landscape / rural streetscape is maintained. In fact, this is the

current condition of Bainbridge Township, where there are areas of different character within a largely rural character context (see **Map 3.1, Existing Development Character**).

The upshot regarding character is that a largely public health and safety-based CZR (with other interests advanced only as permissible by statute) may be used preserve an overall rural character while accommodating different development and character types at smaller scales in sensitive, well-

designed, and well-planned manners (see **Figure 3.2, Different Character Types in Bainbridge Township**, which includes photographs depicting different character types within the Township). That is because rural character provides a solid framework for addressing the natural resource constraints set out in the comprehensive plan.

3.1.3 The Role of Scale in Determining Character

Originally, zoning was intended to separate uses of land to “protect” single-family homes from other uses. At that time (and for many years thereafter), land use was a reasonable proxy for community impacts. By way of example, in the 1940s and 1950s, most housing was relatively small (by today’s standards), and supermarkets averaged about 7,000 square feet. By contrast, today, the size of new homes frequently exceeds 2,000 square feet (often reaching sizes of 4,000 square feet to much, much more). Retail has also changed, with supermarkets typically sizing in at 60,000 square feet or more, and national discount retailers (e.g., Wal-Mart, Target, etc.) building superstores with groceries and general retail items offered in a “big box” sized at more than 120,000 square feet.

It is because of these changing land use trends that “use,” alone has become a poor proxy for impact. Changes in scale have resulted in changes in traffic volumes and patterns, truck patterns, noise, dust, stormwater runoff, lighting, and other external impacts. Put simply, “use” has become an increasingly blunt instrument for determining whether a nonresidential use will be compatible with nearby residential development, in large measure because it is not well correlated to scale (e.g., height, bulk, number of stories, size). It follows that as detailed use lists decline in significance as a proxy for regulating impacts, scale increases in importance.

Scale of buildings and structures (particularly nonresidential ones) ought to be addressed in a more specific way than use. It is an important variable of the character-based approach to zoning because

it relates to impacts on resources, transportation networks, and neighbors as well as it addresses the relative dominance of buildings in the visual landscape.

3.1.4 What is the Character of Bainbridge?

The vocabulary of community character is important, because most initial discussions of it uncover a range of individual ideas and expectations as to how it is defined. In order to promote a shared understanding and vocabulary, included in this Assessment is an analysis of the existing character types across the Township. (See **Map 3.1, Existing Development Character**)

Kendig Keast Collaborative performed a GIS-based analysis of each of the Township’s developed subdivisions in order to determine minimum, maximum, and average lot sizes; percent open space; and gross and net densities of development.¹ As detailed in **Table 3.1, Analysis of Existing Character**, the residential areas within the Township span the rural, suburban, and semi-urban character types, which are further described below.

Rural Character in Bainbridge Township

Many of the residential developments within the Township exhibit rural character. These are generally subdivisions with a gross density of 0.33 units per acre or less (generally, one or fewer units per three acres). By way of example, the Stockton neighborhood has an overall gross density of 0.17 units per acre and no common open space. Since it has no common open space, its net density (net density is the density of the area of the project that is not set aside as open space) is the same as its gross density. It has a rural character because it is dominated by “green” open space which is located on individual lots (its average lot size of 5.87 acres).

1 The analysis was undertaken using the mapping and data provided by Geauga County. This analysis and its results are for the purpose of depicting the relative similarities and differences between individual subdivisions and particularly how they relate (or don’t relate) to the current zoning.

Figure 3.2, Different Character Types in Bainbridge Township



Natural



Rural



Suburban



Semi-Urban

Currently, there are several different character types in Bainbridge Township, including but not limited to the following: natural, rural, suburban, and semi-urban. Generally, community character can be defined on a continuum from rural (where the predominant visual element is vegetation and natural resources) to urban (where the predominate visual element is buildings). In between rural and urban is suburban (a balance of buildings and the landscape), and semi-urban (a balance of buildings and paved areas).

Source: Kendig Keast Collaborative

The Stoneridge of Geauga neighborhood is also of a rural character with a comparable gross density of 0.16 units per acre. However, 81 percent of Stoneridge of Geauga is common open space. Because of the large percentage of open space, Stoneridge of Geauga has a higher “net density” of 1.02 units per acre (compared to 0.17 in Stockton)

and a smaller average lot size of 0.98 units per acre (versus 5.87 acres in Stockton). Stoneridge of Geauga, with its smaller lots, is still rural in character because of its large open spaces which are visually and functionally “borrowed” by the private lot owners. The development also provides the advantage of common maintenance of large areas of landscape.

Overall, the neighborhoods in the Township which were identified as “rural” in character have an average lot size of 3.92 acres, average gross density of 0.22 units per acre, an average net density of 0.34 units per acre, and 22.3 percent common open space.

Suburban Character

There are also many existing developments in the Township that have a suburban character. Most of them have a gross density greater than 0.33 units per acre but less than or equal to 1.00 unit per acre (one to three acres per unit). The Brayton Trail neighborhood is an example of a development that exhibits suburban character with a gross density of 0.43 units per acre and no common open space. Since it has no open space, its gross density and net density are the same.

Millbrook Estates has a comparable gross density of 0.45 units per acre. Yet Millbrook Estates has more than 26 percent common open space, resulting in a net density of 0.61 units per acre. Consequently, private lots are smaller, with an average size of 1.56 acres (versus 2.35 acres in Brayton Trail). Overall, the suburban neighborhoods in Bainbridge Township have an average lot size of 1.70 acre, average gross and net densities of 0.55 and 0.66 units per acre, respectively, and 10.8 percent open space.

Semi-Urban Character

Even though the predominate character of the Township is rural (37.80 percent) and suburban (52.07 percent), there are several areas that exhibit a more intense, “semi-urban” character. Typically, these are subdivisions with a gross density of greater than one unit per acre. Some of the higher density areas (e.g., the Church/Walker development in the far northwest corner of the Township), have a relatively high density with little or no common open space.

Fitting semi-urban character within a suburban context, Bainbrook Condos has a gross density of 4.12 units per acre, but a net density of 20.83. This because 80.2 percent of the development is protected as open space. Landscaping and tree cover help hide higher net densities and reduce their impacts on neighbors, transportation networks, and watersheds.

Another example in Bainbridge Township illustrates the importance of landscaping and tree cover to community character. Lake Lucerne could be semi-urban in character based on its density. However, due to its extensive tree cover and narrow, rural street cross-sections, the development exhibits more of a rural character, with “green” as a predominate visual and functional element. In the context of the Zoning Resolution, nature preservation and landscaping are

Table 3.2, Character of Developed Subdivisions

Developed Subdivisions	Character %
Rural	38%
Suburban	52%
Semi-Urban	10%

Source: Kendig Keast Collaborative

Table 3.3, Character of Independent Lots

Independent Lots	Character %
Rural	78%
Suburban	21%
Semi-Urban	1%

Source: Kendig Keast Collaborative

Figure 3.3, Character of Lake Lucerne



Although the average lot size is 21,540 square feet and its density is 1.34 units per acre, Lake Lucerne exhibits a rural character. This is due, in part, to the dense vegetation and heavy tree canopy, together with narrow, rural street cross-sections and homes set back from the streets with liberal front yard landscaping to balance the natural and built environments.

important components for preserving (or achieving) suburban or rural character, and the functional benefits that attend to it. (See **Figure 3.3, Character of Lake Lucerne**).

As illustrated in **Table 3.2, Character of Development Subdivisions**, the existing subdivisions in the Township are currently more suburban (52 percent) than rural (38 percent) in

character. Helping to illustrate the predominate character of existing development is an important first step for understanding what character means in Bainbridge Township. As such, it directly ties to the next step in determining how best to guide the development of the remaining undeveloped parcels.

101.02, Declaration of Purpose, Chapter 101, Purpose and Conflicts

The Board of Trustees and Zoning Commission of Bainbridge Township have, through an evaluation of development factors, anticipated future growth and basic community goals, established basic guidelines and objectives for future development in the Township. It has been determined, due to the location of the Township within the area, the natural limitations of soil and geologic conditions which affect water supply and sewage treatment, the limited capability of the Township to provide urban services, **the current character of development** within the Township, and the expressed objective of the residents of the community, that Bainbridge Township shall be essentially a low density residential community, with nonresidential development generally limited to that necessary for the convenience of residents. It has been further determined that a major asset to the community is the natural rural quality of the landscape, and that this quality, insofar as possible, should be preserved. To achieve these basic objectives, in the interest of the public health, safety, convenience, comfort, prosperity, or general welfare, to insure the preservation of open space, adequate light and air, freedom from congestion and objectionable or noxious uses, and to provide for the orderly and efficient growth of the community, the Board of Trustees of Bainbridge Township deems it necessary, in accordance with the provisions of Ohio R. C, Chapter 519, to regulate the use of land, the size and location of buildings, yards and open space and other characteristics of future development within the Township, and hereby adopts and enacts the following Resolution which shall be in force and effect within the unincorporated territory of Bainbridge Township. The Board of Trustees of Bainbridge Township intends to exercise all zoning and planning powers now or hereafter conferred by the Ohio General Assembly and has enacted this Zoning Resolution to be consistent with and to implement the Bainbridge Township Guide Plan for Land Development, 2000. [Adopted 6/1/2009 - Z-2009-1].

Independent Lots

An analysis of individual parcel owners (*i.e.*, individual residential parcels that are not part of a developed subdivision) was also conducted to determine how they relate to the overall character of the Township.

As exhibited in **Table 3.3, Character of Independent Lots**, the overall character of the independent lots contributes to the Township's rural character. This is so as 78 percent are rural while 21 percent are suburban, and one percent is semi-urban in character.

As exhibited in **Figure 3.4, Land Use, Zoning, and Development Character**, using land use and density as the basis (or driving factors) of the regulations may result in significantly different outcomes, which may or may not be of the same character. This is the case throughout Bainbridge Township. For this reason, this Assessment suggests

that an alternative approach is warranted. A district structure that builds on the basis of land use and density but includes consideration of other variables that better relate to the character of development would address the expressed purposes of state law, while also achieving those articulated by Chapter 101, *Purpose and Conflicts* (see inset above), of the current Zoning Resolution, as well as the policies and directions expressed by the comprehensive plan.

A district structure that is based on character would differ from that of the current districts in the following ways:

1. Different development types (*e.g.*, conventional, cluster, planned unit development) may be allowed within the same district, subject to specific standards for average lot size, minimum open space, and maximum gross density. Essentially, the options would offer increased flexibility to better accommodate the inherent limitations of

Figure 3.4, Land Use, Zoning, and Development Character



Living Homes



Woods of Wembley

The above developments are both within the R-3A, Rural Residential District. However, Living Homes is Semi-Urban in character by reason of its average lot size of 22,734 sf., 23.5% open space, and a density of 1.43 units per acre. Comparatively, The Woods of Wembley is Rural in character due to an average lot size of 1.21 acres, 60.9% open space, and a density of 0.32 units per acre.

Table 3.4, Illustrative District Structure

District and Development Type	Lot Area (average)	Open Space Ratio (delineated space)	Gross Density (units/acre)	Minimum Site Area
<i>Rural</i>				
Equestrian	5 acres	0.20	0.14	60 acres
Single-Family	3 acres	0.10	0.26	50 acres
Cluster	1.5 acres	0.40	0.32	25 acres
Conservation	20,000 s.f.	0.60	0.58	50 acres

Source: Kendig Keast Collaborative

Note: This table is used for illustrative purposes only. It is not intended for application in Bainbridge Township.

the land and its resources, while respecting and helping to achieve other Township objectives.

