Land Use Development Considerations - Introduction

Clayton's rural character is highly cherished by residents and visitors alike. It plays a critical role in the community's continued environmental, economic, and quality of life success. Eroding the Town, Village, or hamlet's character is not an option for the Town or the Village. What follows are considerations to help development build on Clayton's character rather than detract from it.

Rural Character Defined

Rural character is oftentimes a perception unique to the individual. One person may interpret rural character as having a low density of development; another may only recognize it where there is a complete absence of man-made features, such as signs and buildings. But regardless of any individual interpretation of rural character, it remains true that as more people are attracted to rural areas, preserving the unique character of an area becomes more of a challenge. Ultimately, it is the community's own definition of rural character that is the single most important part of its preservation.

Clayton's shorelines, open fields, forests, and farmlands, draw residents to a variety of areas throughout the Town. Clayton's character is defined by its intimate scale, both spatial and architectural. The dominant character is forest lined farm fields in the Town with one and two story wood frame structures, flat open agricultural fields and wood lots. With the exception of minor topographic variation by stream and river valleys, the area is relatively flat with some relief.

The Village is defined by one and two story residences, narrow streets with short blocks and a small commercial center comprised of three and four story structures.

Both Town and Village are fortunate to have a significant portion of the St. Lawrence River and Seaway passing through its lands, opening up long stretches of shoreline. Open distant views of the River are prevalent along the Village Center, as well as from the Town and Village's historical summer home areas (now with year-round and seasonal), and its predominant rural open spaces.

Character Area Use and Design Considerations

The identified character areas (in the previous chapter) delineate areas of common identity and character, similar to a generalized existing land use map only more closely following the actual footprint. They also identify Clayton's priority areas to take into account when future development is proposed, including residential, commercial, mixed-use, agricultural, and other potential projects. Mitigating negative impacts in Clayton and its communities and their rural character is paramount. The following set of character area considerations pertain to each area respectively and should be used to consider proposed subdivisions, project applications, and zoning amendments.

Farmland Considerations

Land Uses in the Farmland Character Area should be oriented to agriculture and agri-businesses. Local regulations should clearly emphasize the importance to the community of maintaining farmlands and agricultural activities. Such

regulations should broadly define a wide variety of allowed agricultural uses, including agri-businesses such as food processing, veterinarians, machinery repair, and agri-tourism operations such as u-picks, seasonal events (corn mazes and hay-rides) and bed and breakfast inns. Additional examples of desirable land uses in the Farmland Character Area include home occupations, farm stands, farm retail outlets, farm worker housing, composting and saw mills.

Design and policy considerations in the Farmland Character Area should promote new development that minimizes impacts on farmland and farm activities.

Development in these areas should be carefully sited to avoid fragmentation of farmlands, preserve the most productive soils, and reduce nuisance conflicts. In order to accomplish this, the footprint of new non-farm development should be limited, overall residential density should be low, and new structures should be directed to the least agriculturally productive portions of a parcel being developed. Cluster or conservation subdivisions could be effectively used to cluster or move new structures away from prime farmland soils.

Farm equipment access should be maintained when approving subdivisions, especially to parcels to the rear or undeveloped parcels. Many communities use road frontage requirements as a way to reduce density and space new development, however, large road frontage requirements can be counterproductive to protecting agricultural lands and often result in large residential lots which encumber land that could still be farmed.

Rural Residential Considerations

Land use goals should preserve the remaining rural residential and agricultural character in this area by minimizing visual impact of development from public roadways and protecting important natural features. Planning should encourage traditional but innovative development to add more opportunities for traditional community living, employment, housing, recreation, and the conservation and efficient use of open space. Future land uses should include residential dwellings mixed with commercial or retail farm support, religious, public/municipal, and recreational uses. Rural living area development should be carefully designed and sited. Small scale, neighborhood based retail businesses should be retained for hamlet and village areas.

Conventional, suburban style subdivisions and strip commercial development are land development patterns that should be discouraged within the Rural Living Character Area. Design considerations should be oriented to allow for new development that reduces sprawl, reduces negative impacts on NYS Route 12, NYS Route 12E, and other major traffic arteries, minimizes impact on the environment, reduces impacts on agricultural and forest lands, and maintains small town character.

Promotion of development that displays design features of traditional village/hamlet and Town development should be the priority. Commercial development may be appropriate if it does not create objectionable noise, glare, or odors, and where the visual and open space characteristics of the area are reinforced.

Where feasible, historic farm roads and lanes should be retained and reused rather than constructing new roads or driveways. Preserving stone walls and hedgerows will maintain these traditional landscape features, define outdoor

areas, and maintain corridors for wildlife. When historic road/lane routing is not available road alignment should respond to natural features (i.e. topography and vegetation). Existing vegetation and topography can be effectively used to buffer and screen new buildings. Buildings can be grouped in clusters or tucked behind tree lines or knolls instead of spreading them out across the landscape in a sprawling or haphazard pattern.

Clearing of vegetation at the edge of the road should only include what is necessary to create a driveway entrance with adequate sight distance. Where possible, existing vegetation can be used as a backdrop to reduce the prominence of the structure within the landscape. Cut and fill earthwork should be minimized to limit impacts on the environment and its visual character.

Village/Hamlet Center Considerations

Land uses appropriate for the more urban Village/Hamlet Center include single family residences, two-family residences, small scale mixed use buildings (residential/commercial), institutional uses and small scale retail commercial or office buildings.

Village/Hamlet Center land uses include single family and occasional multi-family residences in well-defined neighborhoods that offer a diversity of housing choices often within a short walking distance to the downtown or business areas as well as other recreational and cultural amenities. Homes located along primary streets and side streets, are often connected to a sidewalk system along the street. Building setbacks from the right of way are shallow and mostly uniform, with relatively narrow lots that place homes in close proximity to each other. Residential streets in these areas are of a width that promotes slower vehicular speeds. Residences are the primary land use within the character area. Schools, small scale retail and offices, parks, and churches occur as well and are accessible by vehicles and pedestrians (i.e. uses in close proximity with pedestrian walkways).

Village/Hamlet Centers are intended to serve as destinations and activity nodes for outlying areas. New development should be pedestrian friendly in both design, layout and development. A primary driver of character within the village/hamlet center area is the relationship between buildings and the street. Consistency in height and massing are important to the sense of place. The increased density and height creates distinct opportunities and challenges for communities striving to grow and revitalize.

A critical design consideration for the Village/Hamlet Center character area is density of housing units. This character area has the highest density unit-per acre within the Town. However, it retains its small town character. Another crucial design consideration is the connectivity of neighborhoods to public spaces. Village/Hamlet Center areas often have small lot sizes that prohibit expansive areas for relaxation and recreation. As a result, there is often a demand for larger open spaces and programmatic options for its residents. Centralized public open spaces vary in size and provide opportunities for structured play or passive recreation. Such recreation spaces must have direct pedestrian and/or street level connections.

Important Village/Hamlet Center design priorities:

- Retain uniform setbacks along a street frontage.
- Reduce or eliminate “saw-tooth” lots created by vacancies or deep setbacks.

- Retain consistent building heights along a street frontage.
- Buildings should be no more than 2.5 to 3 stories high or similar to surrounding building heights.
- Encourage similar uses on opposite sides of the street or road.
- Parking lots should be located on the side or rear to maintain close proximity of the building to the street.
- Orient principle entrances to primary streets.
- Connect entrances to sidewalks (if present).
- Construction materials should be consistent with traditional building materials or appear so.
- Architectural character should emulate traditional or vernacular styles within the area.
- New development should include significant landscaping (street trees).
- Retain specimen and/or mature trees, especially those along the roadside.
- Utilize only native and/or hearty species that will survive in the North Country.

Waterfront Residential Character Area Considerations

Nearly all the uses in these areas are single family detached structures that are used for permanent or seasonal residences. The occasional small scale convenience retail, campground, motel, or marina services are also included. Although small in physical area, the character of these locations is significantly different from the surrounding landscape, with the proximity to water or water views providing the main attraction for most properties.

Primary design considerations for the waterfront residential character area include access to the water or public access to the water where feasible, and the protection of water resources. The demand for property in these areas has led to a high amount of private ownership. The retention and enhancement of public access therefore is a community priority.

Non-residential development should be reviewed to ensure objectionable noise, glare, and odors are limited and the visual and open space characteristics of the area are reinforced. Landscape buffering and screening can mitigate visual impacts. However, noise and odors are more challenging to mitigate without specific measures. Noise impacts must be mitigated and defined when adjacent to residential properties or on a residential street.

Commercial Character Area Considerations

Commercial areas throughout the Town are small office, retail, marina, or other services or industries that enhance Clayton's character in many ways. Within the Village, there are businesses in the historic downtown area which are two and three story buildings. This aspect is important to the downtown as a destination. There are some additional businesses along James and State Streets that are more suburban in character, but offer needed services convenient to the motoring public and nearby homes. Within the Hamlet, the few businesses, offices, and churches offer needed goods and services on which the hamlet residents and travelers depend.

Conventional suburban style subdivisions and strip commercial development are land use patterns that should be discouraged within the Commercial Character Area. Design

considerations should be oriented to allow for new development that reduces sprawl, reduces negative traffic impacts on main streets, NYS Route 12 and other major arterials. It would also minimize impacts on the environment, waterfront residential, rural residential, agriculture and forest lands that comprise the small town rural character.

Commercial development should build upon the historic development pattern of the area in which it is proposed. The community should promote projects that display the design features (such as layout and density) of the Village, the Hamlet, and the Town respectively. Commercial development should minimize objectionable noise, glare, or odors, and visually preserve open space characteristics.

Forest/Scrub/Grassland Character Area Considerations

Forest/Scrub comprises the largest area in the Town. The deciduous and coniferous trees provide for much of the area's character. They also create a habitat for wildlife and travel corridors similar to the Farmland Character Area. While many of the Forest areas are uninhabited, they contain many pockets of rural residential and some commercial and recreational features.

Land Uses in the Forest Character Area should retain trees/shrub cover to maintain the desired character. Local regulations should clearly emphasize the importance to the community of retaining specimen or mature trees worthy of protection during development and thereby allowing clearing for forest management or forestry-related activities.

Potential Development Forms: Conventional and Creative

During the Public Meeting and Public Hearing, posters that illustrated development scenarios were presented for open discussion. They illustrate a site before development, then the same site with conventional development and then that site with a creative form of development. Three sets were displayed and examined by visitors: a board with a residential scenario, a board with a residential/commercial scenario, and another board with a Village/Hamlet scenario. Refer to the residential and residential/commercial scenario below from: *Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development – 1988. The Village/Hamlet scenario was from the South County Design Manual, 2001*.

Farmland, Forests, and Residential Landscape Site Data:

Landuse: Dairy farm on a town road

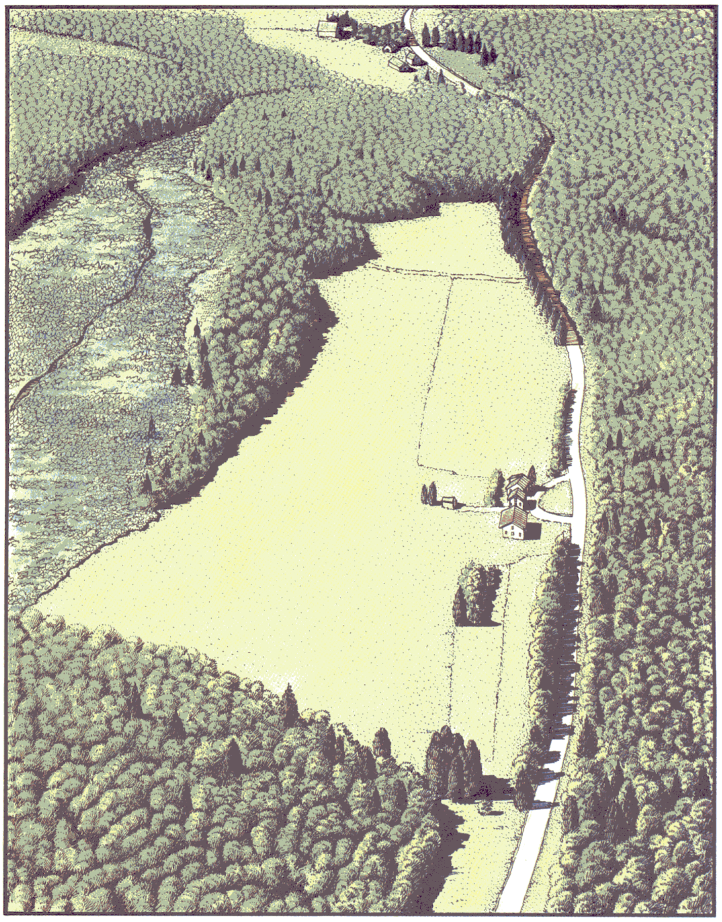
Landcover: Field, wetland and forest

Utilities: No Town water or sewer

Zoning: 1 acre minimum, 150 ft. frontage

- Farmstead located adjacent to scenic town rd
- 60 acres of hayfield leased to neighbor farmer
- 40 acres of wetland and wildlife habitat