- Each of the development options in each district could be allowed by-right (rather than as a conditional use), subject to the dimensional standards and limitations spelled out in the regulations.
- The standards for each development type would be spelled out in the regulations, which would offer increased certainty and allow measurable outcomes.
- The size and amount of open space may vary in proportional relationship to lot size and density, with a modest incremental increase in density (up to a maximum density) for each additional increment of open space.
- Modest density bonuses could be allowed for cluster and planned unit development to allow a reasonable development yield and as incentive for protecting resources, preserving open space, and building within the site capacity limitations due to soil and geologic conditions.
- Different dwelling unit types and combinations could be allowed, with corresponding open space

requirements and density limitations.

- Setbacks and building coverage would vary in accordance with development and housing type.

3.2 Districts

The existing Zoning Resolution has eight conventional zoning districts. They are Rural Open Residential (R-5A); Rural Residential (R-3A), Active Public Park (APP), Professional Office (PO), Passive Public Park (PPP), Convenience Business (CB), Commercial Recreation (CR), which is essentially a district for Cedar Fair and surrounding properties, and Light Industrial (LIR).

Because of the nuanced regulatory environment that exists for Ohio townships, it is premature to lay out the organization and structure of new districts. Rather, as the project team progresses in its understanding of the Township and its environment, together with the permissible interests of law, the proposed districts and their associated performance measures will be detailed prior to drafting the regulatory language. With this being said, there are a few key considerations that warrant consideration in the redrafting of the CZR, as provided below.

3.2.1 Flexible Districts

As detailed earlier, land use, density, and lot size (specifically the minimums of three- and five-acre lots) are among but not the only considerations in structuring the residential districts in the CZR. Moreover, strict reliance on minimum lot size leads to an expectation for a certain number of lots because the Zoning Resolution indicates a development yield of three or five units per acre. Unfortunately, the full yield is oftentimes not achievable because many sites are constrained by steep slopes or other natural resource limitations. Rather than having sufficient flexibility to work around these site constraints, a reliance on minimum lot size forces developers to recover the lost yield by developing areas of the property that may not be appropriate for development. Although the current Zoning Resolution allows for cluster development, as the R-3A district is currently configured, there may be limited incentive for choosing this option.

In order to ensure the Township achieves its objectives — both those provided for by law and, within those constraints, the Township’s plans — it is proposed that the CZR would include restructured residential districts, designed to be more flexible. This means that the regulatory language would provide incentives for “good development,” which has a quality and character that fits into Township’s inherently resource-limited context (e.g., open space for drainage, groundwater recharge, and recreation, preservation of existing trees and native habitats, and so forth). Such development would also tend to “fit” into the established community character, in which natural resources are a dominant element.

By way of example, (**Table 3.4, Illustrative District Structure**), shows how regulating lot size, gross density, and percent open space may allow for multiple development options (e.g., standard vs. conservation or planned development) while maintaining economically reasonable gross densities. As illustrated, given lot sizes ranging from five acres to

as little as 12,000 square feet (in this example from another rural jurisdiction) and increasing open space from 20 percent to 70 percent, the rural character is maintained while accommodating other development types. In these models, the open space provisions allow for better stewardship of large areas of natural resources.

By providing the flexibility to reach a reasonable development yield for projects that are also protective of natural resources (by providing a common ownership vehicle to manage them), the CZR may create a win-win scenario for the Township and those who may ultimately develop the remaining tracts. The Township benefits with “good development,” and the developer gets the return on investment that makes the project work.

3.2.2 Existing Neighborhoods

All residential development in the Township is zoned R-3A, Rural Residential District or R-5A, Rural Open Residential District. These districts provide for minimum lot sizes of three- and five-acres, respectively. The only exception is for cluster development within the R-5A District, which provides that “the maximum density on any single area in the cluster development shall not exceed three (3) units per acre.” Also, in the R-3A District, “the maximum density on any single acre in the cluster development shall not exceed three (3) units per acre.”

Map 3.2, Nonconforming Lots in the R-3A District and **Map 3.3, Nonconforming Lots in the R-5A District**, shows that a large percentage of the individual lots in each district are less than the minimum required lot size, and also in developed subdivisions that do not meet the minimum required densities within their respective zoning districts. These lots have become “legally nonconforming” lots, which may require variances to accommodate many desirable changes on the property. Given the significant number of potentially nonconforming lots across the Township, regulatory reform is warranted.

It is expected that the structure of districts that is designed for new development (the more sizeable tracts remaining to be developed) will not be a “good fit” for what is already developed. Indeed,

the new districts will likely not resolve and in fact, could deepen the extent of nonconformity of existing development. Therefore, for areas of existing residential development, this Assessment

Table 3.5, Example of General Use Consolidation

Detailed Use	Proposed General Use Category
Any medical office, including general medical, dental, or any specialized medical practice, where treatment is provided by, or under the district supervision of, a doctor licensed by the State of Ohio	General Professional/Medical Office (means office space used by physicians, pediatricians, radiologists, dentists, chiropractors, physical therapists, acupuncturists, and other health care professionals for the examination and/or treatment of patients on an outpatient basis, with no overnight stays by patients).
Clinical Psychologist Office	
Doctors of Psychology Office	
Psychoanalyst Office	
Psychologist Office	
Psychotherapist Office	
Endodontist Office	
Orthodontist Office and Periodontist Office	
Chiropractor Office	
Hearing Testing Services, Occupational Therapist Office, Speech Pathologist Office and Voice Pathologist Office	
Doctors of Podiatry	
Biofeedback Centers and Clinics, Infusion Therapy Centers and Clinics, Pain Therapy Centers and Clinics and Sleep Disorder Centers and Clinics on an out-patient or client for diagnostic purposes	
Blood pressure Screening Facilities, Health Screening	
Services, and Pacemaker Monitoring Services	
Acupuncturists	
Dietician’s Office for Individualized Counseling	
Licensed Practical Nurses Office and Registered Nurses Office	
Implementation of Medical Treatment by Individuals Licensed by a Federal or State Governmental Agency Where any Sale and Studio Visits are by Appointment Only	

recommends a “Existing Neighborhood” (“EN”) District created.

The EN District would include sub-districts that better reflect what exists on the ground. In other words, the lot sizes and dimensions would be adjusted as would other applicable standards. The purpose of the EN District is to make all existing lots conforming, excluding those that were not constructed in compliance with the regulations at the time of construction, those constructed without permits or in violation of the permit requirements. Further, alternative standards (setbacks, building cover, etc.) would be spelled out in the CZR to allow changes on the properties by way of administrative review, provided that there is a demonstration of compliance with the stated standards. This approach would resolve most residential nonconformities and allow for reinvestment without unnecessary process.

3.2.3 Planned Unit Development (“PUD”)

Part II, *Legal Framework*, points out that townships are authorized to include planned unit development (PUD) regulations in their zoning resolutions. Although it is allowed, the Township has no provisions for this development type in its Zoning Resolution. Since the PUD approval establishes the standards for development, which are approved or disapproved by either the Board of Trustees or, if the Board chooses, the Zoning Commission, they supplant the standards of the base districts in the Zoning Resolution. For this reason, it appears that the inclusion of PUD provisions in the CZR merit strong consideration.

Historically, PUDs were an outgrowth of an effort in the 1960’s to promote more flexible design by clustering, allowing smaller lots in return for significant areas of open space for recreation, resource protection, and amenities in the development. In normal clustering, the homes were still single-family detached, just on smaller lots. PUDs expanded the range of housing types and permitted mixed-use developments. The PUD process was a means that local government used to allow the developer and community to

negotiate a superior cluster type development, which had not been done before.

Nationally, there is now more than a half-century of experience with PUDs. In sum, some are done well, a significant number are done poorly, and the most are average in quality. PUDs tend to add time and cost to development approval procedures, but are used anyway because the alternative is often a zoning resolution or ordinance which does not “work.” In many places the prescription is simply to fix the zoning ordinance and leave PUDs out.

However, in Ohio, PUDs allow for greater flexibility than standard zoning districts in terms of the purposes for which they may be put. They offer the ability for the landowner and the Township to come to agreement about elements of quality and character which are off-limits under conventional zones. That is probably because PUD zoning is not applied to landowners without their consent.

The Achilles heel of PUDs is that all too common the process is essentially open-ended. That is, there are usually few (or no) substantive standards for PUDs in the zoning resolution, leaving all of the substantive standards to be determined through negotiation. That means that there is little consistency of outcomes.

An open-ended process should be avoided for many reasons; among them is the inherent uncertainty of the process and, most importantly, the lack of predictability as to the development outcomes. These are important for the Township and its developers as both strive for increased certainty, predictability, and an efficient, timely process.

As exhibited above in **Table 3.4, Illustrative District Structure**, an approach that warrants research and consideration is to make planned unit development an option in one or more zoning districts. With the districts based on character, which will be derived based on the capacity of land to support development, the character outcomes would be known. The densities, open spaces, and

dimensional standards for PUDs could be established for the applicable district(s), with sufficient flexibility to honor the purposes of the PUD authorization.

Since the statutory mandate of PUDs is to promote “the general public welfare, encourage the efficient use of land and resources, promote greater efficiency in providing public and utility services, and encourage innovation in the planning and building of all types of development,” this approach offers the Township a higher degree of regulatory review and authority in instances where landowners opt for PUD approvals. For this reason, the Township may consider a modest density bonus as an incentive for planned development, provided that the level of risk to public health and safety associated with the bonus is within acceptable bounds, and managed by location, infrastructure, and design factors. In other words, the desire to use the PUD tool cannot undermine the public health and safety rationale for the other residential zoning districts.

3.2.4 Uses and Use Types

In the context of community character, and more generally, in the context of the shifting relationship between use and scale, the total number of uses that are enumerated in the existing Zoning Resolution is more than is needed. For example, the Professional Office (P-O) District has 44 entries in its permitted use list. Making matters more complicated, the regulations state that “only the following uses shall be permitted.”

This means that a use that may be a subcategory of, or that is functionally similar to, a permitted use may not be permitted. Instead, it is recommended that all permitted, non-permitted, conditional, and major accessory uses be consolidated into a series of use tables that are organized into the following general use categories:

- Residential Uses
- Institutional, Recreation, and Amusement Uses

- Commercial Uses
- Agriculture, Industry, Utility, and Communication Uses
- Transportation, Logistics, and Storage Uses
- Business Use of the Home

It is common for permitted or non-permitted use lists to expand as new development types are proposed. However, this typically requires a formal text amendment and most often results in lengthy, increasingly unmanageable lists over time. A common approach to solve this is to use general use categories. Under this approach, broader categories of uses are established that are interpreted to include more detailed uses. This simplifies the presentation of permitted uses and allows new uses to be interpreted as part of a general use category. It also prevents “micromanagement” of uses where more flexibility is not detrimental to public health and safety (or where permissible, public comfort and convenience or Township character). Still, detailed uses can be called out as specifically permitted or non-permitted to avoid conflicts based on interpretation. Common examples of these include adult entertainment as retail uses, tattoo parlors, or taverns.

An example of consolidating detailed uses into a general use category is seen in **Table 3.5, Example of General Use Consolidation**.

The current use structure identifies uses as permitted, non-permitted, or conditional. If a use is deemed conditional, it may be allowed on a case-by-case basis pending public hearing review of the Board of Zoning Appeals (BZA). It is recommended that many uses which are currently “conditional uses” be changed to permitted uses with some additional administrative standards. In other words, uses with slightly elevated potential impacts could be managed using a few additional use-specific standards which are administratively applied through a zoning certificate process. Examples include:

Conditional Use in R-5A (under current resolution)

- Residential care facilities
- Cemeteries
- Adult family home (protected by ORC 5119.72(A))
- Adult group home (protected by ORC 5119.72(A))
- Tennis club (now provided in Section 135.05), standards already established
- Residential care facilities (now provided in Section 135.06), standards already established
- Nursing homes (now provided in Section 135.07), standards already established

Conditional Use in P-O

- Child day-care center, as licensed by the State
- Daycare centers for adults, same as Adult Group Home in R-5A (protected by ORC 5119.72(A))

Chapter 153

- Farm Markets

3.2.5 District Transitioning and Compatibility

Section 519.02 of the Ohio Revised Statutes provides that the Board of Trustees may regulate “reasonable landscaping standards.” Currently, landscaping requirements are established for specific use types (child day care centers, public and private schools, residential care facilities, nursing homes, and wireless telecommunications towers and facilities) and for certain districts (P-O, CB, CR, and LIR), which are generally different in each application. It is therefore, proposed that landscaping be addressed in a chapter of the CZR on development standards for which the standards would be more consistently applied, as well as more specific and clearly written.

Similar to the landscaping standards, there are provisions for screening and buffering that again, apply to certain uses and districts. Generally, when adjacent to a residential district these requirements

provide for a 10-foot high landscaped earthen mound, fencing, or walls as determined by the BZA, together with a 20-year growth landscaping plan. In the P-O District, the screening requirements are broadly descriptive indicating, “a strip of land densely planted with shrubs or trees must be maintained along such boundary line, so as to form a year-around dense visual screen.”

This Assessment recommends that within the landscaping requirements should be provisions for bufferyards between all district boundaries and, in some cases (e.g., mixed use developments, conditional uses, certain permitted uses, etc.) within an individual district at the boundaries of development. Generally, the bufferyard treatments should be commensurate with the intensity of the adjacent development.

In other words, a buffer treatment separating residential from industrial uses should be wider and with greater opacity than that for commercial, institutional, and higher density residential uses. These standards may either be descriptive (x width and y number of deciduous and evergreen trees and shrubs per linear foot) or flexible. A flexible approach is based on a measure of relative opacity wherein different combinations of buffer widths, plant types and densities, landforms (earthen berms), and fences or walls may be used to meet a required standard. This is often preferable for developers so they can meet the standard with a buffer that is best suited for their property. From the Township’s perspective, it may also be preferable so as to encourage a variety of treatments as means for avoiding monotony.

Lastly, given the amount of natural areas and vegetation in the Township, a significant means for providing screening and buffering between districts and uses is the preservation of existing tree stands. The flexible districts described above would provide means for achieving a reasonable development yield while setting aside sufficient land for open space, drainage, resource protection, and buffering.²

2 This Assessment assumes that since statute allows

3.2.6 Building Design

Part II, *Legal Context* points out that Section 519.02 of the Ohio Revised Code provides that the Township may establish architectural standards, excluding exterior building materials. Currently, the Zoning Resolution has no provisions that regulate the form, scale, and general design of buildings. Therefore, among the considerations for the CZR will be the extent to which the design of buildings is regulated. These may include, among other things:

1. Form. A building's form, with respect to massing, height, roof type and pitch, direction of gables, presence of dormers, articulation of building walls, locations of windows and other openings, architectural ornamentation and detailing should be designed so as to reflect a quality aesthetic.
2. Setbacks and Orientation. New buildings should be oriented to the road and other structures to signify their point(s) of entry, to create interesting spaces, and to complement the site and its environs.
3. Scale. In keeping with the context of their environment, new buildings should be considered as a composition or grouping of smaller structures, rather than a single large structure that may impose on the buildings around it.
4. Building Color. While the statute excludes the regulation of building materials, it does not preclude a palette of building colors. This assessment does not recommend regulating building color; it simply has not identified a legal barrier to the Zoning Resolution addressing it if the community so chooses.

3.3 Environmental Stewardship

The Land Use Plan acknowledges that “the existing and potential impact of development on the environment is a significant planning issue. More specifically, the protection of environmental quality is

“reasonable landscaping standards” that it would also allow the preservation of existing landscaping by necessary implication.

particularly warranted where on-site septic systems and water wells are utilized. The possible adverse impacts of development on the environment may be minimized if the ability of the land to support it is carefully considered.” The balance of the plan documents the nature and significance of the Township's environmental resources in the context of the capability of the land to support development.

Part II, *Legal Context* points out that the regulation of land and development is largely predicated on health and safety interests, with the permissible interests of public convenience, comfort, prosperity, and general welfare generally limited to a narrow set of zoning standards and (more generally) to nonresidential properties. Given this authority and limitation, the significance of the natural environment and the regulatory means to protect it in the interests of health and safety are underlying premises of the CZR.

The existing character analysis reflected in **Map 3.1, Existing Development Character**, identifies the undeveloped parcels across the Township that are greater than three acres in size and not in conservation easements. These parcels are outlined as they are the few remaining tracts with a potential to develop. Therefore, the environmental resources on these parcels are directly relevant to their development and the means by which the public health and safety is protected. Displayed in **Map 3.4, Environmental Resources** is a composite of these resources, including the mapping of FEMA flood zones, wetlands and water bodies, steep slopes, and areas of severe and very severe soil capability for septic tank absorption fields.³

While the Township does not have the authority to approve subdivision plats, Geauga County may (and does) require compliance with Township zoning as a condition of plat approval. Therefore, similar to the provisions of Chapter 160, *Establishment of Riparian Setbacks*, other standards and requirements may be

3 The source of this data is from the Bainbridge Township Land Use Plan (2006).

developed as part of the CZR. Their applicability and the means of implementation (and enforcement) will be researched with regulatory provisions incorporated as warranted.

3.3.1 Resource Stewardship and Environmental Quality

A chapter of the CZR on Resource Stewardship and Environmental Quality would be for the purpose of promoting and protecting the public health and safety of the Township in the following ways:

- Protecting, and preserving in a generally natural state, resources that:
 - Reduce run-off;
 - Increase groundwater recharge;
 - Sequester carbon;
 - Provide or protect wildlife habitats;
 - Protect or enhance water and air quality; and
 - Mitigate heat island effects.
- Allowing reasonable use of open space and protected resources.
- Safeguarding the Township's potable water supply against contamination from existing and future potential contamination sources.

Among the considerations for inclusion in the CZR are resource protection incentives and flexibility, which have been discussed in the context of clustering and planned unit development. This is advisable as the construction of buildings, parking, or other uses in areas that are not suited for such development can create hazards to life and property. These threats may be on-site or off-site, and may include impacts such as air, groundwater, and/or surface water pollution.

The continued use of conservation development and new provisions for planned unit development (PUD) would provide means by which resource protection may be accomplished while minimizing adverse

impacts on the development potential of a parcel. By using conservation or planned unit development options, the developer can create a land development plan that protects resources by building on the unprotected areas, while maintaining a reasonable gross density.

Natural resources may be protected by leaving a portion of a site occupied by a resource undisturbed and designating it as open space in residential developments or as undisturbed landscape surfaces in nonresidential developments. Some uses (or facilities) may be permitted in these open space areas (e.g., agriculture, nursery, recreation uses, detention and flood control, etc.).

Essentially, the CZR could establish a minimum amount of each area of natural resources that must be set aside as protected open space, which may include water bodies, riparian buffers, floodways and floodplains, wetlands, woodlands, steep slopes, and wellhead sanitary setback areas. Setting aside these resources protects public health and safety for a variety of reasons, not the least of which is the contribution that many of them lend to water quality and safety from flooding.

3.3.2 Floodplain Management

Despite their vulnerability, floodplains have frequently been used for settlement, roads, industry, and agriculture. Indeed, it is because annual flooding deposits a fresh layer of nutrient-rich sediment from lands upstream, that people are willing to risk losses in order to cultivate and irrigate agricultural crops, and in some instances live in floodplains and flood prone areas. Construction in floodplains endangers life and property and also increases the severity of floods by reducing the land's ability to store and buffer floodwaters. Removing vegetation and paving permeable soils in floodplains destroys wildlife habitat, increases runoff, and results in intensified flooding downstream⁴.

4 Stokes, et al, 1994, p. 27

There are currently no provisions within the Zoning Resolution that address development within a 100-year floodplain. Provisions to be considered include:

- Restricting or prohibiting uses that are dangerous to health, safety, and property due to flood water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- Requiring that development that is vulnerable to floods be protected against flood damage at the time of initial construction;
- Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- Controlling, filling, grading, dredging, and other development which may increase flood damage;
- Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas;
- Preventing all new construction or installation of residential or non-residential structures in any special flood hazard area;
- Restricting encroachments, including fill, new construction, substantial improvements, and other development in any floodway unless a technical evaluation demonstrates that the encroachments will not result in a net increase in flood levels during the occurrence of the base flood;
- Requiring a minimum clearance, or freeboard, be provided between the 100-year base flood elevation and structures and other applicable facilities which may be impacted by the base flood; and
- Preserving significant trees for the reduction of noise and air pollution, wind protection, animal

habitat, slope stabilization and retention of ground water.

In some cases, consideration may be given to providing protection from flooding that are produced in excess of the 100-year storm event. Consideration should be given to a higher level of protection for critical facilities and access routes that are critical for the protection of public health and safety, or where flooding in excess of the 100-year storm could result in loss of life, significant damage to utilities and infrastructure, or result in hazardous materials being transported in flood waters. In general, placement of critical facilities within the floodplain should be discouraged.

3.3.3 Site Capacity Requirements

An approach that appears appropriate and warranted in the Township is a site capacity requirement. The site capacity requirements “fingerprints” a parcel proposed for development to delineate its natural resources, and then provides for a determination of the development capacity of the site based on the land areas which are buildable.

This analysis is performed in concert with a rezoning or application for development approval. There may be certain cases where an application is exempt from the site capacity requirements, including those for which a site capacity was submitted for a prior, similar approval; the parcel is an existing lot of record that is not proposed for subdivision, is zoned for residential use, and is proposed for a single family home, or that does not contain any wetlands or floodplains, is zoned for nonresidential use, and is less than one acre; as well as demonstration that the parcel does not contain any natural resources.

The capacity of a site is either the yield determined by applying the gross density of the zoning district to the land area of the parcel; or, in the case of sites with significant and limiting resources, a calculated site specific yield based on the site capacity calculation requirement.

3.3.4 Resource Protection

This portion of the Assessment is intended to shed light on the considerations for regulating land and development in the interests of protecting natural resources. Conservation of the Township's natural resources calls for the foresight to manage land use and development and thereby minimizing its negative effects and securing public health and safety. Stewardship of Bainbridge Township's resources will require diligent management and a commitment to uphold its values in the context of its authorities to regulate development.

Promoting responsible development by addressing the following environmental issues will help to preserve the public health and safety of Township residents.

3.3.4.1 Protection of Natural Resources and Sensitive Lands

While it is stated in the Declaration of Purpose within Chapter 101 of the Zoning Resolution, that, "a major asset to the community is the natural rural quality of the landscape, and that this quality, insofar as possible, should be preserved," there is no mention of the preservation of the valuable natural resources that are critical for providing a healthy environment. The Comprehensive Zoning Resolution's Declaration of Purpose ought to state its intention to protect natural resources, with the following and other specific purposes identified:

- Controlling the density, open space, land use, and landscape to prevent surface water contamination;
- Protecting life and property by avoiding or lessening the hazards of flooding, stormwater accumulation, runoff, or destabilization of soils;
- Avoiding or lessening soil erosion hazards; and
- Preserving and protecting areas with limited development potential due to hydrology, soils, severe slopes, or other natural conditions.

New development should be planned and developed in ways to buffer and minimize adverse impacts of human activity on highly sensitive natural resource areas.

3.3.4.2 Riparian Corridors

To preserve water quality within the Township's streams, rivers, and water bodies, it is important to preserve the riparian corridors within which the streams flow, so as to reduce the impact of non-point source pollution runoff and erosion. Chapter 160, *Establishment of Riparian Setbacks*, sets specific setback requirements for riparian corridors and calls for developing a riparian setback map identifying designated watercourses and their riparian setbacks.