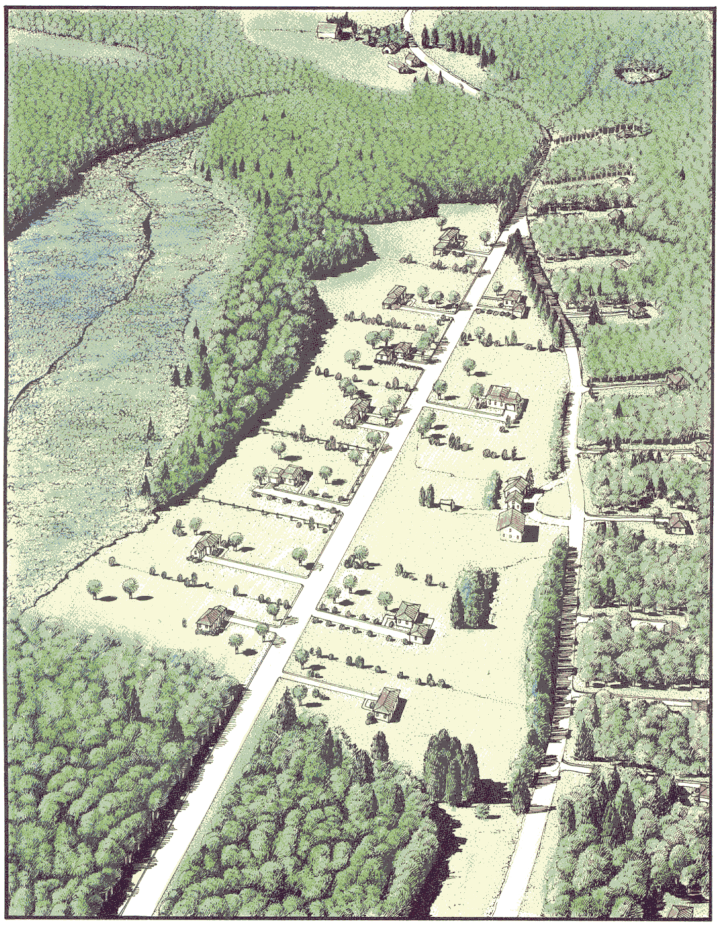
Aerial view of site before development: Farmland, Forests, and Residential Landscape



Aerial View of Site C Before Development

Aerial view of site after potential

Conventional Residential Development

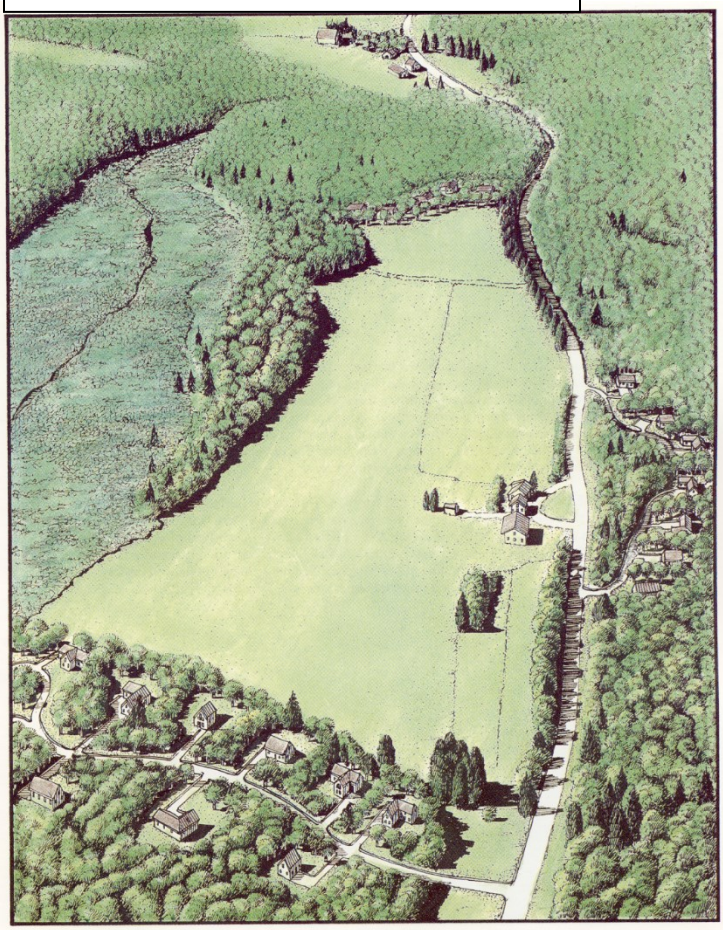


Aerial View of Site C After Conventional Development

The above example of Conventional Development results in the town road being widened and straightened, impacting farmland value and scenery. The developer locates 26 lots on entire acreage affecting most of the farmland and forest. Wetlands and wildlife habitat are then subdivided, thereafter become vulnerable to additional future development. Any future timber management is then precluded by large lot development.

Aerial view of site after potential

Creative Residential Development



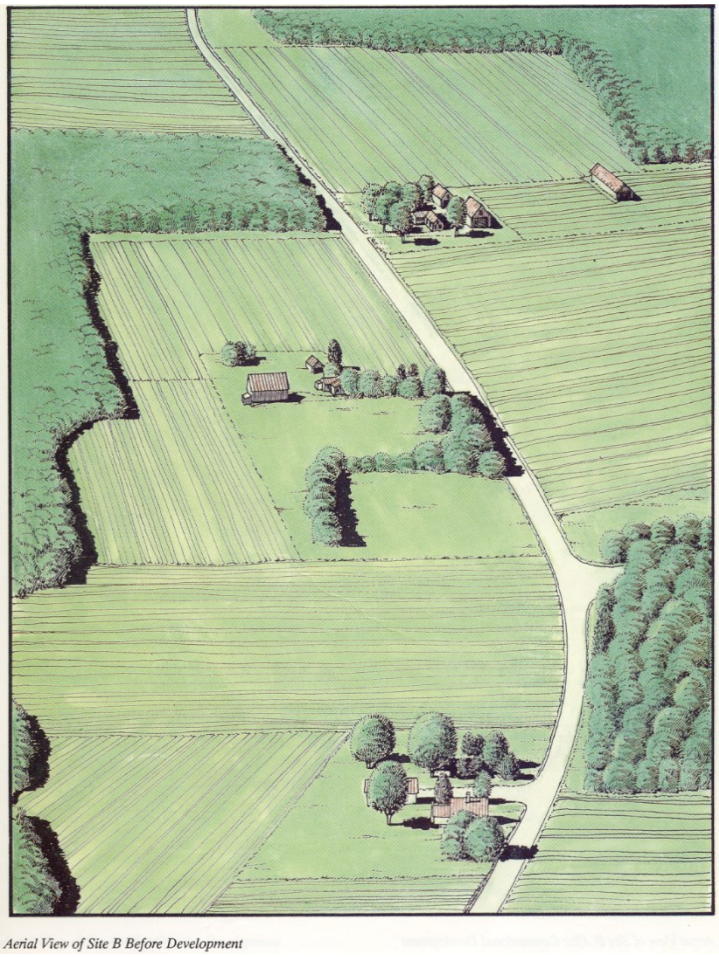
Aerial View of Site C After Creative Development

This alternate example of Creative Development of the same site results in the town road designated as scenic road with moderate improvements within existing right-of-way. The Town then enacts mandatory open space development provision for farmland. The developer locates 28 lots on 24 acres, saving over 100 acres of farmland and forest. Thereafter, the farmlands, wetlands, wildlife habitat, forest, ridgelines and scenery are preserved. This allows the farmland to continue to be leased by a neighboring farmer. It also allows the same amount of development (number of lots) while using 25% of the acreage,

with the leftover allowing significant future farm use.

The next example presented at the Public Meeting illustrated a Commercial & Residential Development Scenario from the same publication: *Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development - 1988*.

Aerial view of a Traditional Farmhouses, Farmfields and Forest Landscape site before development



Aerial View of Site B Before Development

Existing landuses are cropland & farmhouses on a Scenic State Highway with Fields, woodlands and forest as landcover, with Town sewer and water available. Zoning is commercial and large lot residential.

Aerial view of site after potential

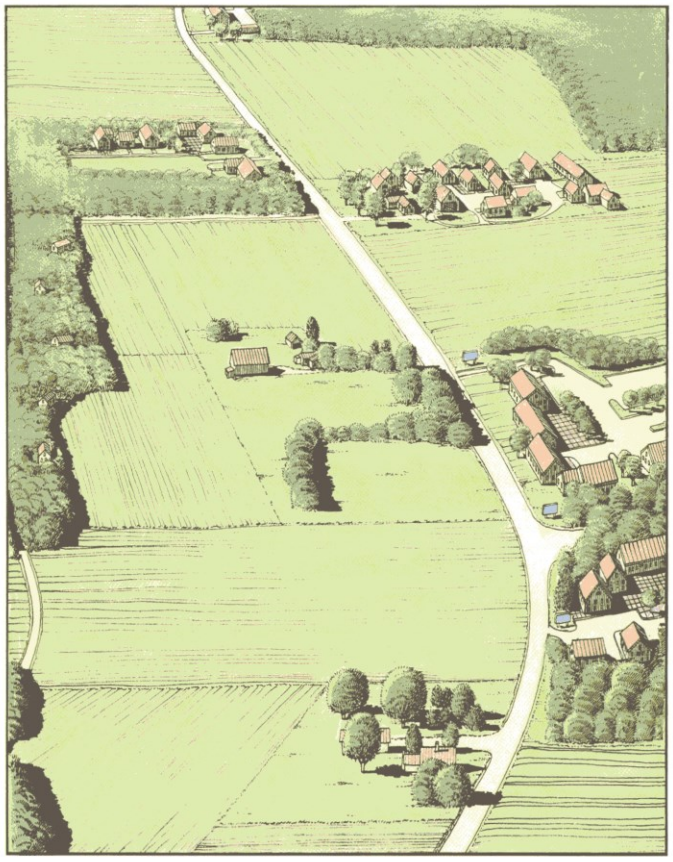
Conventional Commercial & Residential Development

Aerial View of Site B After Conventional Development

Consistent with existing zoning, highway frontage developed with residential & strip commercial lots. Large illuminated signage and parking lots dominate the roadside creating more visual clutter along the highway. This scenario results in a total loss of farmland use, including the loss of rural character and visual quality. It includes a large lot residential subdivision of farmland behind the commercial strip on the new subdivision road.

Aerial view of site after potential

Creative Commercial & Residential Development

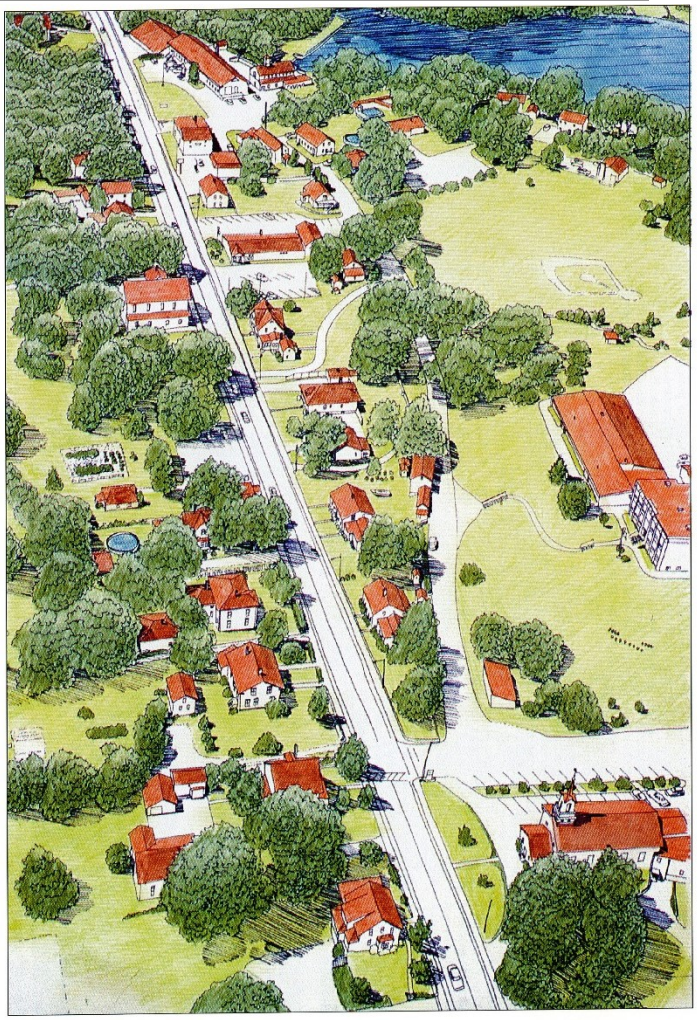


Aerial View of Site B After Creative Development

Creative commercial development would be clustered in the wooded areas and at major intersections. Signage and lighting controls, would also include underground utilities. Parking and storage would be behind buildings. New commercial structures would reflect traditional architectural character of the area. Residential development located within clusters also within wooded areas, and at the edges of farmland. Roads would avoid farmland, which would fit along topographic features.