To protect riparian corridors, development should be designed to reduce the velocity and concentration of stormwater runoff. Where that is not possible, there are other methods which should be addressed, including stream and river embankment stabilization using bioengineering techniques and, where necessary, other "green" approaches.

Chapter 160 provides that stream bank stabilization projects may be permitted in a riparian setback subject to approval of a zoning certificate and in accordance with other applicable regulations. This section cites compliance with applicable conditions of a U.S. Army Corps of Engineers Section 404 Permit. Subject to federal conditions, the following bioengineering and other non-structural controls may be considered for inclusion in the CZR to restore damaged habitat and protect shoreline and stream bank erosion:

- Live staking involves the insertion and tamping of live, rootable vegetative cuttings into the ground.
- Live fascines are long bundles of branch cuttings bound together into sausage-like structures. When cut from appropriate species and properly installed, they will root and immediately begin to stabilize slopes.

- Brush layering consists of placing live branch cuttings in small benches excavated into the slope. The portions of the brush that protrude from the slope face assist in retarding runoff and reducing surface erosion.
- Brush matting involves digging a slight depression on the bank and creating a mat or mattress from woven wire or single strands of wire and live, freshly cut branches from sprouting trees or shrubs.
- Branch packing consists of alternating layers of live branch cuttings and compacted backfill to repair small localized slumps and holes in slopes.
- Joint planting involves planting live cuttings of rootable plant material into soil between the joints or open spaces in rocks that have previously been placed on a slope.
- Live cribwalls consist of a hollow, box-like interlocking arrangement of untreated log or timber members. The structure is filled with suitable backfill material and layers of live branch cuttings, which root inside the crib structure and extend into the slope.⁵

Outside of the stream banks, vegetated riparian areas control erosion by stabilizing soils and trapping sediments. They also filter pollutants, such as nitrogen, phosphorus, hydrocarbons, pesticides, metals, and other chemicals that can upset the balance of an ecosystem by affecting organism growth and limiting the availability of oxygen. Other advantages include water uptake by riparian plants, that returns water to the atmosphere through evapotranspiration, and slowing runoff, potentially reducing downstream flooding. Shade produced by overhanging vegetation moderates summer water temperatures, keeping them cooler, and reducing depletion of oxygen needed by aquatic animals.

5 California Environmental Protection Agency, State Water Resources Control Board: http://www.waterboards.ca.gov/water_issues/programs/nps/encyclopedia/5.2a_hydromod_erosion_cntrl.shtml

3.3.4.3 Surface Water and Wetlands

Though Chapter 160 references wetlands within riparian corridors and requires appropriate setbacks, it does not refer to the identification, delineation, and subsequent preservation of isolated surface water bodies, including jurisdictional Palustrine or Lacustrine wetlands, not associated with existing river and/or stream corridors identified on the Bainbridge Township Generalized Wetlands map.⁶ Ponds, lakes, and wetlands should be protected from pollution, filling, draining, and alteration of the natural supply and flow of water. Buffers should also be required for all regulated wetlands.

3.3.4.4 Aquifer Recharge Zones

In order to protect the public health and safety, provisions should be established to prevent the degradation of ground water aquifers used for potable water, and to provide for regulations that prevent and control risks to the degradation of ground water aquifers, as well as critical aquifer recharge areas. These areas are those determined to have an important recharging effect on aquifers used as a source for potable water and vulnerable to contamination from recharge.

3.3.4.5 Soils

The total area of Bainbridge Township is 16,591 acres and is comprised of 48 soil classifications, which includes both soils properties and site features. With regard to building site development, according to the Geauga County Soils Survey (p.65), approximately 18.3 percent of the land, or 2,384 acres, is generally rated as “moderate” for the construction of dwellings without basements; meaning soils properties or site features are generally not favorable for the indicated use, and special planning, design, or maintenance will be required to overcome or minimize the limitations. For the construction of dwellings with basements, 81.7 percent of the land within the Township, or 14,207 acres is rated as “severe,”

6 Map 33, Bainbridge Township Generalized Wetlands. Bainbridge Township Land Use Plan. 2006

meaning that the soils properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possible increased maintenance are required.

With regard to the construction of septic tank absorption fields, 99 percent of the soils classifications within the Township, an area of over 16,400 acres (plus or minus 1.3 percent of the soils which are not rated), are rated as very severe, which means that conditions are so unfavorable to support the intended land use that special design, significant increases in construction costs, and possible increased maintenance will be required.

A 2009 Journal of Environmental Health article⁷ reporting on failure rates of onsite sewage treatment systems within seven northeastern counties in Ohio, including Geauga County, summarized a Northeast Ohio Areawide Coordinating Agency (NOACA) 2000 report, which revealed that “between 12.7 – 19.7 percent of onsite wastewater treatment systems are allowing wastewater to surface as opposed to infiltrate (at the 95% confidence level).” The NOACA report concluded that soil unsuitability is often the primary cause of home sewage disposal system failure. The article points out that “of the 60 different soils types found in Geauga County, 95% are severely limited based on soil type, degree of slope and depth to bedrock. Only 3.3% of the soil types are rated as being moderately limited, with the remaining 1.7% classified as being only slightly limited (USDA, 1982).”

The data from the NOACA report indicates that home sewage disposal systems that were installed in severe soils have a significantly higher percentage of systems that were found to have surfacing effluent than the overall percentage of surfacing systems at the 95% confidence level (p.21). Of the 490 onsite sewage disposal systems that were inspected, 21.1 percent of the systems that were constructed on Wadsworth soil complexes, have a significantly

higher percentage of surfacing (effluent) systems. In Bainbridge Township, Wadsworth soil complexes represent 28 percent of the area, or 4,744 acres.

In short, in areas without public sewer service, development potential which is nominally available under the zoning resolution must respect the limitations inherent in the soils with respect to wastewater treatment. Cluster and planned unit development techniques may be used to maximize the use of sites which may have areas of more suitable soils.

3.3.4.6 Vegetation

In the context of environmental conservation, the following may be considered for inclusion in the CZR chapter on development standards:

1. Standards for Preserving Forested Areas

The purpose of this section is to provide standards that will optimize the preservation of structurally sound, healthy, and functional trees and forested areas; minimize the retention of high-risk tree conditions that have potential to cause personal injury or property damage; and to minimize harmful practices and conditions that can degrade the long-term health, structure, functionality, and regenerative capacity of forested areas.

2. Permit Requirements for Tree Removal

Applicable to land development or construction sites of a certain size, a clearing or removal permit may be required in conjunction with any required land use permit, engineering design permit, site development permit, binding site plan, subdivision, or building permit. A separate permit would be required for each individual site on which the tree removal or land clearing is proposed.

3. Tree Protection and Tree Fencing Standards

The regulations may provide for tree protection, fencing, and tree care standards prior to, during, and subsequent to any subdivision, development,

⁷ Mark A. Tumeo, PhD, JD, PE and Juliet Newland, MS, PE, 2009, “Survey of the Home Disposal Systems in Northeast Ohio,” Journal of Environmental Health, pp. 17-22.

redevelopment, construction, tree clearing, or tree replacement as part of the conditions of any permit on land of a certain size.

4. Heritage Tree Preservation

The regulations may include provisions requiring the preservation of large, and/or specimen trees. Large trees would be considered critical resources. Among their notable contributions are direct carbon sequestration, air and water filtration, detention of stormwater, and reduction of the energy required to cool buildings. The existing Zoning Resolution does not currently provide for tree preservation.

5. Tree Replacement Standard

The regulations may require that any tree of a certain caliper that is removed or damaged during construction must be replaced with an equivalent amount of tree caliper (e.g., remove a 24-diameter tree/replace with 6 four-inch diameter trees).

3.3.4.7 Preserving the Streetscape

As noted in **Figure 3.1, Variations of Character**, the Township's roads help to define its character. Most roads are narrow and bordered by vegetation, fences, and rock walls. They typically follow alignments in response to the natural topography and geography of the area. Designs for new roads or alterations of existing roads should keep their physical impact on the natural environment to a minimum. Extensive cutting through wooded areas in order to provide wide shoulders, or planting along road edges in open areas alters the landscape and hence, drainage patterns that may affect the abutting properties. Further, this vegetation also forces drifting snow to accumulate where it is not dangerous so as to minimize the amount of snowdrift on roadways.

3.3.4.8 Buffers along Roadway Corridors

Vegetated buffers provide numerous benefits, including pollution abatement, erosion and sediment restraint, water storage, temperature control, and, incidentally, aesthetic appeal.

3.3.5 Responsible Development

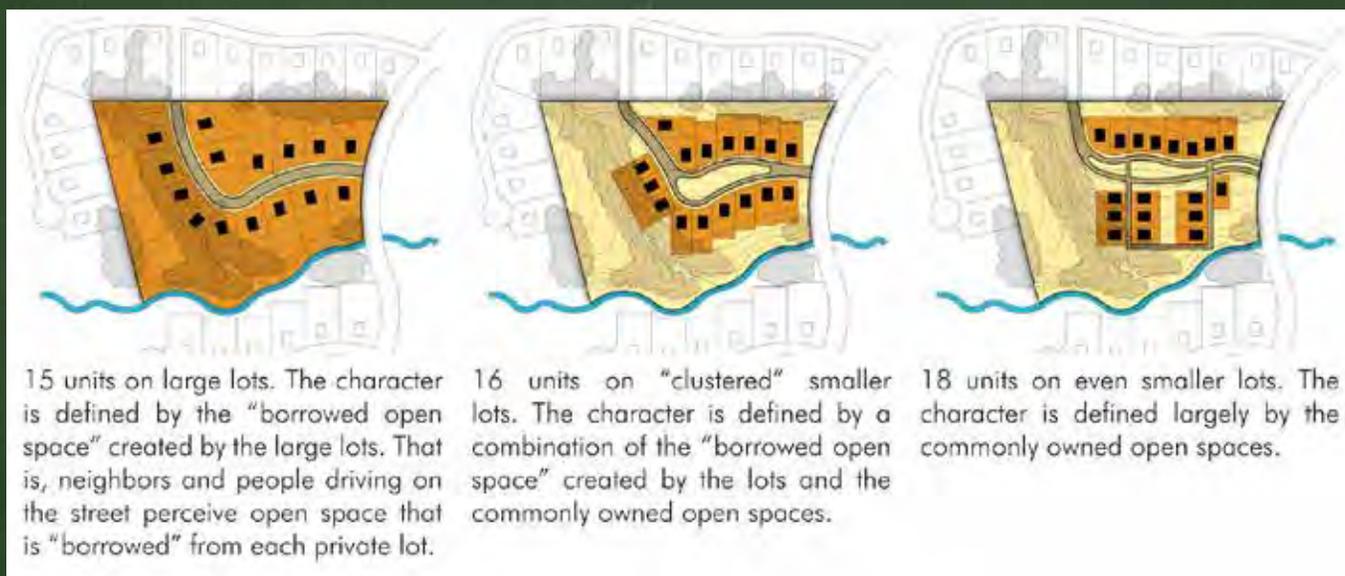
The CZR will be a primary means for the Township to implement its plans and to achieve the purposes declared in the Zoning Resolution. Increasingly, jurisdictions are using their zoning authority to stimulate responsible development practices. This is to say that their regulations seek to establish the methods and means for developing land in a manner that respects the built and natural environments without compromising development interests. In this way, responsible development provides a win-win scenario as it provides mutual benefits and suits all interests equally. Given the basic guidelines and objectives for the future development of Bainbridge Township, it then follows that the CZR should integrate sound planning principles and good development practices.

There are many ways that this may be accomplished. The broad principles of responsible development are spelled out generally in the Guide Plan and more specifically in the Land Use Plan. This section outlines the considerations of responsible development in the context of what may be included in the CZR and what the Township has the authority to regulate. Generally, this section focuses on conservation development, its environmental benefits, and the key regulatory strategies to be considered in the CZR. Provided the Township's authority to regulate renewable energy production in the form of wind generation, this section also addresses the essential siting and construction-related issues to be considered in the regulations.

3.3.5.1 Conservation Development

Over the past fifty years, residential development has spread across the Upper Midwest landscape, quite rapidly in some areas. As urbanized areas have grown or reconcentrated the population, people have migrated to more suburban or rural areas on the outskirts of cities. Much of this type of development has followed a conventional design, which has been described as "cookie-cutter development." In response, most residential zoning regulations

Figure 3.5, Conservation Development Rationale



As illustrated in the examples above, the allowance or incentivizing of conservation development increases the potential that new residential development will have a lesser impact on the Township’s environmental resources.

Source: Kendig Keast Collaborative

have perpetuated this pattern with requirements for minimum lot sizes, minimum lot widths and setbacks, uniform road standards, and other typical requirements. Open space in these developments is limited to the yards of privately-owned lots. In many cases, there was little thought given to preserving or improving the quality of open-space or protecting natural features on the developed parcels.⁸

To preserve open space and achieve a rural character, many communities have adopted large-lot zoning, only to find that they perpetuated sprawl and lost valuable environmental amenities and resources. Indeed, some of the major impacts and inherent flaws of conventional zoning and corresponding subdivision ordinances has resulted in developments, “designed” with little regard for existing natural resources; with little variety in density and with little open space that is left preserved or accessible to community

residents (Stokes, et al. 1997). The resulting lower density requires more infrastructure per dwelling unit, which equates to greater resource intensity, and, in turn, raises the overall cost of development.

As concerns for the issues of open-space preservation and environmental protection have increased, developers and community officials have sought alternatives to conventional development patterns. The most common name for this alternative approach is conservation development. Its main objective is to allow development that is protective of environmental features by setting them aside as open space. By its nature, conservation development also reinforces and protects the character of rural communities.

Conservation developments differ from conventional development in several ways. Conservation developments site homes on smaller lots with less emphasis on minimum lot size. The total number of homes, or density, on a given acreage though, may or may not increase over that allowed in a conventional subdivision. Put simply, the same or a few more

⁸ John Church, “Cluster/Conservation Development.” University of Illinois. <http://urbanext.illinois.edu/lcr/cluster.cfm>

homes are arranged on a smaller portion of the total site. The remaining land is set aside as protected open space which is shared by the residents of the development. See **Figure 3.5, Conservation Development Rationale.**

In most cases, regulations must be amended to facilitate (or encourage by way of uses) conservation development. Road frontages, lot size, setbacks, and other regulations must be refined to promote the preservation of environmentally sensitive areas and other unique characteristics of the parcel being developed.

Zoning rules that allow for a more intensive grouping of dwellings on smaller parcels, thus leaving more room for natural resource amenities and open space, can be an effective way of accommodating development in rural areas.

The key environmental advantage of conservation development is the preservation of open space, which, in turn:

- provides residents with larger areas within which to recreate, or use for agriculture or community gardens;
- protects the natural features of a site, which may provide important habitat for wildlife, and a means for naturally detaining and filtering storm water;
- provides more area for the preservation of tree canopy and resulting carbon storage and sequestration;
- reduces the amount of impervious surfaces and resulting concentrations of storm water runoff; and
- provides the potential to link together the open space of several cluster developments to create more effective and continuous “environmental corridors” within and between communities.

Developers benefit from conservation development because it reduces the quantity and subsequent costs of site development, with respect to reduced lengths of roads, curbs and gutters, and reductions in utility infrastructure (storm, sanitary sewer and communications, electricity, etc.). It also tends to increase (in a durable way) the market price of individual lots in comparison to conventional subdivisions. Consequently, reductions in lengths of road and utility infrastructure benefits the jurisdiction by reducing long-term maintenance costs (R. Arendt, ed. 1994).

In order to maintain the environmental and market value accrued from preserving open space within conservation developments, it is important to ensure effective regulatory protections, such as conservation easements, to ensure the open space is protected in perpetuity.

To provide incentive for conservation development, many jurisdictions offer density bonuses. Recognizing their benefits, some jurisdictions simply require conservation development.⁹¹⁰¹¹

CZR Considerations

The current Zoning Resolution provides for cluster development on no less than 15 acres of land in the R-5A District and nine acres within the R-3A District. The maximum density within both districts is the same as for large lot development (one unit per five and three acres, respectively). Within the R-5A District, single areas within a development may have a density not exceeding three units per acre. The overall density though must be 0.20 or less.

9 (Mathew Mega, Barbara Lukermann and Robert Sykes. University of Minnesota Extension Service, <http://www.extension.umn.edu/distribution/naturalresources/components/7059-01.html>)

10 Stokes, Samuel N., A. Elizabeth Watson and Shelley Mastran, 1997. *Saving America's Countryside: A Guide to rural Conservation*. National Trust for Historic Preservation. The Johns Hopkins Press. P. 180.

11 Arendt, Randall, ed. 1994. *Rural By Design*, American Planning Association, p. 287

Table 3.5, Cluster Options in the R-3A and R-5A Districts

R-5A District		
Lot Size	% Open Space	Density
3.33 acre	25%	0.20
3.12 acre	30%	
2.92 acre	35%	
2.71 acre	40%	
2.57 acre	45%	
2.33 acre	50%	
2.10 acre	55%	
1.86 acre	60%	
1.61 acre	65%	
1.38 acre	70%	
1.14 acre	75%	
0.91 acre (39,750 s.f.)	80%	
R-3A District (or any single area in the R-5A District)		
1.92 acre	25%	0.33
1.81 acre	30%	
1.69 acre	35%	
1.58 acre	40%	
1.54 acre	45%	
1.54 acre	50%	
1.39 acre	55%	
1.25 acre	60%	
1.11 acre	65%	
0.95 acre	70%	
0.81 acre	75%	
0.74 acre	80%	

In the R-3A District, no single acre may have more than three units per acre. The regulations for the R-5A District require a minimum 25 percent open space, which equates to an average lot size of 3.33 acres to maintain a gross density of 0.20. There is no minimum open space in the R-3A District. The only requirements for cluster development in either district is the gross density (and minimum open space in the R-5A District), which means that the lots may be of any size and any housing type is permitted. Cluster development is the only way attached or multi-family housing is permitted in the Township.

Provided in **Table 3.5, Cluster Options in the R-3A and R-5A Districts**, is a sampling of lot sizes and open spaces for single-family detached dwellings that would meet the requirements of this Section. This is provided to exhibit the average lot sizes and percentages of open space necessary to maintain a density of 0.20 units per acre (one unit per five acres). Generally, these are in line with what currently exists throughout the Township (refer to **Table 3.1, Analysis of Existing Character**).

As the CZR is drafted the following should be considered:

- Displayed in **Map 3.1, Existing Development Character** is 279 undeveloped parcels that are three or more acres in size. Of these, 69 parcels (25 percent) are more than nine acres and only 50 parcels (18 percent) are greater than 15 acres. Therefore, the minimum land area necessary for cluster development in the R-3A and R-5A Districts should be reconsidered.
- For the significant reasons of preserving environmental resources, consistent with the findings and directions of the Land Use Plan and the purposes declared in the Zoning Resolution, incremental density bonuses may be offered for increasing percentages of open space.
- A sliding scale may be used whereas for each one percent of increased open space would be an incremental increase in density, up to a maximum allowed density.
- The development standards warrant greater clarity and specificity to preserve or create definitive outcomes.
- The site coverage limitations and building setbacks warrant recalibration as each must vary commensurate with the degree of clustering.
- The determination as to whether roads are publicly dedicated or private is a policy issue that merits discussion and direction.
- Depending on the degree of clustering, the arrangement of lots on a site, and the presence of natural vegetation, a planting buffer may or may not be necessary.

3.3.5.2 Low-Impact Design

One method of implementing conservation development is by requiring that land development incorporate low-impact development / green

infrastructure approaches to mimicking / restoring pre-development hydrology to the maximum extent practicable. Low-impact development (LID) is an approach to land development that uses various land planning and design practices and technologies to simultaneously conserve and protect natural resource systems and reduce infrastructure costs. LID still allows land to be developed, but in a cost-effective manner that helps mitigate potential environmental impacts.

For example, site plans should be developed that keep water from running off the land too quickly and instead allow the water to soak back into the earth and replenish the groundwater table or aquifer. Reducing the quantity and velocity of water run-off minimizes soil erosion and loss of land.

Site plans should employ strategies and techniques that protect the quality of water that flows into lakes, streams, and wetlands or recharges groundwater supplies. The CZR should emphasize LID storm water management options within public rights-of-way, particularly along roadsides and in parking lots, where soils and other conditions will allow. LID processes for systematically managing storm water include 'chains' or natural treatment methods of filtration, infiltration, and storage and ultimately reuse.

3.3.5.3 Small Wind Farms

Part II, *Legal Context* points out that in addition to the general grant of authority to Townships to implement zoning resolutions, there are also a series of other provisions with respect to a variety of specific land uses. One of these is small wind farms. Essentially, aside from the restrictions on the Township to regulate major utilities and "economically significant wind farms," it is within the Township's authority to regulate the "location, erection, construction, reconstruction, change, alteration, maintenance, removal, use, or enlargement of any small wind farm, whether publicly or privately owned, or the use of

land for that purpose.” Given this authority, there is a series of siting and construction issues that warrant consideration for the purposes of the CZR.

Generally, a site with an annual average wind speed of 12 miles per hour or greater does not need a detailed wind resource study to be performed to determine if there is adequate wind to support a small wind turbine. Given that the average wind speed in Geauga County is between 14 and 17 miles per hour, there may be an increasing interest and demand for small-scale wind energy generation within Bainbridge Township. Many areas around the country have experienced significant wind energy development in recent years and have developed zoning regulations specifically for small-scale wind energy generation projects.

In consideration of regulatory standards or requirements, there are several siting and construction-related issues that would need to be addressed should the Township decide to regulate small wind farms. These include:

- Setbacks from property lines, structures, roads, etc. Towers that are located in single-family developments should be appropriately located behind principal buildings (either in the rear yard or in the building envelope) and set back from the building envelopes of abutting properties (commonly one foot for each foot in height).
- The vertical clearance of the blades of tower-mounted horizontal axis turbines should be at least 15 feet when the blades are at their lowest point.
- Reflections and Shadows. Turbine blades should be coated to minimize reflection. They should also be installed in locations that prevent flickering shadows from being cast into the windows of buildings on nearby properties.
- Safety standards for tower and electrical equipment and wiring, including proper grounding

of the turbine and tower.

- Aesthetics of the tower and turbine design
- Documentation provided by the manufacturer should demonstrate that noise at peak generation will not exceed 50 dBA at any property line, based on the proposed location of the turbine.
- Interference with electro-magnetic telecommunications.

Tower Design

The type and design of the tower is dependent on the size of the turbine (nacelle and blades), as well as the height. A monopole tower design is a tilt-up style tower, which typically requires four guy wires for support. The height of this type of tower is limited by the weight of the machine (generally, 10 kW turbines are the largest that can be placed on such towers). Tilt-up towers require space for guy wires and for tipping up and down the tower.

Guyed lattice towers are generally more expensive than monopole designs but can support larger turbines at greater heights. Similar to tilt-up towers, guyed lattice towers require space for guy wires and for tipping up and down the tower.