The next example presented at the public meeting illustrated a Historic Village/Hamlet Development Scenario from a similar publication: *South County Design Manual, South County Watersheds Technical Planning Assistance Project, 2001.*

Aerial view of site before development: Historic Village/Hamlet before development



The historic village/hamlet prior to development has historic homes, commercial buildings, mills, churches, and other buildings along Main St. It has a variety in size, shape, and architectural styles, unified by the scale and function of Main St. Functionally, it is still a 19th century village, with homes, a school, churches, commercial and

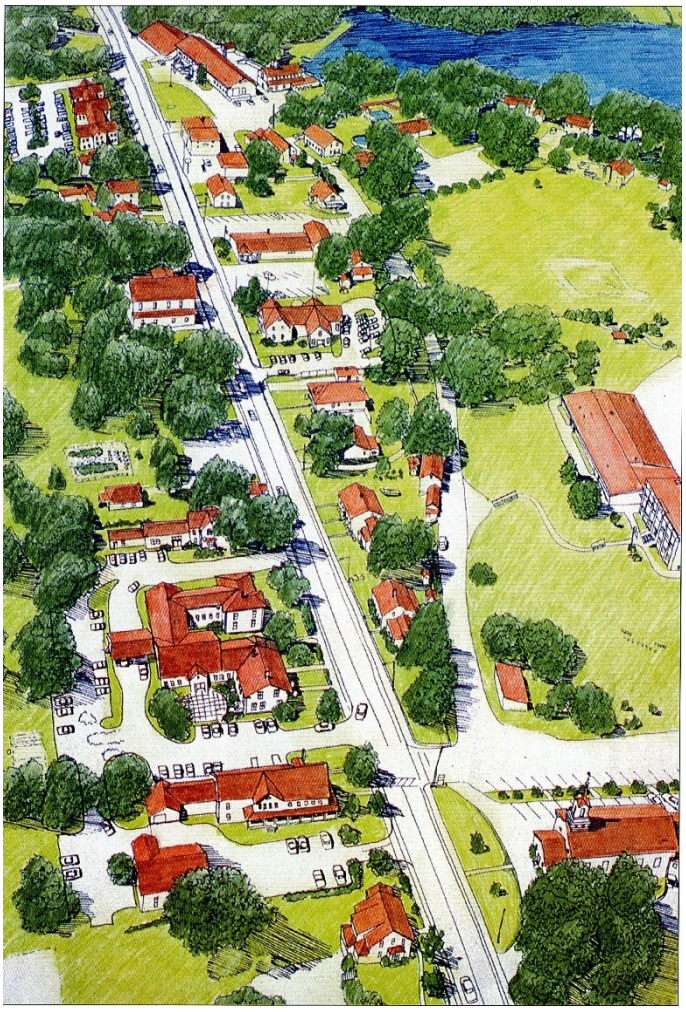
governmental uses in close proximity. Currently it is a walkable community, with a high degree of livability and sense of place.

Historic Village/Hamlet Conventional Infill Mixed Development

Conventional Zoning and Development

Under current zoning in the example Village/Hamlet, lot size and setback requirements, minimum areas for parking, and open space requirements for each building lot make it hard to build anything without tearing down existing buildings and consolidating lots. Typical proposals include front yard parking areas, setback buildings, and separating uses. This tends to increase development costs, limit investment, and as development does occur, it typically does not relate to the existing village/hamlet scale or appearance, and tends to favor the automobile over the pedestrian. Thus it ensures the loss of historic character and architecture remaining in the village.

Historic Village/Hamlet Creative Infill Mixed Development



Creative Infill Mixed Development Design

New uses required to conform to the visual character and patterns of the existing village, vs. the other way around. Keeping a compact, pedestrian friendly environment, while meeting

the demands of the market for pedestrian and vehicular access and parking.

Uses: A mix of residential, commercial, and institutional uses with emphasis on smaller scale businesses that could fit into existing buildings or new buildings at a compatible scale.

Access: Shared curb-cuts and driveway connections between parcels reduce car and pedestrian conflict, allow neighboring business traffic, and improve streetscape appearance. Drive-thru windows and lanes at the rear of buildings allow function, while keeping the streetscape pedestrian friendly.

Parking, architecture and landscape: Parking lots to the side and rear of structures allow buildings to be closer to the street, retained structures with rear additions in compatible styles, shade trees would be added and existing trees preserved to limit parking area views.

Urban and Rural Form

As generalized in Chapter 11, Land Use and Character, development within the Town of Clayton, Village of Clayton and Hamlet of Depauville follow distinct forms that are quite distinguishable in most cases.

Most of the Village follows an urban pattern with straight linear tree-lined streets in a grid pattern with short blocks, concreate sidewalks with curbs, and either flat topography or very little grade changes. Also, urban structures follow uniform setbacks with buildings close to the street and many buildings two stories in height especially within the older sections. Three story buildings dominate along the Village's historic downtown area. Vegetation in urban areas has more regular spacing and is used for shade trees and street framing. Small well-manicured lawns are typically found in more urban areas.

Conversely, throughout much of the Town, roads are more curvilinear following the landscape variation with more rolling hills, escarpments and other landforms. Structures follow varied setbacks as homes have been located to take advantage of views of the water, countryside, or where they historically originated. Vegetation is more prevalent with less formal patterns and as natural buffers have been allowed to dominate. Open fields and irregular shaped larger lawns dominate the area as well.

Urban and Rural Form Zoning Considerations

Zoning considerations in both the Town and Village should preserve and build upon their own distinct character defining elements as described above as well as the following:

Village - Urban Character

- Maintain urban character,
- Uniform building setbacks,
- Gridded street pattern,
- Short blocks,
- Concrete sidewalks with curb,
- Tree lawn (8' minimum)
- Street trees (in the tree lawn)

Town – Rural Character

- Maintain rural character,
- Street/Highway alignment, respond to topography,
- Deep varied building setbacks,
- Clustered street tree planting to screen adverse views,
- Preserve existing vegetation and natural features whenever possible ie. topography, vegetation, wetlands, stream corridors.

Town & Village

Whenever possible both Town and Village should encourage underground utilities within future developments and look for other public opportunities to do the same.

Character Defining Elements

After carefully reviewing the public input from the Town and Village (public input as described throughout Chapter 8, Public Input) it was the committee's opinion that preservation of the Village's and Town's visual character weighed very high on residents/property owners priority lists. As a result, the committee worked to identify those physical features/elements that, individually or in combination with each other, created or comprised that character. It also became clear that what we know as urban sprawl and strip development was not encouraged, or in the Village's/Town's best interest.

Continued reference to the unique character of the Village, and the rural/agricultural character of the Town, led the committee to encourage the Comprehensive Plan to recommend the preservation and enhancement of those two distinct areas of existing visual character.

The following is a list of existing elements within the Town and Village that the Comprehensive Plan committee has agreed should be considered by the Town/Village Board and Planning Board in the next update of both zoning ordinances. The list identifies the physical elements that influence/decide the visual character of a view shed through their presence or absence, organization or placement, and size or mass. They are considered to be the primary elements that need to be addressed to help direct the preservation and enhancement of the Town's and Village's visual character for future generations.

Village/Hamlet Character Defining Elements

Public Domain (i.e. streets/walks)

1. Widths (narrow residential streets)
2. Organization (primarily a grid pattern)
3. Street edge (curbed)
4. Parking (curbside parallel)
5. Small Blocks (measured in 100's of feet)
6. Pedestrian circulation (concreate sidewalks in public domain)

Buildings

1. Commercial
   a. Height (4 and 3 story)
   b. Roof form (flat)
   c. Setbacks (buildings front on ROW line)
2. Residential
   a. Height (2 story)
   b. Construction (wood frame)
   c. Setbacks (uniform and shallow)
   d. Backyard garages/small barns
   e. Roofs (Gabled)

Vegetation

1. Shade trees (in tree lawns)

Topography

1. Street profiles (uniform, geometric)
2. Lawns (Flat geometric plains)

Scale

1. Space (intimate, small, personal)
2. Elements (respect size, material, and mass of surrounding elements)
3. View shed (contained, limited by presence of other character elements, except along waterfront)

Utilities

1. Generating facilities (a few site use solar)
2. Overhead transmission lines (none in Village)
3. Overhead distribution lines (i.e. phone, electric, cable, (Primarily along street corridors) 50-75 foot heights)

Town Character Defining Elements

Public Domain (i.e. roads/trails)

1. Road width
2. Alignment (natural following land form
3. Edge (NYS paved, County/Town stone)
4. Parking (parking lots or areas)
5. Block Size (varied and large, measured in miles)
6. Pedestrian circulation (trails connecting activity areas, concrete walks to internal areas)

Buildings

1. Height
    a. (residences 2 story)
    b. Barns/silos (3 to 5 stories
2. Roof forms (Gabled)
3. Setbacks (deep and varied)
4. Construction (wood frame)
5. Organization (Clustered: barn, house, garage, sheds, silos)

Vegetation

1. Hedgerows (linear)
2. Wood lots/tree masses (clustered, natural)

Topography

1. Road profiles (responds to landform/natural)
2. Alignment (line of least resistance)
3. Natural (free form)

Scale

1. Space (open, natural/informal, expansive, unlimited)
2. Tallest element are agricultural structures, i.e. barns and silos, and vegetation
3. Viewshed (unlimited, not limited or constrained by other character elements

Utilities

1. Generating facilities (small, individual, agricultural wind turbines)
2. Overhead transmission lines (none in Town)
3. Overhead distribution lines i.e. phone, electric, cable, (primarily along highway/road corridors) 75 to 100 feet high

Large Development Proposals and Rural Character

Village/Town - Urban and Rural Character

It is recommended that regulations regarding large development with potentially significant impacts should follow the Character Area and Rural/Urban Form considerations described above, applicable to all new uses and projects.

Projects should also follow the survey input and public input feedback regarding preservation of Clayton's Town and Village Character. This involves objectives extrapolated from the public survey/data, which should meet specific criteria/standards, or address other issues and priorities of the Town. This could also be a method of dealing with future challenges that our Town may face, or develop compatibility tools not adopted yet that may also be useful for the future.

Guiding Principle (Town/Village Rural Character)

No plan or zoning can anticipate all eventualities the future may bring; a plan can only provide a vision and a basis for a path forward. The zoning/land-use laws are the mechanism to achieve the goals of that guidance, but are not always adequate for the unforeseen. Therefore, there is a need for a mechanism of addressing the unforeseen, as well as judging the methods and modes employed for achieving the over-all vision in the plan. One mechanism/method to fill this need is by use of a *guiding principle,* one that can be applicable to all components of a Comprehensive Plan and the accompanying zoning laws that are based in the plan. A guiding principle must be derived from the plan vision/goals combined with the identifiable outstanding common denominators of the public input and survey data. This principle should not be inconsistent with an existing plan,

and should be consistent with any Local Waterfront Revitalization Plan (LWRP) or similar mechanisms the Town or Village has in place.

It is the *character* of the Town, Village and Hamlet that is the single most important common denominator of the data collected. Essentially, the St. Lawrence River is also a major component part of the character of our Town and Village. Responses frequently mentioned open spaces, scenic vistas, culture, agriculture, etc. As such, the guiding principle for future development/land-use/zoning, and a metric for monitoring the strategy-goals in the Comprehensive Plan could be "Protecting, Preserving and Enhancing the Character of the Town/Village/Hamlet".

The guidance for encouraging economic growth, and the type of development/land uses, can all arise from this common denominator and guiding principle of our community's "character". Of course everyone's idea or definition of "character" may be somewhat different or subjective. To define this term for use in a guiding principle,"character" can be viewed as being composed of three components. Identifying each component allows a "snap shot" of that area, which provides a "base line". These three make up the "definition" of our Town "character" used as the guiding principle.

"Character" has three components:

A) Natural. This includes the natural features such as the St. Lawrence and Chaumont River(s), the topography, geology, hydrology, the flora and fauna, in essence all the natural environmental features of our Township and its past history.

B) Physical. This includes man-made physical structures, natural features, major landscape alterations, building architecture and layout, infrastructure and public facilities. Current and past land use/physical conditions are also a consideration.

C) Cultural. This contains the other past and present elements of our Town human and social activity not found in A) or B).

Many elements of our Town that relate to our daily life fit in this category, from demographics to the arts. Cultural is the broadest and most subjective defining component of character, noting the social/societal element of our community. It also contains the most esoteric element of a community that is the *community spirit*, a term that is self-defined by the community, and is quantifiable and measurable by how a community views itself, and treats its citizens, as well as visitors.

By identifying these three components in such a manner, it allows a way to inventory, describe and define what the citizens of Clayton consider to be the *character of our Town.* An example of the application of a guiding principle would be in dealing with questions involving major changes to the Zoning Law or approval of new developments that are not foreseen or not specifically identified as desirable in the Comprehensive Plan or existing zoning. For instance, the Guiding Principle should govern consideration for the landing of MD2 district status, Clayton's primary tool for addressing zoning relief for existing non-conforming use/structures if applicable.

These evaluations it will determine whether the character of the Town is affected positively or negatively, and what use-restrictions or modifications are appropriate in order to grant zoning relief. Maintaining the *character* of the Town, is a balancing act between the limited nature of these properties and the need for zoning use/structure conformity.

Scale of Structures

The overall character of the Town and Village, based on the responses to the survey, and more recent public meeting and written input, dictates that the term "scale" is applicable to what is generally acceptable for future development. This is correlated to public input and the 1998 Comprehensive Plan as well. Scale is a function of the character of the Town and Village as people relate to the scale and architectural mass of structures, expressing a clear desire to maintain the "scale" of development to match the community's existing physical structures. One of the most prominent features of the Town/Village's architectural scale is overall height, followed by mass, form, material, and architectural detailing. Therefore, a height and mass limitation is one of the best tools for maintaining the scale of physical structures. The only structures to be exempt from the height limits under special use are: dedicated communication or emergency communication towers, religious institutions (i.e. steeples), agricultural silos/storage, and on-site usage of small wind turbines. All other structures of any type shall be limited to the current height restriction of 35 feet and a mass prevalent in the developed areas. Variances should be considered as minor, limited, adjustment to buildings.