Lattice towers are required for machines larger than 20 kW in size. The installation of these towers is generally more than that of a guyed lattice tower because a crane is needed to lift the tower and turbine into place.¹²

Tower Access

Climbing access should be limited by either:

- A six-foot tall fence around the base of the tower with a locking gate; or
- A design that does not allow for tower climbing at heights lower than 12 feet.

¹² <http://windustry.org/home-and-farm-scale-wind/planning-small-wind-project>

Turbine Design

There are two predominant types of turbines - horizontal axis wind turbines (HAWT) and vertical axis wind turbines (VAWT). HAWTs are typically more efficient, but require higher towers. VAWTs are less efficient, but are able to capture winds nearer to the ground.

With respect to optimizing performance while mitigating negative visual impacts there are several considerations, including:

- Optimizing wind access by providing height standards that allow wind projects to be twice as tall as surrounding structures and mature trees;
- Allowing energy produced by a small-scale wind energy project on one property to be used off-site by neighbors;
- Screening of small-scale wind energy projects can reduce their efficiency and cost-effectiveness; and
- Requiring wind energy projects to be lower than mature trees can significantly reduce their efficiency and cost-effectiveness.

3.3.5.4 Small-Scale Solar

Geauga County typically enjoys 175 day of sunshine per year, some of which could be used to generate electricity.¹³ Within the general grant of authority to Townships to implement zoning resolutions, small-scale solar installations may be regulated as part of residential and nonresidential property, as outlined in **Table 2.1, Permissible Interests by Type of Zoning Regulation.**

In short, the regulation of residential property includes the location, height, bulk, and size of buildings and structures. For nonresidential property, the regulations may apply to height, size, setback, and architectural attributes. Given this authority,

there is a series of site-level considerations that warrant consideration in the CZR.

At the site planning level, the way development is arranged and oriented is important, including the following considerations:

- Photovoltaic arrays may be roof-mounted on principal or accessory buildings;
- Whether buildings should be “solar ready” (meaning they are oriented for solar exposure and have necessary wiring, plumbing, and roof pre-designed structures to handle solar collectors);
- Setting back ground or structure-mounted photovoltaic arrays (not mounted on buildings) in a manner which is similar to detached accessory buildings if the highest point on the panels is more than six feet above grade.

The current Zoning Resolution permits as an accessory use “wind energy systems, including windmills and wind generators.” With respect to solar collectors (which do not typically move), this Assessment recommends that they be regulated as building equipment or accessory structures, with performance criteria regarding:

- setbacks, siting, and locational criteria; and
- mounting and maximum height standards.

13 <http://www.homefacts.com/Ohio/Ross-County/Bainbridge/communityinfo.html>

PART IV

Structure of a Good CZR

AUGUST 24, 2012



4.1. Generally

The existing Zoning Resolution is nearly 25 years old and has been amended several times. A natural consequence of the amendment process is that the original regulatory provisions often become out-of-touch with current realities as amendments are typically enacted in a reactionary manner to prevent an unexpected problem from happening again. Commonly, though, the fix to the problem causes conflicts with other regulatory provisions or reduces the clarity of the overall Zoning Resolution. Oftentimes, this leads the regulatory process to become increasingly more complex and cumbersome; and sometimes less defensible. By way of example:

- With respect to overall complexity, the definition of “Service station garage” is a half-page long and includes mention of such things as selling road maps and allowing customers use of a restroom.
- With respect to individual provisions, the Zoning Resolution specifies lists of allowed accessory uses and specifies that “Only the following

accessory uses or accessory structures shall be permitted ...” Following this provision would mean that a residence in the R-5A, Rural Open Residential District, could have an outdoor pool, but since hot tubs are not mentioned, it would not be allowed.

Even though the existing Zoning Resolution does contain many standards that promote good development and protection of rural character and environmental resources, those standards are often difficult to find. Accordingly, this part of the Assessment is creating a strategic framework for improving the usability and accessibility through restructuring the separate provisions of the existing Zoning Resolution and implementing measures to simplify the presentation of standards, measurements, procedures, and definitions.

4.2. Creating a “User-Friendly” CZR

The sequence of the new CZR should be based on maximizing the accessibility of information to the infrequent user (also called a “casual user”) of the CZR. That is, information for casual users

should be presented first, so that they have ready access without having to read through highly technical material. Then, information primarily used by professionals and technical decision-makers (collectively, “technical users”) should be presented in a way that is intuitive to them.

4.2.1 Different User Groups

A casual user is a resident or businessperson who uses the CZR only rarely. For example, it might be a business owner who only looks at the CZR once every few years in order to locate a new property, or it could be a homeowner trying to determine whether or not to attend a public hearing for the property adjacent property currently being considered for a rezoning. A technical user might be a member of City staff, an elected or appointed official, a land owner or developer, attorney or judge, etc. These people use the CZR in the course of their professional business, or are periodically called upon to make technical interpretations of it. These are further clarified in

Table 4.1, User Groups.

4.2.2 Consolidation and Sequencing of Various Zoning Resolution Provisions

This Assessment suggests a strategic approach using the following order of presentation in the CZR, based on likely questions from each user group:

Casual users should be able to find clear answers to general questions quickly. This means the questions to their answers should be presented first:

- What can I do with my land (or, what can my neighbor do with their land)?
- What types of buildings and structures can I build and how big?
- What, if anything, do I have to protect or preserve?
- What approval is required and to whom do I make the application?

Technical users need to find their information quickly, too. However, since technical users are accustomed to reading and applying technical regulations, these sections of the CZR are typically located after the information most used by casual users. In general, these provisions answer the following questions:

- With respect to project design:
 - How much parking must be provided, and what are the design criteria?
 - What are the design and layout criteria for site plans and development?
 - What are the design standards for buildings?
 - In areas set aside for landscaping, how much

Table 4.1, User Groups

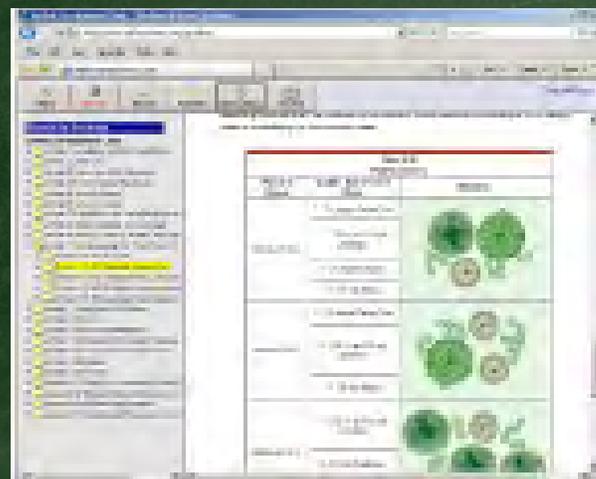
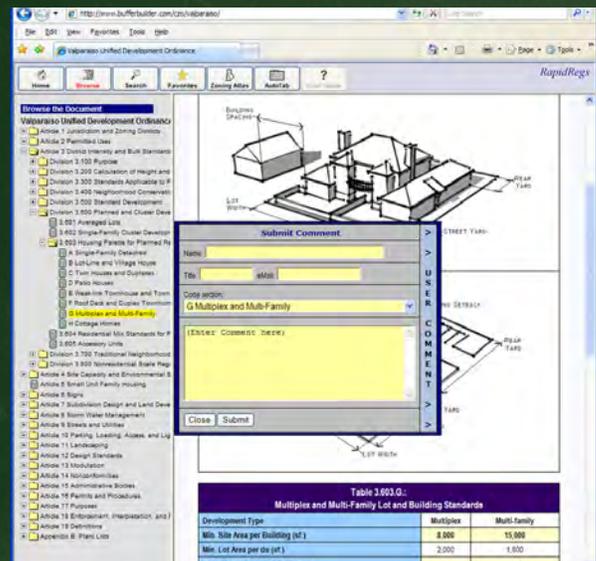
	Casual Users	Technical Users
Private Sector	Landowners and business owners who want to know what they can do with their property, or where they can locate their business; and real estate professionals.	Private-sector land planners, architects, landscape architects, builders, engineers, developers, and others who work in the land development field, who plan and design projects to meet technical code requirements
Public / Civic Sector	Neighbors who want to ensure that the character of their neighborhood is not compromised by new development or redevelopment.	Board of Trustees, Zoning Commission, Board of Zoning Appeals and other review boards; Zoning Inspector and code enforcement officers; attorneys; and judges who are charged with interpreting and enforcing the law.

landscaping must be provided, and what are the design criteria?

- With respect to providing infrastructure and mitigating the impacts of new development:
 - What must be dedicated or constructed to mitigate the impacts of this development?
 - What are the standards for design of infrastructure (streets, sidewalks, utilities, and drainage systems) or which other agency or jurisdiction is responsible for reviewing and/or approving my plans?
- With respect to approval procedures:
 - What people, boards, and/or commissions are responsible for administering the CZR?
 - What approvals are necessary for development?
 - Who grants what approvals?
- With respect to administration:
 - What rules apply to development that conformed to the requirements of the prior Zoning Resolution but no longer conform to the new CZR?
 - How is the CZR interpreted and enforced?
 - What do the words in the CZR mean?

inconsistent and unpredictable enforcement, differing interpretations, and barriers to investment that strengthen the character and quality of Bainbridge Township. The new CZR will incorporate diagrams, tables, and other graphics that help illustrate and clarify procedures, use regulations, and design principles. Examples are shown in **Figure**

Figure 4.1, ZoningPlus™



Liberal use of table, graphics, and illustrations, ease the interpretation of standards and improve understanding and the friendliness of the regulations.

Source: Kendig Keast Collaborative

The Annotated Outline that is presented in **Part V, Annotated Outline**, shows how this recommended structure is proposed to be implemented in the new CZR.

4.3. User-Friendliness and Broad Access

4.3.1 Clarity of Presentation

The new CZR must be easy to understand for every type of user – staff, elected and appointed officials, developers, and residents. This will minimize

4.1, ZoningPlus™. Such mechanisms are more easily understood than extensive narratives and lists, and can easily be integrated into ZoningPlus™, which is described in further detail in *Section 4.3.4, Electronic Code Publishing*.

4.3.2 Cross-reference and Consistency

As development regulations are usually amended over time, it is easy to create internal inconsistencies, whether they are in the form of references between chapters and sections, or in terms of the actual regulations themselves. One of the most profound benefits of drafting a new CZR is the opportunity to ensure consistency between various regulations and easy navigability of the document through comprehensive cross-referencing. This will eliminate redundancies, contradictions, and circular references that often lead to no clear regulatory direction.

4.3.3 Vocabulary

The structure and organization of the CZR are important aspects to its accessibility. However, even the most intuitive organization offers little to no accessibility if the vocabulary in the CZR is inconsistent or unnecessarily complicated. The strategic recommendation with respect to vocabulary is, as Albert Einstein once put it, “make things as simple as possible, but no simpler.” To this end the new CZR should:

- Avoid long paragraphs and unnecessarily detailed statements of purpose;
- Use simple words and active voice (where possible), in order to shorten sentences;
- Include illustrations to ensure that difficult or complex concepts are broadly understood;
- Use defined terms consistently; and
- Use defined terms to avoid the repeated use of long phrases (for example, the phrase “construction, renovation, alteration, expansion or extension,” could potentially be replaced with

the word “development”)

4.3.4 Electronic Code Publishing

The CZR will be drafted in ZoningPlus™, which is an Internet-based code publishing system that was developed by the consultant specifically meeting the demands of electronically publishing complex, graphics-intensive documents such as the pending CZR. ZoningPlus™ offers the following benefits:

- It is completely Internet-based. Users with a password can draft, edit, and publish regulations in ZoningPlus™. The public can browse, search, comment, download, and print individual sections or the entire resolution. Graphics, which can help make regulations easier to understand, are easily inserted and viewable.
- Text, tables, and figures are easy to view.
- Terms which need definitions are easy to spot in the text. Hovering with the cursor over the term will pull up the definition in a pop-up window.
- It allows for hyperlinking within the CZR and to outside resources. For example, an individual section can be linked to the Ohio statutes.
- There is no long wait between the time an amendment is adopted and the time it is published. In other words, the Township is able to self-codify and maintain the CZR in-house.
- It may allow incorporation of a full range of multimedia and interactive technologies, including integrated video; special purpose calculators (e.g., parking and development yield); GIS and GoogleEarth™-based zoning maps; or a buffer model.