Expanded Scenic Overlay District

Another consideration is expanding the Scenic Overlay District and its pursuant protections to the entire view-shed and footprint of the Town. The one mitigation that is available for the Town, for scenic or visual impacts to the Scenic Overlay District is the extension of that District and its protection to all areas of the Town's jurisdiction.

' *It is recognized that the scenic value of the Town is not limited to the current Scenic Overlay District, but Is a key part of the quality of life for all citizens, and essential to the over-all scenic experience/value for year round residents, seasonal and visitors alike, across the entirety of the Town. In recognition of the subjective, indistinct threshold of where scenic value may end or begin, it is deemed that the Scenic Overlay District borders should be expanded to be one and the same as the Town boundaries*.'

Planning Project Considerations

The following planning project considerations should be used during development or redevelopment project reviews, updating the zoning law/ordinance, and establishing subdivision requirements. Minimum standards for lot creation, road design and the pattern of development are imperative. Development should be shaped to complement the character of the Town, Village and its hamlet to improve the quality of life for current and future residents.

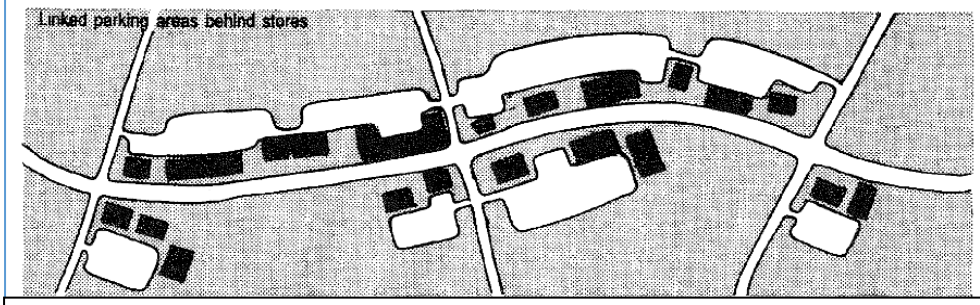
General Planning Considerations

√ **Future growth potential (T)** – Continue exploring funding opportunities to expand sewer and water districts including local capacity. Identify appropriate areas within the Town, Village, and Hamlet for suitable population and employment growth.

For example, appropriate areas for residential, commercial, or mixed use zoning districts should be established in order to enhance development opportunities, providing for additional growth. The area along the NYS Route 12 corridor east of the Village, where several businesses and homes are concentrated could be considered a mixed use district. This would also allow needed services to be examined for feasibility. Similarly, certain areas where residential is concentrated such as NYS Route 12E should be considered for establishment of residential zone, thus reinforcing, preserving and protecting such uses. Existing size, mass, architectural detail and setbacks should be mimicked. Also, areas with services could be targeted for residential and business growth in suitable densities or as mixed use areas.

√ **Attracting growth (T & V)** – It is important to foster appropriate development opportunities that interconnect with existing neighborhoods and business areas. This will improve the overall desirability and destination quality of the community while limiting impacts on existing uses.

√ **Connecting current businesses (T & V)** - New projects will foster traffic/pedestrian connections to existing business/residential areas. This connectivity will alleviate congestion and enhance aesthetics.

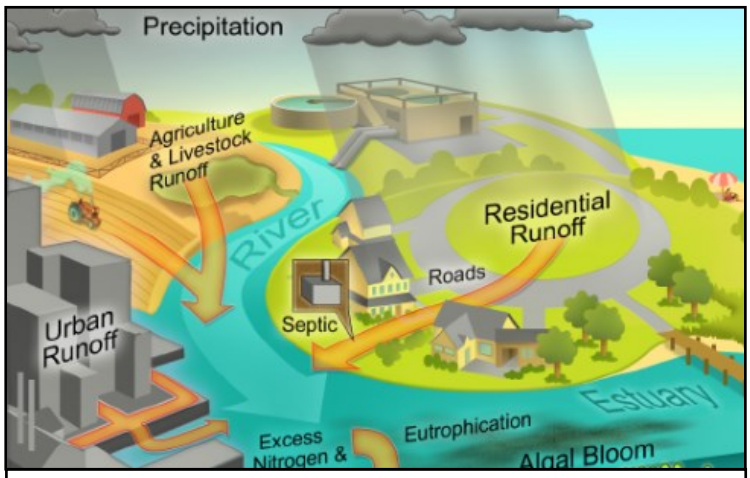


Example: Connecting business parking lots together allows customers to drive to many other shops in the corridor without reentering the highway and interrupting traffic. Such arrangements can be required for new development, expansion of existing buildings, and redevelopment

√ **Curb cut/access management (T & V)** – Use of shared driveway accesses and internal access connections among adjacent businesses are favored over excessive numbers of individual curb cuts with no connections.

✓ **Electric Utilities (V)** - Consider the merit of utilizing underground utilities. This could improve reliability, fire safety, reduce vehicle accidents with poles, and potentially improve aesthetics.

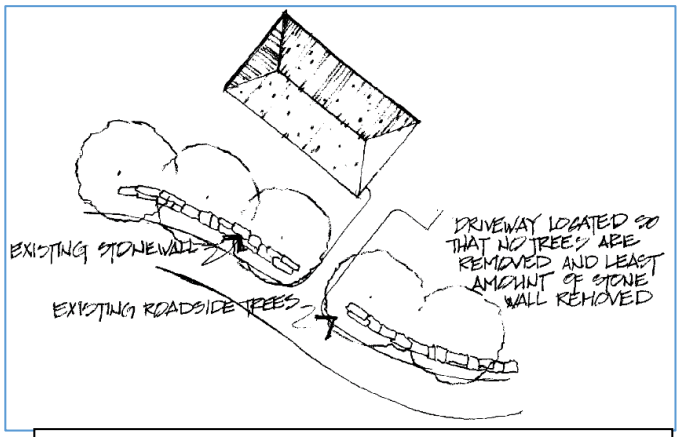
√ **Drainage affects water quality (T & V)** - Drainage facilities should be incorporated onsite and existing drainage systems should be improved to limit storm water impacts downstream or on neighboring properties. Such drainage facilities should include detention and retention, bank stabilization, and safe practices for snow removal and lawn care to keep particulates and contaminants from draining into local water bodies.



Surface water flow example: illustrates common pathways that contaminants can be transported by surface water flow

For example, any substance within the watershed which can be transported by water (e.g. detergents, eroded soil, septic effluent, pesticides, & oil/road dust) can eventually reach the river, stream or lake and affect water quality. It is not only shoreline uses, but activities anywhere within a lake or stream's watershed which affect water quality.

AN EXAMPLE OF A BUILDING OUT OF SCALE AND CHARACTER WITH THE EXISTING BUILDINGS ON EITHER SIDE.



Example: Existing features to design site around vs removal

√ **Existing features (T & V) –** Existing character features such as roadside trees, stone walls, tree lines, fencerows (which often have trees and fences of some kind), should be preserved (or disturbed as little as possible). Such features serve to retain the rural character of roads.

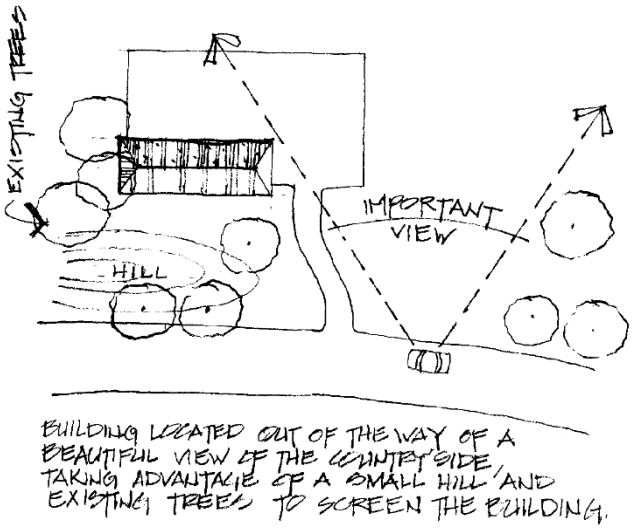
√ **Historic building form & styles (V) -** Where appropriate, consider guidelines for historic compatibility in the Village and Hamlet when new developments are proposed and when reuse of existing buildings/homes occurs.

In historic districts or areas with a predominant style, form or scale, new structures should be required to echo the scale, style, form, rhythm and character of the neighborhood. Don't locate a one story building in a three story block or a concrete-sided building on a street of wooden sided buildings. Consider consistency with size and materials whenever a new building is proposed, or when renovations that could affect the appearance of an existing structure are proposed.

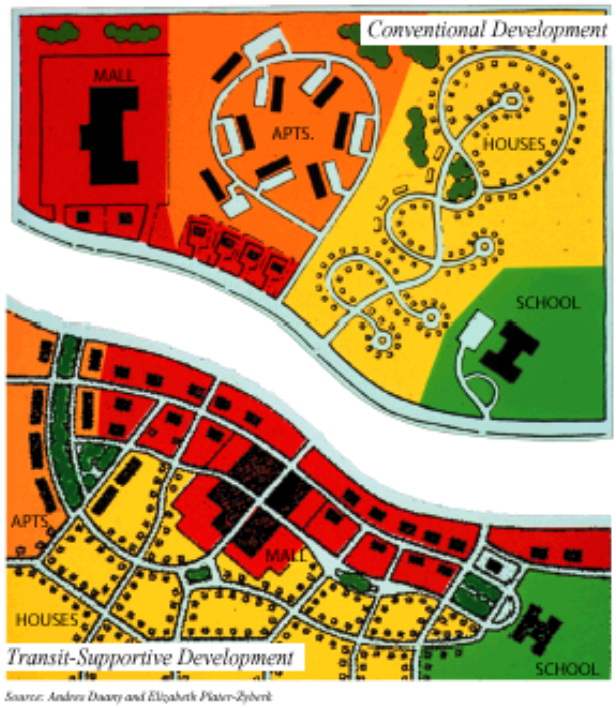
√ **Mixed use buildings and projects (T & V) -** Compatibility could include mixed use developments where feasible to include the historic pattern of services/employment centers with residences above or nearby, to allow enhanced pedestrian opportunities and decreased traffic congestion similar to the Village and Hamlet.

For example, interconnected mixed-use projects allow pedestrians to live and walk to nearby work and entertainment opportunities or to needed goods and services without having to drive distances to do so. This limits traffic congestion and parking demand.

√ **Building placement (T & V) –** Buildings should be sited so that obstruction of important or priority views from roadways, sidewalks, and parks will be minimized. This can be achieved by taking advantage of topography or existing vegetation in the Town, Village, and Hamlet.



√ **Green Infrastructure (T & V) –** This is an approach to storm-water management that protects, restores, or mimics the natural water cycle. Rain gardens or bio-swales can be included in medians and along parking lot perimeters, benefits of which include less water runoff, heat island mitigation, and a more walkable and pedestrian friendly environment. Permeable pavements also reduce runoff most of the year.

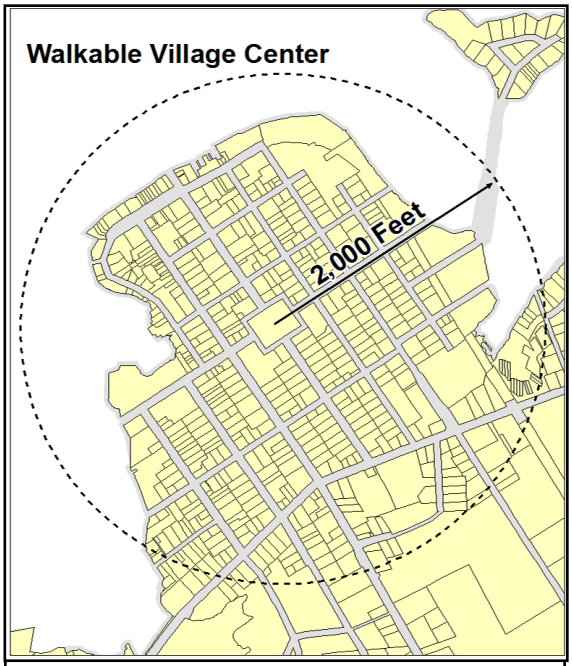


Source: Andres Duany and Elizabeth Plater-Zyberk

√ **Pedestrian scale or walkable to\from (T & V) –** where feasible, within the Town, Village, or Hamlet foster walkable projects that include sidewalks and pedestrian paths, within walking distance (which varies) from other destinations, and are in scale with village businesses and residential areas. Within the Town, pedestrian pathways or trails connect use areas that may be well beyond walking distance.


Green parking with rain garden

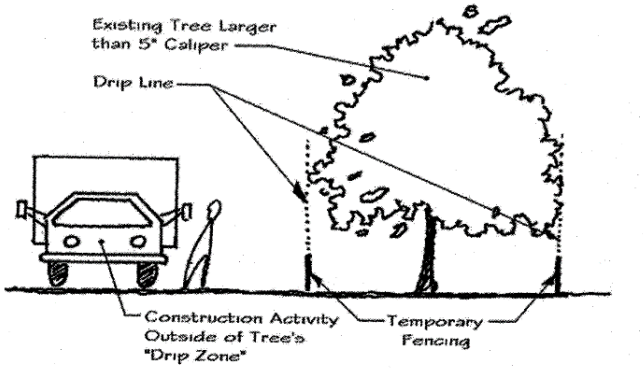
The following walkability standards are recommended: homes within ¼ to ½ mile of most services; elementary schools within ¼ to ½ mile of homes; parks within an eighth to ¼ mile of homes; downtowns should provide a balance of retail and commercial stores and services, e.g., hair salon, hardware store, pharmacy, grocery/deli, restaurants, clothing, post office, library, town\village offices within ¼ to ½ mile of the community center. Areas not being used by pedestrians should be assessed to determine possible reasons for lack of use.



A compact mix of residential and business uses and a continuous pedestrian network within 1/4 mile to 2,000 foot radius of a central green park encourages walking for short trips, to downtown destinations, the school, churches, and throughout several business areas.

√ **Retain existing trees and vegetation (T & V) –** When **e**xisting trees and/or vegetation are considered to be mature, healthy, and desirable they should be preserved/protected during the construction process.

√ **Underground Utilities (V) –** Utilities for new development should consider the benefits of underground placement. Not only do they improve property values with improved aesthetics (removal of unsightly poles and wires), they also provide improved reliability during severe weather, resulting in far fewer power interruptions, have fewer motor vehicle accidents, and reduce live-wire contact injuries and fire hazards.



TREE PROTECTION DURING CONSTRUCTION

Residential Project Considerations

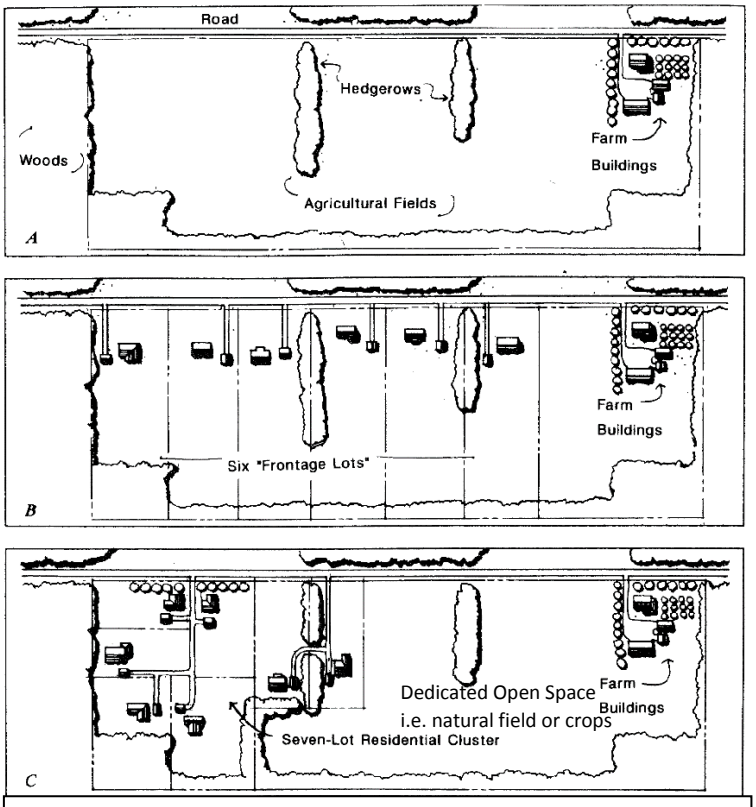
√ **Building setbacks vs build-to lines (V)** - Within the Village and Hamlet, different setbacks could be used depending on the prevalent pattern in the area. In some cases shallower build-to lines that maintain the small historic front yard pattern with larger rear yards should be required to maintain historic residential and business patterns close to the street. In less dense areas where primary buildings are further from the road, larger setbacks could be maintained.

√ **Highway frontage development, vs new roads/streets (T & V)** - Strip development should be discouraged where possible in the Town, Village or Hamlet, in order to preserve/enhance existing urban/rural character and to maintain traffic carrying capacity of arterial and collector streets. Therefore, new streets or local streets should be used for new development when decision compliments desired character.

Lots that are created one at a time along a main highway can slowly alter the character and function of the arterial road. As each fronting lot creates a subsequent driveway access, it allows another potential conflict point and reason that traffic must slow down or face either an oncoming automobile or exiting vehicle that may be decelerating or accelerating which ultimately affects traffic flow.

√ **Clustering (T)** – Clustering of businesses or homes should be encouraged where feasible to limit strip development and allow open space character and farming activities to be preserved while desired growth occurs.

For example, with a typical half acre lot, 20% (4,300 sq. ft.) could be dedicated as open space and 80% (17,000 sq. ft.) to lot size. For successful clustering, adequate septic systems or access to sewage disposal can be essential. Placing homes near one another also minimizes the installation and maintenance costs of roads and utilities, and allows a better sense of community.



Clustering vs Frontage Lot Development example: On unwooded sites, such as open fields or pastures it is even more important to encourage clustering of new development. Even on relatively shallow sites where there is little opportunity to locate home far from the road, such as against a distant tree line, clustering principles can help reduce roadside clutter and preserve some open vistas. Sketches from Managing Change a Pilot Study in Rural Design and Planning , 1992

√ **Pedestrian scale or walkable to\from (T & V)** Where feasible in the Village, Town or Hamlet, foster walkable projects that include sidewalks (Village) within walking distance from other destinations, and trails or pathways (Town) that connect use areas, and are in scale with nearby businesses and residential areas.For example, pedestrian scale typically balances pedestrian

and vehicular needs while providing comfortable environments for people to assemble and associate with others. Community design should be human-scale with services within reasonable distance from one another.

In the Town (outside the village or hamlet), pedestrian/biking trails should connect use areas (neighborhoods, parks, shopping areas, recreation areas, etc.) to residential neighborhoods, however, not necessarily to each unit like urban sidewalks.

√ **Dead-end streets vs loop streets (T)** - Dead end streets should only be used to access a limited number of homes (less than twenty), after which a second connection should be provided to an arterial or collector road. For example, if the single access became blocked by an accident or incident and an emergency occurred in a subsequent house further up the single access road, getting to the 2nd emergency could be delayed or even blocked off entirely for a period of time.

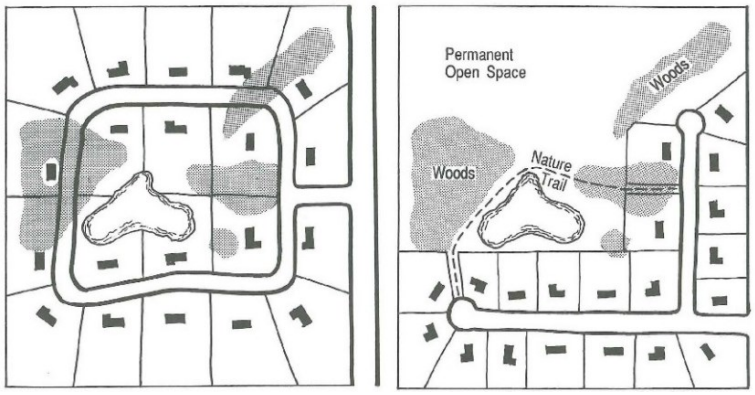
√ **Hamlet/Village lot sizes, smaller vs larger (T & V)**

Where feasible, smaller lots should be required to maintain the historic residential and business density in and near the Village and Hamlet with housing and business patterns close to the street to maintain pedestrian scale development.

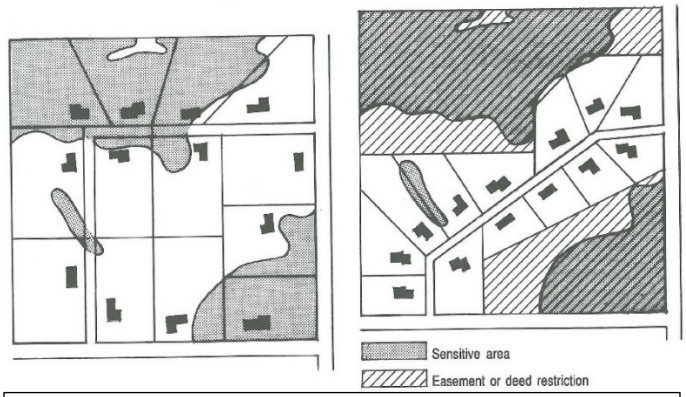
√ **Cost effective services (T & V) –** Infill projects should be encouraged where services exist, or where possible, municipal services should be laid out in a compact manner to limit future maintenance costs.

√ **Future infrastructure needs (T & V) –** Future infrastructure projects should be encouraged to maximize the number of users and should be located within desired growth areas.

√ **Connections between housing areas (T & V)** Residential developments should be connected by internal road to limit trips onto the main traffic artery, also shared driveway accesses are favored over an excessive number of curb cuts. Refer to the curb cut/access management image.



√ **Preserve open space/sensitive lands (T & V) -** Open space and sensitive lands in the Town or portions of the Village can be preserved by requiring the project to identify and set aside such areas and allowing smaller house lots in those cases. This improved layout often leads to a more marketable project, with open space areas and trails often that can be shared by the residents.



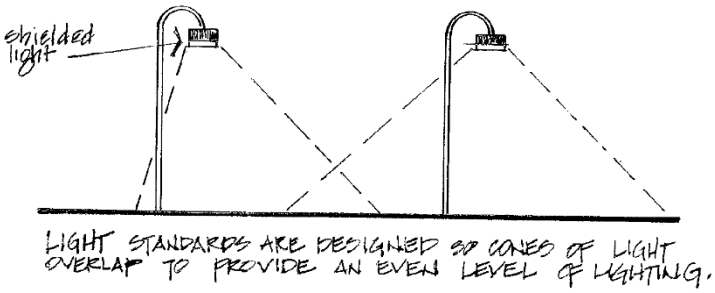
Conventional two-acre lot subdivision with homes located on sensitive but buildable land, compared with improved layouts protecting those resource areas.

Commercial Project Considerations

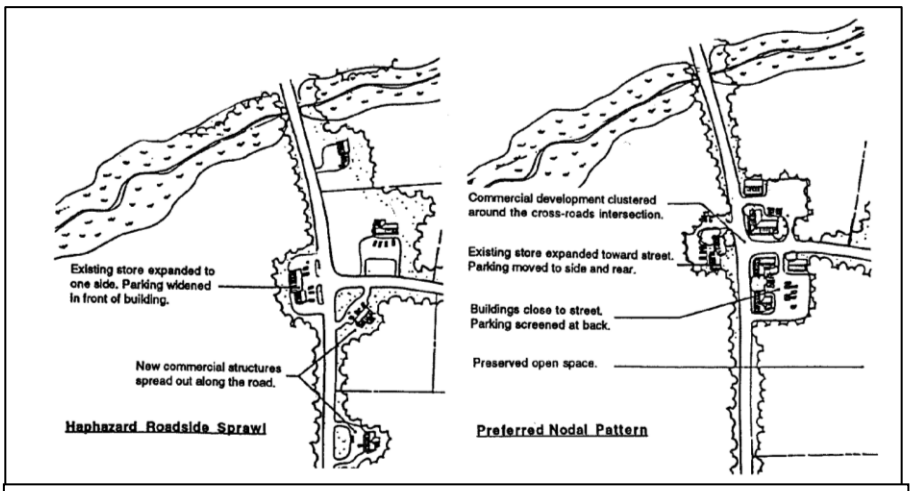
√ **Connections between parking areas/developments & shared access (T & V)** - Developments should be connected by street access or parking lot connectivity to limit trips onto the main traffic artery, also shared driveway accesses are favored over an excessive number of curb cuts.

√ **Lighting (T & V) –** Lighting should be used where appropriate, however, over-lighting and excess glare should be avoided, especially onto neighboring properties and public roads. Shielded or cutoff lights should be used to minimize lighting spill-over.

For example, lighting should be controlled in both height and intensity to maintain rural character. Light levels at the lot line should not exceed 0.2 foot-candles, measured at ground level. To achieve this, light fixtures should be fully shielded to prevent light shining beyond the lot lines onto neighboring properties or roadways and located away from the property lines.



√ **Landscaping (T & V)** – appropriate landscaped buffering should be used to soften parking area edges and buildings, including screening views between uses –where needed and partially screen views of parking areas from public roads or neighbors.



Two alternatives for arranging commercial development along a highway example: Strip versus node. Within the preferred node, stores are located toward the front of their lots, with interconnected rear parking provision vs the roadside sprawl example.