4.3.5 Uniform and Logical Numbering System

Readability is enhanced by breaking material down into manageable pieces and having a hierarchy to the organization. The recommended structure uses numbers and brief but precise names, as well as

font variations, to provide consistent typographic and visual cues to provide structure. The new CZR will be hierarchical, organized from the top down by Chapter, Article, Division, Section, subsection, paragraph, and sub-paragraph, as indicated.

The Chapter headings will be centered on the odd numbered pages and displayed as a large font so as to clearly distinguish a major change in topic.

Chapter 1: Purpose, Authority, Jurisdiction, and Transition

Major sub-elements within a Chapter are Articles. The Article numbering system uses Arabic numerals starting with one and counting upwards. The use of Articles allows for grouping of related Divisions within a Chapter. Articles will be displayed in a different font size from the Division font, such as:

Article 1, Title

Divisions are used to sub-group similar Sections inside of Articles. Divisions use a series of numbers divided by a dash. The number before the dash indicates the Article number. The number after the dash indicates the Division number starting with one and counting upwards, such as:

Division 1-1

Sections are the “normal text level,” that is, the location for the substance of the CZR. Section numbers use the same structure as Division numbers, followed by another dash and number to delineate the specific section. As such, there can be up to 99 sections in each Division, such as:

Section 1-1-1, Short Title

Subsections are used to lay out individual requirements within a Section. Subsections are identified with indented capital letters. Paragraphs are used to lay out individual items within subsections. Paragraphs are numbered with Arabic numerals

and indented one level further than subsections. Sub-paragraphs are used to lay out individual items within Paragraphs. Sub-paragraphs are lettered with small letters and indented one level further than Paragraphs, such as:

A. Title of Paragraph. Text ...

1. Title of Text. Text ...

a. Text ...

i. Text ...

The structure of the existing Zoning Resolution is essentially built upon the concept of Chapter and sections. This Assessment recommends that the new CZR is presented in a more hierarchical, logical structure that uses Articles and Divisions to organize related Sections within Chapters. The proposed structure will provide the framework for a clear flow and make information easier to locate.

The next part, Part V, Annotated Outline, provides a proposed annotated outline which will be used to organize the CZR.

PART V

Annotated Outline

AUGUST 24, 2012



The following annotated outline reflects the proposed structure and content of the new CZR. As described in the previous parts of this Assessment, it aims to join together any development-related regulations into a cohesive, consistent, and user-friendly document. The outline may be modified during the course of the project after further input from the Township staff, Zoning Commission, Zoning Board of Appeals, and Township Board of Trustees. The annotated outline highlights the major points of the new CZR. It is not intended to address every provision that may be included in the document.

Chapter 1 Purpose, Authority, Jurisdiction, and Transition

Article 1, Purpose, Authority, Jurisdiction, and Transition. This Article describes the authority for and general purposes of the CZR, and provides, if necessary, transitional provisions for changing from the existing Zoning Resolution to the new CZR. The Article is comprised of the following Divisions:

- Division 1-1, Purpose and Application

- Division 1-2, Title and Short Title
- Division 1-3, Authority and Jurisdiction
- Division 1-4, Transitional Provisions
- Division 1-5, Interpretation and Severability

Chapter 2, Zoning Districts and Land Use

Article 2, Zoning Districts. This Article establishes zoning districts, adopts the official zoning map, and provides rules for interpreting the map. This Article is comprised of the following Divisions:

- Division 2-1, Purpose and Application
- Division 2-2, Zoning Districts Established
- Division 2-3, Official Zoning Map

Article 3, Land Uses. This Article provides the matrix of permitted, limited, conditional, and prohibited uses, meaning it specifies which uses are allowed, allowed subject to conditions, and not allowed in each district. It also sets out the special standards that apply to uses that are subject to conditions and

provides standards for temporary uses and criteria for determining how to classify a use that is not listed. This Article is comprised of the following Divisions:

- Division 3-1, Purpose and Application
- Division 3-2, Permitted, Limited, Conditional, and Prohibited Uses
- Division 3-3, Temporary Uses
- Division 3-4, Uses That Are Not Listed

Chapter 3, Density, Intensity, Bulk, and Scale

Article 4, New Residential Neighborhoods. This Article provides basic standards for new residential subdivisions.

- Division 4-1, Purpose and Application of Article
- Division 4-2, New Residential Neighborhoods

Article 5, Lot Standards and Housing Palette. This Article sets out the standards for new residential lots, organized into a housing palette, which would establish different standards for different types of housing, in order to promote public health and safety objectives. This Article is comprised of the following Divisions:

- Division 5-1, Purpose and Application of Article
- Division 5-2, Residential Lot and Scale Standards

Article 6, Existing Neighborhoods. This Article sets out the standards for the improvement or redevelopment of lots in Existing Neighborhoods. This Article is comprised of the following Divisions:

- Division 6-1, Purpose and Application
- Division 6-2, Development of Lots in EN Districts
- Division 6-3, Alternate Standards

Article 7, Nonresidential Scale, Bulk and Design. This Article sets out the standards for nonresidential lots. It includes standards with regard to height, bulk,

number of stories, and size of buildings and other structures, as well as site and building standards.

- Division 7-1, Purpose and Application of Article
- Division 7-2, Nonresidential Lot and Scale Standards
- Division 7-3, Site and Building Design

Article 8, Supplemental Standards. This Article sets out the standards for accessory buildings (e.g., attached garages, sheds, and accessory dwelling units), fences, walls, renewable energy systems, and other minor structures that are subordinate to the principal building or otherwise accessory to the use of the property. This Article is comprised of the following Divisions:

- Division 8-1, Purpose and Application
- Division 8-2, Accessory Use and Structure Standards

Chapter 4, Signs

Article 9, Sign Standards. This Article sets out the standards for all types of signage and is comprised of the following Divisions:

- Division 9-1, Purpose and Application
- Division 9-2, General Provisions
- Division 9-3, Permanent Signs
- Division 9-4, Temporary Signs
- Division 9-5, Sign Master Plans

Chapter 5, Resource Stewardship and Environmental Quality

Article 10, Resource Stewardship and Environmental Quality. This Article would include resource protections standards for riparian areas and other sensitive land areas, and standards for nuisance prevention (e.g., noise and vibration, emissions and odors, toxic and hazardous material,

etc.), all in the interest of protecting public health and safety. This Article is comprised of the following Divisions:

- Division 10-1, Purpose and Application
- Division 10-2, General Provisions
- Division 10-3, Riparian Setbacks and Other Sensitive Lands
- Division 10-4, Nuisance Prevention

Chapter 6, Development Standards

Article 11, General Development Standards. This Article sets out the design principles and standards for development in order to obtain a Zoning Certificate, including qualitative design principles, standards for lots and blocks, the general configuration of open space, among other items. This Article is comprised of the following Divisions:

- Division 11-1, Purpose and Application
- Division 11-2, General Provisions
- Division 11-3, Bonuses

Article 12, Flood Damage Prevention.

- Division 12-1, Purpose and Application
- Division 12-2, General Provisions
- Division 12-3, Provisions for Flood Hazard Reduction

Article 13, Stormwater Management. This Article sets out the standards for stormwater management and is comprised of the following Divisions:

- Division 13-1, Purpose and Application
- Division 13-2, Construction and Post-Construction Standards

Article 14, Parking, Loading, and Lighting. This Article sets out the standards for the number of parking and loading spaces and design that is

required for each use. It will include parking credits (e.g., through shared parking) and flexible standards for the surfacing of parking areas that are seldom used. This Article is comprised of the following Divisions:

- Division 14-1, Purpose and Application
- Division 14-2, Required Parking
- Division 14-3, Parking and Loading Standards
- Division 14-4, Lighting

Article 15, Landscaping and Buffering. This Article sets out reasonable landscaping, buffering, and tree preservation and protection standards. This Article is comprised of the following Divisions:

- Division 15-1, Purpose and Application of Article
- Division 15-2, Landscaping
- Division 15-3, Buffering
- Division 15-4, Tree Preservation and Protection

Chapter 7, Administration

Article 16, Nonconformities. This Article sets out the standards for if, when, and how compliance with the CZR will be required of existing development that was allowed when it was established but would no longer be allowed after the CZR is adopted. This Article is comprised of the following Divisions:

- Division 16-1, Purpose and Application
- Division 16-2, Classification of Nonconformities
- Division 16-3, General Regulations
- Division 16-4, Conversion of Nonconformities

Article 17, Administrative Bodies. This Article sets out who is responsible for making recommendations and decisions under this CZR, and their responsibilities. It also establishes the requirements for membership and operation of appointed boards and commissions. These provisions are largely

dictated by state law. This Article is comprised of the following Divisions.

- Division 17-1, Purpose and Application
- Division 17-2, Boards and Commissions
- Division 17-3, Staff
- Division 17-4, Other Review Bodies, Agencies, and Jurisdictions

Article 18, Certificates and Procedures. This Article sets out the procedures for obtaining Zoning Certificates and other development approvals. This Article is comprised of the following Divisions:

- Division 18-1, Purpose and Application
- Division 18-2, Required Certificates
- Division 18-3, Standard Development Review Procedures
- Division 18-4, Administrative Processes
- Division 18-5, Public Hearing Processes
- Division 18-6, Administrative Appeals

Article 19, Enforcement and Remedies. This Article establishes how the CZR will be enforced, including procedures for ensuring compliance and penalties for noncompliance. This Article is comprised of the following Divisions:

- Division 19-1, Purpose and Application
- Division 19-2, Violations
- Division 19-3, Enforcement

Chapter 8, Measurements and Words

Article 20, Word Usage, Measurements, and Definitions. This Article sets out how the words are used, the meaning of acronyms that are used in the CZR, and the meanings of all the defined terms and phrases in the CZR. This Article is comprised of the following Divisions:

- Division 20-1, Purpose and Application
- Division 20-2, Word Usage and Acronyms
- Division 20-3, Measurements and Calculations
- Division 20-4, Definitions