Example of landscaped buffering levels at a site:

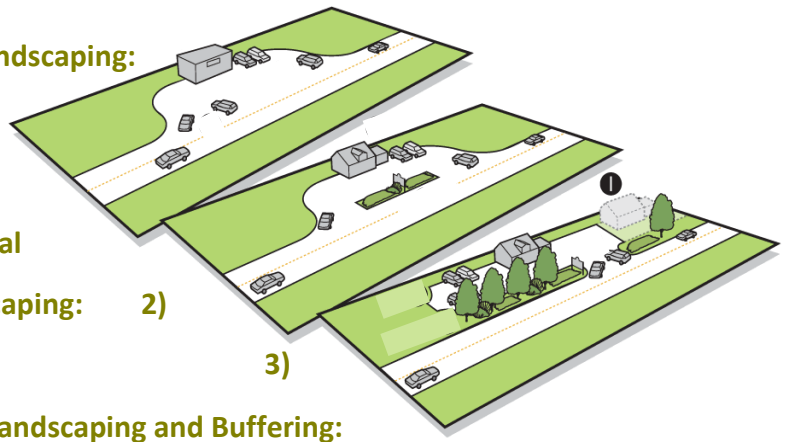
No Landscaping:

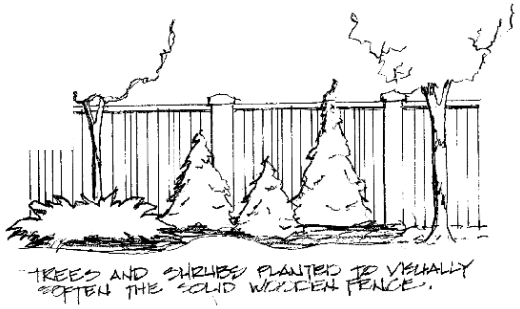
1)

Minimal Landscaping: **2)**

3)

With Landscaping and Buffering:





Images: Dutchess County Planning

Unsightly views, such as rear storage or loading areas (left drawing), can be screened with natural combinations of evergreens and low plants or berms (as demonstrated to the right).

√ **Building setbacks (T & V)** – Maintain current setbacks in business areas with build-to lines.

For example, setbacks often push new buildings away from roads, fostering a contrasting character and anti-pedestrian pattern than historical patterns of development, especially in the Village and Hamlet. Build-to lines require buildings to be placed closer to the street, allow parking to the side and rear, and create a pedestrian friendly streetscape.

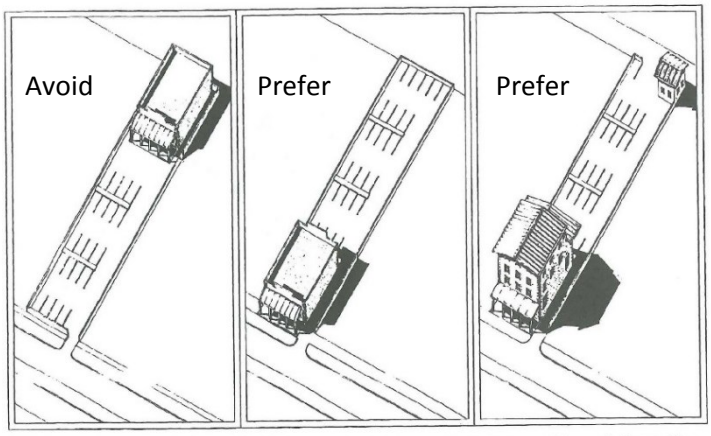
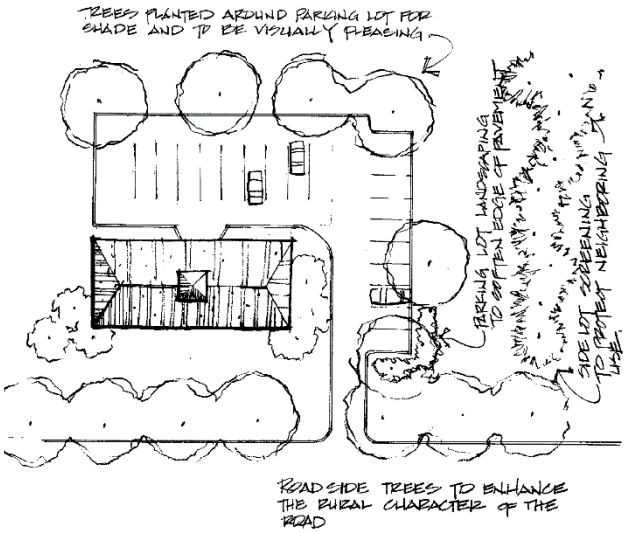


Figure 9–10. Alternative locations for buildings, parking, and access, Davie Settlement, Broward County, Florida. *Source:* Dover et al., 1990.

√ **Maximum/minimum building heights (V)** – Consider building heights compatible with current Village business and residential buildings to maintain historic patterns and community character.

√ **Parking to the side or rear (T & V)** – The bulk of parking areas should be smaller, distinct areas to the side or rear to allow closer building placement to the road in order to maintain community character, reinforce the visual presence of building as opposed to parked vehicles and the pattern of buildings along the roadside.

Example of Parking to the side and rear



√ **Pedestrian scale or walkable to/from (T & V)** Foster walkable projects with buildings near the street that include sidewalks in the Village and trails or pathways set back from highways in the Town, especially within walking distance from other destinations.

√ **Signage (T & V)** – Signage should not all look alike, however, size, type, materials, condition, height and colors are considerations when bearing in mind their design. Effectiveness can be enhanced by proper placement, use of plant materials, and creating distinct views of signage.

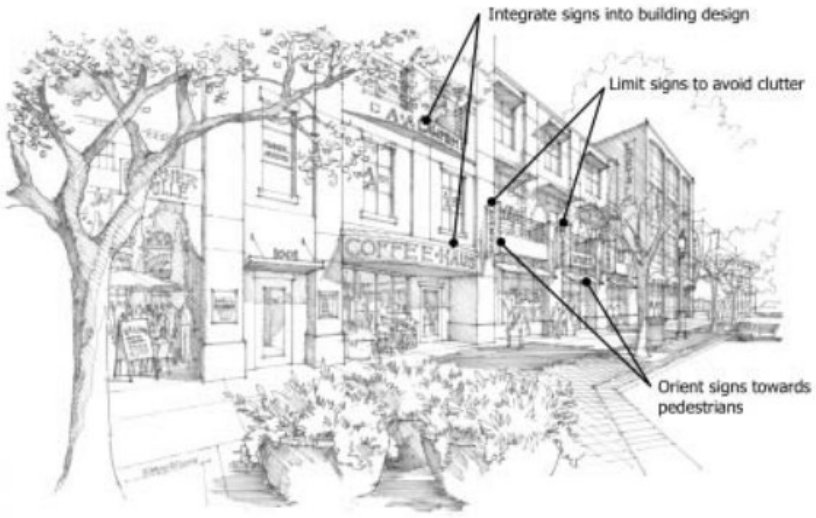
A good sign passes three tests:

1) conveys its message clearly and quickly;
2) Compatible with the structure and its surroundings;
3) Promotes the visual image of the community.

Signage should be an integral part of the building detailing and reflect the particular building style.

Where appropriate, only adequately sized signs should be used (consider letter size and total sign size based upon the speed limit), with a total size allowable limit to ensure efficient signage. Within hamlet areas and slower speed limit zones, smaller, and lower signs should be used. Free standing signs should consider lower monument style.

Glare from all signage should be minimized. Internally lit signs (with dark background) could be constructed to limit glare. Except for directional signage, limiting off-premise signs along the Great Lakes Seaway Trail Scenic Byway should be considered (or where sign clutter is a concern, i.e. too many signs present).



Example of signage integrated into the building design

Sign lettering should be of a size and style that is clearly legible for passing motorists, but not distracting enough to be hazardous. Target audiences are paramount. Signs along pedestrian facilities should be smaller as pedestrians have more time to view a given sign.

For example, Saratoga Springs, New York, regulates freestanding signage based on speed limit: downtown area is limited to twelve feet in height and twelve square feet in area; other districts within areas of higher speeds such as those 44 mph and less, twelve feet in height and twenty-four square feet; district areas with speed limits of 45 mph or greater, twenty feet in height and forty square feet in size.

Wind Energy Conversion Systems (WECs) Considerations

Human Health and Safety

One of the foremost duties of any Township is to protect the health and safety of its citizens. There are potential negative impacts to the health and safety of the public as a consequence of a Wind Energy Conversion (WEC) development. The size and scope of a viable WEC project would encompass a major portion of the Township. Over the last two decades the rural road frontage of the Town has seen a steady increase in residential use and relative density. This increase in rural population density is accompanied by seasonal residents, which increase during the spring, summer and fall months.

While a less populated area can limit potential negative impacts to human health and safety, the Town's steadily increasing rural population and transient seasonal activity, increases the likelihood of potential impacts. There are possible mitigations of these effects, but they cannot address all impacts, which are multiplied by an increasing population trend.

These potential impacts can include, but are not limited to, visual impacts, auditory/noise impacts, shadow flicker, blade throw, ice throw, pulse and multiple other physiological changes to the human body. Several potential impacts are identified in and supported by multiple peer-reviewed case studies.

Local Waterfront Revitalization Program Consistency

The Town and Village of Clayton's New York Department of State certified Local Waterfront Revitalization Program (LWRP) has specific protections and considerations regarding the Scenic Overlay District and identified "gateways" (Rt. 12 and 12E). These could be negatively affected by WECs potential impacts to the view-sheds, impacts that could only be mitigated by location. Turbine structures with the height and scale of modern WECs industrial turbine technology could be considered to be incompatible with the LWRP scenic protections, seriously limiting potential locations. Within the LWRP, the Rt. 12E corridor is the Great Lakes Seaway Trail, also designated part of a National Scenic Byway, and both scenic designations could be adversely impacted by a WEC.

The scale of a modern WEC facility would clearly impact the LWRP identified NYS Rt. 12 gateway, and impact large areas of the LWRP identified view-shed (from the water and from land) as turbine heights are typically 2-3 times the overall 200' +/- elevation change of the Town's topography. The rural areas of the Town contain the higher average elevation and it is these areas that are being investigated as the logical locations for WECs. This relative flatness of the Town reduces the effectiveness of potential visual mitigation from topography. Therefore, WECs meet the intent to be

subject to evaluation/re-evaluation in a Waterfront Revitalization Area (WRA) assessment form, and the pursuant authorities under the LWRP. Based on the size, scope and the nature of typical WECs, it is questionable if these scenic impacts to the LWRP and gateway corridors could be acceptably mitigated.

The potential impacts to the LWRP priority areas, dictate that WECs should also comply with the LWRP Local Waterfront Consistency Review Law. In defining "actions", the LWRP can include the following: "Projects or physical activities, such as construction or any other activities that may affect natural, manmade or other resources in the Waterfront Revitalization Area (WRA) or the environment by changing the use, appearance or condition of any resource or structure." The type of actions/impacts that a WEC can generate, can qualify as affecting the WRA regardless of its location in the Town.

This type of development is also inconsistent with the strategy of the Chaumont River Corridor (CRC) LWRP, a first in the state collaborative LWRP involving multiple Townships (Orleans, Clayton, Lyme). The CRC LWRP strategy in the community vision states: "The Chaumont River Corridor will be recognized for its rural character, history and vibrant community spirit." WECs could have severe adverse impacts on this vision as well.

Economic Impacts

The limited potential economic benefits of WECs, which are not guaranteed, are deemed to be far less positive than the clear potential for major negative impacts to the Town's human health and safety, LWRP priority areas, and the local and regional economies. These conclusions are based on, but not limited to, the following sections:

1. Tourism and Scenic Impacts

There are a number of potentially negative impacts to the main economic driver of the Town, which is tourism, largely based on the Town's scenic elements. Many business owners in the Town have expressed their fear of the negative impacts on tourism that a WEC could have on the overall scenic value of the Township, particularly on the Rt. 12 corridor. These impacts can substantially affect future economic benefits tied to the scenic tourism values of the Town. For example, one of the fasted growing sectors of tourism is "ecotourism" which relies entirely on the natural setting and environment. A large WEC development within the gateway entrance to the Town could negatively affect this aspect of the Town's tourism base.

2. Adverse Impacts to Fort Drum

The most dominant economic force in the region is the Fort Drum military installation. There could be major negative impacts to Fort Drum associated with near proximity WECs.

According to a Watertown Daily Times article published May 25, 2016, Fort Drum officials have "expressed some concern" about the effects of wind turbines on its operation. Though its radar technology can mitigate some of the turbine's effects, the post said it is not a complete solution. According to Fort Drum officials in the May article, "wind turbines have the ability to negatively affect instrument approaches by encroaching on the traffic patterns aircraft are using via air traffic radar for extended final approach courses". Ultimately, the U.S. Dept. of Defense is responsible for reviewing the impacts of any wind energy project on the operation of any military facilities.

3. Impacts on Property Values

A negative impact to property values is a potential consequence of this type of development. Studies have shown that utility scale land based wind farms in close proximity can reduce residential property values by up to 14 percent (higher in some more recent studies). While negative impacts of property values may be less apparent in other areas of N.Y.S., in a unique Town and regional setting such as Clayton, with very expensive shoreline property values, the negative impact is more likely to be felt here than elsewhere.

4. Impacts to the General Economic Conditions

While the potential positive impact of a WEC project to the tax bases of the Towns of Clayton, Lyme and Orleans, the County and the impacted school districts cannot be ignored, the corresponding negative impact on the Town's tourism industry could easily exceed any positive effect.

Time and time again, the residents and business owners of Clayton have voiced their displeasure over a potential WEC facility at public hearings of the Planning Board, the Town Board and the Comprehensive Plan Committee.

Ultimately, any siting decision for a WEC facility will be made through the Article 10 proceeding, but the wishes of the local residential and business community should not be ignored. The economic future of Clayton is based on tourism and the impact of a WEC facility at the gateway to Clayton would not be positive.

5. Agricultural Economic Impacts

In many areas, WECs are looked at as a means of supplementing agricultural property owner's income to some degree, and therefore are assumed to outweigh any negative impacts. However, the formula's applicability is location specific and not universal, particularly in areas dependent in large part on tourism. The positive attributes, posited for WECs for agriculture and local agricultural economic stability cannot be viewed in a vacuum, as it is not the sole or dominant economic driver of the Town's highly integrated economy.

There is no doubt that WECs provide substantial income to the land holders, who generally own large tracts of land, usually dedicated to agriculture. But this positive economic benefit can be outweighed by the

negative impact to the surrounding property owners, and a negative impact on a tourism-based economy. Any monetary support WECs provide to leaseholders may potentially support a farmer's ability to continue owning the property during hard times. It can, however, directly increase the incentive to remove land from production, as direct agricultural practices are no longer necessary to profit from farmland. On balance, it is probable that in this location, WECs, though potentially boosting the leaseholder's ability to maintain possession of property, can create negative pressure on the overall Town's economy.

Environmental Impacts

There are many potential environmental impacts of WECs and other large projects. The Town of Clayton is part of a unique regional setting that includes rare and fragile environments. The potential impacts to the Town from large industrial projects can have both foreseeable and unforeseeable negative consequences which must be addressed. These impacts include:

1. Potential Impacts to the Alvar Environment

The impacts of a large scale development, such as WECs, are potentially extreme and substantial to the area's fragile alvar landform. The alvar hydrology is extremely fragile, with little to no soils overlaying the limestone bedrock, and any project requiring blasting, combined with the surface disruption of service roads, can have negative and permanent impacts to the aquifer/hydrology.

2. Potential Impacts to Wildlife

The human health effects, as cited earlier, could have a similar impact on native wildlife, including endangered species, threatened species, and species of concern.

3. Potential impacts to Avian and Bat Wildlife

These potential impacts include, but are not limited to, strikes, disorientation from lights, low frequency sound, low pressure pulses and avoidance behavior. They can also impact endangered or threated avian and bat species in and around critical habitats within the Town of Clayton.

This area provides nesting, feeding and resting habitat for waterfowl. The lake plain and escarpment, especially where they are located relatively close to Lake Ontario, define important avian migratory flyways, providing crucial resting and feeding areas during migratory periods, and critical airspace for migrating birds. They also provide important and unique nesting and wintering habitats for critical avian species, including the American bald eagle, short-eared owl, northern harrier and other species of conservation concern.

French Creek Wildlife Management Area, as well as the St. Lawrence River, its shorelines and many islands, are a main destination and feeding grounds for bald eagles, and crossing the airspace of the Town is a daily pattern for eagles. WECs promote risk for the eagles or

other endangered and resident avian species, as well as impacting the general migratory patterns of the area's transient avian population. The Township's other river, the Chaumont River, has nesting eagles below Depauville that traverse this same airspace.

The Migratory Bird Treaty Act of 1918 (MBTA) has international protections for a substantial number of birds found in our region, both common and rare/ endangered. WECs that are located within a sensitive migratory corridor can substantially impact the ability to maintain the healthy number of species using these flyways.

While more specific information on bat distribution and overall ecology may be needed in our region some things are apparent. It is clear that bats in general, some species more than others, are extremely vulnerable, particularly to collisions with WECs. Threats from such development when combined with factors such as white nose syndrome, habitat destruction and pesticide impact, constitute severe impediments to the continued existence of these animals.

5. Noise Pollution

Outside of the health effects mentioned earlier, there are multiple sound components of WECs that can potentially be deemed undesirable under the heading of "noise pollution." This includes effects that are regarded as nuisance level, distracting, or have impacts that intermittently or consistently overwhelm the typical ambient background sounds and levels. It also includes the potential sound effects to citizens within the area of windfarms that may have direct health and safety impacts. Illustrative of these potential negative impacts are during the relatively low ambient sound levels occurring in winter, at dusk and at night. WECs can produce some of the greatest increases over ambient sound levels, crossing the threshold into nuisance or noise pollution.

6. Light Pollution

The scenic value within the region does not end at sun down, nor do all the visual components of the quality of life end at nightfall, for both rural and river areas of the Town. The night skyline is the most prominent feature of the after dark scenic quality and the most under threat by light pollution. WECs must comply with Federal Aviation Administration (FAA) warning light standards, leading to multiple lights encompassing a significant portion of the Town's visible skyline. WECs warning light technology advancements may produce an FAA acceptable lighting that illuminates only when an aircraft is in proximity. However, the airspace in and around the Town is used frequently enough by civilian, commercial and military aviation to substantially negate the mitigation of this technology. One only needs to view Wolfe Island to appreciate WEC's impact during hours of darkness.

7. Creation of Low Level Aviation Hazards

WECs could create a substantial low level aviation hazard. The Town of Clayton, like much of the region, experiences fairly frequent low level aviation activity, including private, commercial, emergency service and routine military training flights during the day and nighttime. The Town contains one active airstrip (Ritchie Airfield, 35808 NYS Rte 12).

The general air traffic consists of recreational and commercial small plane traffic, recreation balloon flights, helicopter traffic for recreation and emergencies, various police agencies, border patrol and other Homeland Security agencies, Coast Guard and Department of Defense (DOD) flights.

Although this impact of WECs on aviation is regulated by the Federal Aviation Administration, many times emergency medical flights must occur in poor visibility conditions, such as fog, rain or snow, in both daylight and after dark, when visibility decreases exponentially. The addition of WECs can substantially reduce the safety of flights in those conditions.

8. Preservation of Open Spaces

Preservation of open space is an identified goal in the 1998 Comprehensive Plan, the Town Local Waterfront Revitalization Program (LWRP) related Law and the Chaumont River Corridor LWRP strategy. Preservation of open space is a key to the Town's rural character, a major element of our Town's identity. The open spaces function as "green spaces", including woodlands and agricultural areas, vital to quality of life issues. They also play a large role in absorbing atmospheric carbon, a major element in climate stabilization. These spaces also function as components vital to the Town's and the regional environmental health and sustainability. Preserving open spaces is a basic component of "smart growth" policies. It is reasonable for a Town to determine the subjective elements of what constitutes open space, as it varies by degrees depending on local conditions. Many structures of Clayton's typical scale would, if added to the open spaces, be considered as having a negative impact on the view-shed. Larger scale structures such as WECs and other large renewable energy facilities cannot be reasonably considered as protective of open spaces. Open spaces are protected by minimizing development of man-made structures, and facilitating healthy economic conditions for rural property owners, such as the ability to sell development rights or conservation easements, localized incentives that directly promote green spaces. This impact or loss of open spaces is incompatible and inconsistent with goals and\or laws that seek to preserve and protect the open spaces of the Town of Clayton.

9. Hydrological Impacts

There are multiple impacts to the general hydrology that can result from WECs, both temporary during construction and long term or permanent impacts. These can affect the surface hydrology and the

subsurface aquifer directly, as well as indirectly impacting the overall watershed. A large area of the Town is considered to be shallow soil alvar terrain, a form of Karst topography that demonstrates a highly sensitive hydrology. The nature of the bedrock aquifer creates susceptibility to disturbance well beyond the footprint of the disturbed area. Ground water in the bedrock is primarily stored within, and flows along, fractures. Heavy disturbance of the surface and subsurface bedrock in a location can affect these bedrock hydrological storage/flow structures over distances by altering, blocking or collapsing of these structures. Disturbance of that magnitude is quite probable given the need for blasting/excavation to accommodate large renewable energy projects such as WECs foundations, and the altering of surface and subsurface drainage patterns from foundations, access roads and utilities. There is a reasonable expectation that the construction and presence of WECs in this geology and hydrology can affect the aquifer. There are additional hazards in this area's geology for replacement wells, such as a risk of introduced contamination from substantial bedrock disturbances. There are incorporated into limestone bedrock, areas of salt deposits or saline brine, sulfur or mineral brines that can be exposed and introduced into the aquifer structures, creating downstream contamination of potable water requiring treatment.

Preservation of Agricultural Lands

The Town's 1998 Plan lacked a key component of what NYS guidelines now recommend to be in a Comprehensive Plan; namely where agriculture is a substantial part of a Town, a Comprehensive Plan should have a specific agricultural section. In the Clayton Local Waterfront Revitalization Program (LWRP), agriculture is addressed and this updated version of the Plan contains information regarding agricultural production, priority farmland, and soils being important to New York State.

Nationally, statewide, as well as regionally, it is clearly noted, the importance of preserving farmland. As mentioned in Chapter 10, Agriculture, the Town has also placed a high value on the protection of farmland and the soils that support agricultural activities. WECs are typically sited in the more rural and agriculturally intensive areas, which would be the likely situation in the Town of Clayton. WEC's technology is expected to favor taller turbines with longer blades, and thereby require larger footprints for each installation. Each incremental increase of size for an individual turbine increases the footprint that is potentially removed from agricultural production, as each turbine requires an exclusion zone proportional to the turbine size. Each unit also requires an access road and utility/power output corridors. The Town's agricultural lands are a finite resource and the recent rise in demand for, and monetary value of, tillable acreage underscores that the loss of agricultural acres to any types of development, including WECs, is not desirable. Due to the net effect of loss of agricultural acreage necessitated by WEC's

installation and operation requirements, they are incompatible and inconsistent with the goal and value of preserving and protecting farmlands in the Town of Clayton.

Historic/Prehistoric Cultural Resources

Commercial or industrial renewable energy developments can have significant impacts on Clayton's historic and pre-contact cultural resources.

The Town of Clayton has a rich cultural history, both pre- and post- European contact. There are several recorded instances of early Europeans in the area, but most of the historic period activities in the Town began at the end of the 1700's to early 1800's. Most of these locations of historic cultural activities that occurred in Clayton are known structures or sites. Research, local knowledge, and typical survey methods generally can protect these types of resources. It is probable that large scale WECs, and to various degrees other large renewable energy developments, such as commercial solar placement, would use standard methods to identify and mitigate impacts if needed or possible regarding most historic period cultural resources.

There are also, however, vast and important Native American cultural resources that can be negatively impacted by the large scale development of renewable energy such as WECs that may not be readily or easily identified using typical survey methods or have clear references. In the Town of Clayton there was a substantially long period of cultural activities for pre-contact Native American occupations. In Northern New York, human occupations started as the last ice age ended, and other paleo peoples were among the earliest human occupants of the Northeast and the Americas. The Jefferson County region has all three periods of pre-contact Native American occupations present: the paleo, archaic and woodland periods, spanning over 10,000 years. Clayton has such a high concentration of woodland period Iroquoian village that the term, "the Clayton Cluster", is commonly used by archeologists referring to this well-known group of sites. The Town is home to multiple other sites from a wide range of time periods, located across a variety of terrain.

The demonstrable high density of sites, the understood limitations and potential fallibility of conventional survey methods in the area, and a less than adequate sensitivity map, combine to create a high probability of unintended disturbance or destruction of cultural resources. This can be the case even if following the typical protocols and the proper monitoring. Some of these cultural resources contain not only invaluable archeological evidences, but can contain on site human remains, with ancestral cultural ties to the Onondaga, Oneida and Mohawk Nations. Throughout historic times, there have been frequent reports and investigations of the unintended exposure of human remains attributed to Native Americans here in the Town of Clayton and surrounding areas.

The Town's assessment in regard to the Native American cultural resources is, that

the amount of acreage disturbed by feasible modern commercial or industrial energy developments, such as WECs or large scale solar:

a.) Is unlikely to be completely surveyed and monitored in a manner that identifies fully the pre-contact cultural resources with the Town;

b.) Would be tested using criteria and standard survey methods that are effective in most areas of NYS but can be shown to be potentially insufficient for this area;

c.) Can pose a strong potential to disturb unrecorded or unknown cultural remains;

d.) Must develop a mechanism to gather input or guidance from the Iroquois Nations with cultural and ancestral ties to Clayton; and

e.) Must address ceremonial landscapes and their view-sheds (including some with evidence of nocturnal activity associated with astronomical observation) as an important Native American cultural resource and consideration.

The Town reasonably concludes for those reasons stated, that to protect and preserve the physical locations, landscapes and Native American cultural resources, both known and unknown, to a substantial degree, prior to any site disturbance on any proposed large scale commercial energy facility such as commercial WECs, large site development, or large scale commercial solar energy development or disturbance that:

a.) A full consultation with, and consent of, the Iroquois Nations should be completed and accepted by the Town and the State Historic Preservation Office (SHPO);

b.) An acceptable, extensive, comprehensive archeological investigation under the supervision of the Iroquois Nations who have purview over our area (Onondaga, Oneida and Mohawk) and the SHPO be completed. This should be performed, as well as implementing an acceptable comprehensive construction monitoring program. These steps should be considered as a condition for approving development proposals of this nature;

c.) A determination whether there are any view-shed impacts to important ancestral Native American sites and ceremonial landscapes.

The considerable footprint or zone of disturbance needed for commercial energy development and construction is by its nature on a scale never before encountered in the Town, and can impact the Town's abundant Native cultural resources. The minimum degree of processes described should occur to identify any potential Native American sites, to avoid their destruction or disturbance and to ensure no identified and unidentified cultural resources are disturbed.

Heavy Industrial/Large Commercial Development Background and Considerations

The town of Clayton, has gone through extensive changes in its economy. While many of our economic elements have evolved to meet the considerations and reality of the 21st century economy, such as Tourism and Agriculture, some elements are no longer present. The military element that has been present in our region since the hostilities of 1812 has evolved and maintains a symbiotic relationship with the surrounding communities.