Table 3.1, Analysis of Existing Character

Character Class	Subdivision Name	Total # of Parcels	# of Developed Lots / Units	Min. Lot Size (ac.) ¹	Max. Lot Size (ac.) ¹	Average Lot Size (ac.) ¹	Total Acreage	Total Developed Acreage	Total Open Space Acreage	% Open Space	Gross Density	Net Density	
Rural	0.20 units per acre (u/a) and less												
	The Trees Condos	38	37	12.27	12.30	12.28	466.81	454.53	12.28	2.6%	0.08	0.08	
	Dennis Family Condos	6	5	5.53	7.55	6.21	47.51	31.05	16.46	34.6%	0.11	0.16	
	Stoneridge of Geauga	36	32	0.57	1.80	0.98	198.16	31.47	160.83	81.2%	0.16	1.02	
	Weathervane	30	25	5.06	5.86	5.32	150.17	132.89	17.28	11.5%	0.17	0.19	
	Stockton	9	9	3.71	8.90	5.87	52.82	52.82	0.00	0.0%	0.17	0.17	
	Edgewater Reserve	34	31	5.00	10.64	5.26	178.17	163.07	15.10	8.5%	0.17	0.19	
	Hawksmoor	35	29	1.55	3.42	2.15	165.18	62.37	102.81	62.2%	0.18	0.46	
	Forest Trails	8	8	5.00	5.53	5.10	40.86	40.86	0.00	0.0%	0.20	0.20	
	Beech Tree Estates	8	8	5.00	5.19	5.06	40.48	40.48	0.00	0.0%	0.20	0.20	
	≤ 0.20 Totals / Averages		204	184	4.85	6.80	5.36	1,340.16	1,009.54	324.76	22.3%	0.16	0.30
	0.20 to ≤ 0.25 units per acre												
	Settlement One	14	11	1.10	6.55	3.64	53.23	40.06	13.17	24.7%	0.21	0.27	
	Amber Trails	24	21	2.50	3.32	2.65	98.92	55.82	43.10	43.6%	0.21	0.38	
	Jamestown	3	3	1.60	9.61	4.29	12.89	12.89	0.00	0.0%	0.23	0.23	
	0.21 to ≤ 0.25 Totals / Averages		41	35	1.73	6.49	3.53	165.04	108.77	56.27	22.8%	0.22	0.29
	0.25 to ≤ 0.33 units per acre												
	Country Estates of Geauga	6	4	2.90	8.19	4.42	15.52	17.67	7.33	47.2%	0.26	0.23	
	DiBlasi	5	5	3.00	4.88	3.85	19.26	19.26	0.00	0.0%	0.26	0.26	
	Timber Trails	56	54	3.00	4.89	3.20	207.40	172.73	34.67	16.7%	0.26	0.31	
	Chagrin Oaks	4	4	3.03	3.68	3.45	13.78	13.78	0.00	0.0%	0.29	0.29	
	Sanctuary	13	11	0.73	12.21	2.87	37.26	24.32	12.94	34.7%	0.30	0.45	
	Washington Post	42	38	1.50	4.43	3.08	128.27	117.07	11.20	8.7%	0.30	0.32	
	Chagrin Acres	17	16	3.00	4.03	3.27	53.89	52.38	0.00	0.0%	0.30	0.31	
	Bridgeway Estates	21	18	0.74	1.82	1.26	59.44	22.75	26.54	44.7%	0.30	0.79	
	King Ranch Estates	5	5	3.00	3.32	3.15	15.75	15.75	0.00	0.0%	0.32	0.32	
	Woods of Wembley	89	70	0.92	6.37	1.21	216.40	84.68	131.72	60.9%	0.32	0.83	
	Peppermill Chase	46	43	2.00	4.23	2.66	132.58	114.58	18.00	13.6%	0.32	0.38	
Northwood Lakes	11	9	1.42	2.92	1.99	27.67	17.87	9.80	35.4%	0.33	0.50		
0.25 to ≤ 0.33 Totals / Averages		315	277	2.10	5.08	2.87	927.22	672.84	252.20	21.8%	0.30	0.42	
RURAL CHARACTER TOTALS / AVERAGES		560	496	2.90	6.12	3.92	2,432.42	1,791.15	633.23	22.3%	0.22	0.34	

Table 3.1, Analysis of Existing Character

Character Class	Subdivision Name	Total # of Parcels	# of Developed Lots / Units	Min. Lot Size (ac.) ¹	Max. Lot Size (ac.) ¹	Average Lot Size (ac.) ¹	Total Acreage	Total Developed Acreage	Total Open Space Acreage	% Open Space	Gross Density	Net Density	
Suburban	≥ 0.33 to 0.50 u/a												
	Reserves at Brighton Park	16	15	1.37	3.55	2.12	43.95	31.61	12.34	28.1%	0.34	0.47	
	Strawberry Fields	27	26	1.50	6.14	2.16	65.29	56.11	9.18	14.1%	0.40	0.46	
	Westview	19	13	1.17	2.86	1.85	30.82	24.05	6.77	22.0%	0.42	0.54	
	Brayton Trail	14	14	2.01	3.08	2.35	32.94	32.94	0.00	0.0%	0.43	0.43	
	Millbrook Estates	31	20	1.41	2.93	1.65	44.71	32.90	11.80	26.4%	0.45	0.61	
	Old Meadow Estates	53	51	1.50	4.00	2.21	113.81	112.88	0.93	0.8%	0.45	0.45	
	River's Edge	183	168	1.25	2.52	1.66	358.15	279.11	75.10	21.0%	0.47	0.60	
	Copes Allotment	7	7	1.65	3.13	2.12	14.86	14.86	0.00	0.0%	0.47	0.47	
	Dalebrook Estates	63	54	1.47	2.27	1.67	108.90	90.33	15.21	14.0%	0.50	0.60	
	Stone Ridge Colony	63	57	1.34	3.92	1.94	113.26	110.80	2.01	1.8%	0.50	0.51	
	≥ 0.33 to 0.50 Totals / Averages		476	425	1.47	3.44	1.97	926.69	785.59	133.34	12.8%	0.44	0.51
	≥ 0.50 to 1.00 u/a												
	Country Lane	15	14	1.50	2.98	1.90	26.69	26.59	0.10	0.4%	0.52	0.53	
	Lake in the Woods	151	147	1.50	3.43	1.75	278.96	257.64	14.42	5.2%	0.53	0.57	
	Kenston Lakes Estates	65	60	1.21	1.94	1.57	106.29	94.07	12.22	11.5%	0.56	0.64	
	Tall Timbers	25	24	1.50	3.02	1.75	42.42	42.08	0.34	0.8%	0.57	0.57	
	Land in the Woods	25	23	1.50	2.65	1.74	40.45	40.00	0.45	1.1%	0.57	0.58	
	Canyon Lakes Colony	392	335	0.04	2.51	0.79	574.46	263.26	141.03	24.6%	0.58	1.27	
	Spring Valley Park	135	131	1.32	3.30	1.67	224.50	218.30	6.20	2.8%	0.58	0.60	
	Evans & Yahraus Inc.	6	6	1.50	1.79	1.68	10.09	10.09	0.00	0.0%	0.59	0.59	
	Twilea Park	22	20	1.47	2.20	1.65	33.05	32.91	0.14	0.4%	0.61	0.61	
	Beacon Hill	51	49	1.00	3.31	1.65	80.93	80.64	0.29	0.4%	0.61	0.61	
	Bainbridge Heights	34	33	1.51	2.29	1.62	54.01	53.50	0.51	0.9%	0.61	0.62	
	Homestead Acres	12	12	1.61	1.78	1.63	19.52	19.52	0.00	0.0%	0.61	0.61	
	Taylor Acres	18	16	1.50	1.57	1.53	25.91	24.41	1.50	5.8%	0.62	0.66	
	Kingsley	32	32	1.50	2.34	1.55	49.54	49.54	0.00	0.0%	0.65	0.65	
	Ravenwood	22	20	1.12	1.73	1.35	27.62	26.98	0.64	2.3%	0.72	0.74	
	Pilgrim Village	188	167	0.96	1.89	1.10	206.69	183.65	22.99	11.1%	0.81	0.91	
	Scotland	31	28	0.83	1.55	1.13	33.13	31.70	1.43	4.3%	0.85	0.88	
	Laurel Springs	222	209	0.50	0.96	0.59	239.65	124.13	115.52	48.2%	0.87	1.68	
	Tanglewood Reserve	335	317	0.27	4.56	0.60	350.21	189.58	160.63	45.9%	0.91	1.67	
≥ 0.50 to 1.00 Totals / Averages		1,781	1,643	1.18	2.41	1.43	2,424.12	1,768.59	478.41	8.7%	0.65	0.79	
SUBURBAN CHARACTER TOTALS / AVERAGES		2,257	2,068	1.32	2.93	1.70	3,350.81	2,554.18	611.75	10.8%	0.55	0.65	

Table 3.1, Analysis of Existing Character

Character Class	Subdivision Name	Total # of Parcels	# of Developed Lots / Units	Min. Lot Size (ac.) ¹	Max. Lot Size (ac.) ¹	Average Lot Size (ac.) ¹	Total Acreage	Total Developed Acreage	Total Open Space Acreage	% Open Space	Gross Density	Net Density
Semi-Urban	Less Than 1.00 u/a			Sq. ft.	Sq. ft.	Sq. ft.						
	Lake Lucerne	437	359	13,068	101,059	21540	267.26	177.56	78.89	29.5%	1.34	2.02
	Living Homes	118	111	18,731	38,333	22734	77.74	57.94	18.27	23.5%	1.43	1.92
	Woodsedge Condos	26	26	5,663	53,143	26823	16.01	16.01	0.00	0.0%	1.62	1.62
	Canyon Manor	28	26	8,712	22,216	12066	12.88	7.21	5.67	44.0%	2.02	3.61
	Chagrin Knolls	51	39	1,742	15,246	5576	16.86	5.02	11.84	70.2%	2.31	7.77
	Edwards Landing	39	36	6,098	10,890	7440	14.39	6.15	8.24	57.3%	2.50	5.85
	Moncrief	18	16	10,890	10,890	10890	4.25	4.00	0.25	5.9%	3.76	4.00
	Bainbrook Condos	21	20	1,307	2,614	2091	4.86	0.96	3.90	80.2%	4.12	20.83
	Church	156	141	0.08	0.80	0.19	27.65	27.08	0.57	2.1%	5.10	5.21
	Tanglewood Lake Condos	71	67	871	3,049	1525	12.01	2.37	9.64	80.3%	5.58	28.27
	Tanglewood Gardens Condos	115	98	871	2,178	1369	15.07	3.08	11.99	79.6%	6.50	31.82
	Tanglewood Green Condos	61	60	871	1,742	1263	8.02	1.74	6.28	78.3%	7.48	34.48
	Tanglewood Villas Condos	52	48	871	2,178	1198	6.25	1.32	4.93	78.9%	7.68	36.36
	Chagrin Falls Park	1,341	1,341	871	30,056	2614	83.05	83.05	0.00	0.0%	16.15	16.15
	South Franklin Circle	51	199	2098	31790	6861	85.32	0.78	84.54	99.1%	2.33	254.45
	Less than 1.00 u/a Totals	2,585	2,587	4,844	21,692	8,266	651.62	394.27	245.01	48.6%	4.66	30.29
	SEMI-URBAN CHARACTER TOTALS / AVERAGES	2,585	2,587	4,844	21,692	8,266	651.62	394.27	245.0079162	48.6%	4.66	30.29

Independent Lots	Character Class	Total # of Parcels	# of Developed Lots / Units	Min. Lot Size (ac.) ¹	Max. Lot Size (ac.) ¹	Average Lot Size (ac.) ¹	Total Acreage	Total Developed Acreage	Total Open Space Acreage	% Open Space	Gross Density	Net Density
	Rural	438	438	3.00	33.88	6.17	2,703.26	2,703.26	0.00	0.0%	0.16	0.16
	Suburban	407	407	1.00	2.97	1.80	734.51	734.51	0.00	0.0%	0.55	0.55
	Semi-Urban	82	82	0.07	0.99	0.50	41.06	41.06	0.00	0.0%	2.00	2.00
	INDEPENDENT LOT CHARACTER TOTALS / AVERAGES	927	927	1.36	12.61	2.82	3,478.83	3,478.83	0.00	0.0%	2.71	2.71

Source: Base parcel and subdivision boundary/name data was derived from the Office of the Geauga County Auditor.

Percent Character of Developed Subdivisions

Developed Subdivisions	Character %
Rural	0
Suburban	1
Semi-Urban	0
Total Developed R, S, SU Acreage	6,435

Percent Character of Independent Lots

Independent Lots	Character %
Rural	1
Suburban	0
Semi-Urban	0