A main economic element that has no longer has a strong presence in Clayton is non–marine or contractor related heavy or large industrial entities, such as the former Frink's or Graphic Controls. The community's response to this change was to revitalize the area of tourism, hospitality and recreation. We have a more sustainable agricultural paradigm. Clayton has evolved into a bedroom community where people want to live, year round and seasonally.

Clayton has also encouraged many forms of sustainable agricultural, small businesses and entrepreneurship that meshes with the community vision. The Town has successfully attracted commercial development fitting the description and criteria for the only clearly identified *desirable* larger scale development/redevelopment. Comparable to a heavy industrial/commercial development, the redevelopment of the former Frink's site to the new Hotel is an example of the type of commercial larger scale development/activity that is both desirable, acceptable and in large part achieves the goals and vision of the Town.

The consequences of the heavy industries of the past on our environment and economic stability has taught hard lessons to Clayton that dictate a careful, deliberative and considerate approach to any new heavy or large industrial development. Heavy industrial, or large commercial development could be, but not limited to, a large industrial manufacturing plant or chemical/hazardous materials storage facility, commercial enterprises with large, visible footprints such as substantial strip malls or "big box" stores. Certain agricultural processing plants can reach the level of heavy industry if large or concentrated enough, such as a large-scale slaughterhouse or any type of *regional-scale* agricultural processing plant. These types of heavy industrial scale developments should consider compatible areas only. The following considerations need to be addressed in an update to the zoning Laws and regulations to protect and further the community's vision for the future.

Heavy industrial/large commercial Defined

The definition given here is only general, as a more specific definition can be generated during a zoning review/update process. This general term can be defined as including:

- Heavy manufacturing or high impact industrial processing, or large commercial enterprises involving large-scale structures and or substantial impervious surfaces (paved) areas over 5 acres.

-Developments exceeding the Towns existing scale or mass of structures, or historically significant current structures and/or developments. This can include any future substantial multi-unit or single-family residential development with more than 50-100 units.

- Industrial and commercial developments that require substantial *changes* in the historically prevalent, and/or current land-use.

- Substantial sized (of comparable entities), *over-scaled* or out of scale mass commercial retail spaces, and or similar spaces containing multiple units with a cumulative substantial scale, mass, footprint or road frontage.

-Traditional energy generation, production or extraction or large petroleum/LP storage faculties*

* This category can reasonably be assumed to cover most any *substantial scaled, impactful* industrial or commercial activities/development, not related and generally excluding:

-Tourism or eco-tourism, food and/or lodging, recreational, marine, small to mid-sized local agricultural processing, or most all other *Town identified desirable* developments.

For example, any retail or commercial enterprise covering over 5 acres for instance, could have the type of substantial impacts that should be covered by this category.

Clayton's 1998 Comprehensive plan noted that attracting industry of low environmental impact, should focus on scenic/tourism for economic growth. The Town/Village LWRP continued this theme, refining what the Town's economic and environmental goals are in many areas. This developing Town/Village vision and consensus emphasized tourism and marine based industry as well as residential and several recreational-eco tourism elements. In the Comprehensive Plan the Town further reinforces this common vision for the goals and reasonable limitations for development in the Town. Renewable energy is introduced in more detail within Chapter 9, Renewable Energy.

Heavy Industrial/ Large Commercial Development Pressures

Industrial development pressures are not always foreseeable as technology and economic conditions change. Through several public processes, documents and stated goals developed over time, the Town has framed the types of development that it considers desirable. Many types of development that this Heavy industrial/ large commercial category covers have been identified as *not desirable* development in the Town, and are ether not permitted or are very limited in scope and location. One of the rationales for this Section is to clarify the issues and to address *unforeseen heavy industrial/large commercial developments* that may be proposed in the future, and provide the ability to limit or regulate through zoning of such development. Identified zones or corridors outside of the Village, where public consensus may allow some forms of development, will have proper zoning and protections. These corridor areas may be at the greatest risk of development pressures. This can lead to pressures for developments or levels of developments that are inconsistent with the community vision and goals, and would be outside the Towns dedicated industrial zone.

For example, NYS Route 12 from the Village as it travels easterly towards Alexandria Bay will eventually have additional utilities in the corridor. Utilities/services can be a key factor for development feasibility. This NYS Route 12 east corridor is likely to be the section of Clayton under the most development pressure over the next 10 years. Other main roads such as NYS 12E west to Cape Vincent, and NYS Route 12 south to Gunn's Corners are potential corridors with future development pressure. NYS 12 and 12E along the St. Lawrence River are within the Town's Scenic Overlay District and subject to

important landscape protections, similar protections should be applied to NYS Route 12 south regarding all heavy industrial/large commercial developments. Open spaces of the residential, rural, agricultural landscapes and the Town's "gateways" are identified as a key and cherished characteristic of the Town. These factors could necessitate the full application of those Scenic Overlay standards for the NYS Route 12 gateway. Other areas of concern are on the periphery of the Village, at transition points to the rural or scenic landscapes on secondary roads, leading to encroachment on agricultural lands and operations.

Impacts and Considerations for heavy industrial/large commercial development

1) Health and safety The type of industry or commercial development within this definition will likely need to have industry specific health and safety standards applied or developed if it is determined that this is an allowable development of this category.

Health and safety issues can lead to a determination that a particular type or proposed heavy industrial/large commercial development or activity should be highly limited with appropriate restrictions.

2) LWRPs and Consistency All allowable developments in Clayton must be consistent with both the Town and Village LWRP, and the Chaumont River Corridor Waterfront Revitalization Strategy. Within the boundaries of, or if impacting the LWRP's, all development must comply with the regulations promulgated in the LWRP. , guidance or goals of the LWRP's.

The Town/Village Clayton LWRP priorities limit this type of development in that, its protections, restrictions and goals may lead to a determination of a non-permitted use or limited compatibility with the LWRP. A determination of restricting such development *within or effecting the LWRP* priority areas may also be made.

3) Examination of the socio-economic impacts. The community vision lays out a road map for future development of large scale need to be evaluated regarding its over-all benefit to the community. The socio-economic impacts must be carefully weighed and can be highly divergent depending on the individual heavy industrial/commercial use.

Most development types under this heading are not identified as desirable by the public. The potential negative impacts to the culture, economics and landscape by these kinds of development is high. Factors such as quality of life issues, neighborhood or local character, property values and traffic patterns also need to be carefully considered.

4) Environmental impacts. Larger structures and the accompanying impermeable surfaces (paving) can have harmful impacts to the environment. These need to be carefully considered as they can take place both during construction and use. Many components of these developments can be unique to certain industries, and it may be necessary to address these specifically where applicable to ensure protection of community environmental assets.

4.1 <u>Impacts to flora and fauna</u> must be carefully considered. Visual and other mitigations can require large setbacks, and are likely to necessitate development placement in areas with large, open and less populated landscapes. This can place developments within sensitive wildlife habitats directly affecting the ecology and adding to habitat fragmentation.

These types of projects are likely to affect wildlife in some manner. Careful consideration of these types of impacts can lead to a determination of restricting this type of development in sensitive or important ecological areas.

4.2 Impacts on open spaces. Any alteration to the open space landscapes should always be carefully considered. Mitigation of alterations to open spaces can be difficult to achieve, as even mitigation actions can alter the landscape. Heavy industrial/large commercial development can have some of the most profound and difficult to mitigate impacts to open spaces making mitigation more problematic.

The importance of Clayton's open spaces and their protection can lead to a determination of limited or restricted development in open spaces.

4.3 Large structures/impermeable surfaces.

These can amplify all the typical environmental impacts, and should be taken into consideration. Hydrological systems can be highly impacted by large physical footprints of heavy industrial/large commercial developments. Fragmentation of habitats and surface drainage altering patterns can affect aquifers during and after construction.

4.4 Tall structures/communication towers.

The environmental impact of tall structures can be similar and should be considered the same as, tall structure/WECs impacts described in the Renewable energy section.

Applicable considerations and standards developed from the renewable energy section should be applied to tall structures/towers.

4.5 Topography/terrain changes.

The Town discourages "cut and fill" or major alterations to the topography and terrain for any heavy industrial/large commercial allowable developments. Wetlands, drainages or other natural features must be incorporated into all new development's design, and be minimally disturbed during construction. Open spaces, scenic value, forest cover or agricultural spaces should be considered a terrain feature, and accordingly be protected.

Any allowable heavy industrial/large commercial development must maintain and preserve the landscape or terrain, and the topography.

4.6 Noise pollution considerations

The noise issue is a complex and important area that the Town needs to consider. Heavy industrial/large commercial development can have major impacts to the ambient sound levels in the Town. The Town should consider all forms of sound/noise in all the audible and inaudible frequencies or range. Low frequency sounds as well as audible ranges can have adverse health effects and negatively impact the quality of life and character of the community.

The Town needs to examine this issue in depth and create a form of noise standard for heavy industrial/large commercial development or activities. Noise can cross-over the Towns boundary and affect surrounding municipalities. The standards the Town adopts should be no less, or match, the strongest standard of adjacent townships. The Towns of Cape Vincent, Lyme and Orleans noise standards or equivalents should be examined and utilized to create a similar noise standard for Clayton for heavy industrial/large commercial development.

4.7 Light pollution considerations.

Clayton has some guidelines for commercial lighting, but the impacts from lighting can be

amplified by the scale of the development. The night skyline should be a primary consideration for this type of development when looking at any lighting standard. Tall structures/towers should be encouraged to stay below the FAA lighting requirement. The night sky is a feature of the scenic attraction of our Town, and should be protected from additional sources of light pollution to the greatest extent possible.

5) Industrial energy production, petroleum/natural gas storage. The Township has not had to face this possibility previously but it should be clear that any fossil fuel power production, and any related activity such as disposal of fracking fluid or gas/oil exploration should not be considered as a permitted use. That type of land-use is not compatible with the community vision or the consensus of the citizens. Large-scale storage of petroleum or natural gas for energy production or any other purpose should be considered a non-permitted land use.

The Town would not, based on community vision and environmental concerns, consider any further large hydro dam projects on the St. Lawrence River, the Chaumont River or any navigable waterway in the Town.

6) Structure scale, massing, and/or height. The scale, massing, and/or height of structures regarding these heavy industrial/large commercial uses must be appropriate to Clayton's vision, goals, objectives and character. It also must be a demonstrable enhancement to all the key components of Clayton that includes the environment, economy and culture.

Based on these criteria, the height of structures for heavy industrial/large commercial development should be limited to the current standard of 35' for structures. The exception being a communication tower**, though a stationary structure, must adhere to the same standards applied to other tall structures/towers found in the Renewable section where applicable. The Height for communication towers should be a standard elevation just below FAA required lighting standard or 200'.

The overall scale and mass of structures in general, even those meeting the height limits, still must be considered as though they can have major adverse impacts. The mitigation methods for *larger than historically typical* commercial structures, whether it be total area, length, or width may need to go well beyond large setbacks from highways and adjacent properties. Proper standard considerations for all heavy industry or certain large commercial development should consider using screening methods such as large scale plantings and terrain features that would mitigate visual, noise, lighting and environmental impacts. Development of large, incomparable sized or scaled structures or multiple units that have a similar cumulative large scale that cannot be fully mitigated, should be considered as incompatible. The length of road frontage should also be a metric of scale. For example, a strip mall can have multiple units of relatively small volume, but can heavily impact road frontage. Hence it could be considered inconsistent with the scale of Clayton structures.

Conversely, some large structures have a historical role in our Town and are considered desirable in the appropriate locations. For use as a metric for considerations and impacts for what can be expected in larger scaled development we utilize the example of the new hotel (1000 Islands Harbor Hotel). Though that development would not necessarily fall in this category, it is representative of a positive, large scaled development. It generally met the height standard as a first hurdle, and though the

volume or mass of the structure had no current comparable, it clearly replicated the historical scale of Clayton's long history with the hospitality industry. It broke up its appreciable mass with suitable architectural techniques. It also met a number of the goals and strategies created through public consensus and underwent a vigorous public process resulting in highly supported development. Any comparable scaled development should consider meeting that standard as well.

Most heavy industrial/large commercial development encompass structures or footprints that are out of scale, mass, or height and unequaled historically or currently, and are inconsistent with the community vision and goals.

7) Architectural considerations.

Any unscreened visible elements of structures inconsistent with the Town/Village character concerning heavy industrial/large commercial development can have major impacts on the rural character and scenic qualities of Clayton and may not be consistent with the Towns vision and goals.

The Town/Village value the heritage architecture of the community. All clearly visible structures should be consistent with the historic architecture of the Town. Examples of this highly valued aspect in new structures is, the Community Bank building on the corner of Webb St. and 12E, and the 1000 Islands Harbor Hotel. These examples demonstrate the modern use of Clayton heritage architecture that is desired by the Town and Village to be applied to visible elements of heavy industrial/large commercial developments.

**Other exceptions to the structure height standard include only religious structures, point of use power generation, and agricultural on site storage such as silos or barns all covered in non-industrial related sections.

Heavy Industrial, Large Commercial, and Renewable Energy Development Summary

To ensure human health and safety throughout the Town of Clayton, Village of Clayton, and Hamlet of Depauville, Wind Energy Conversion Systems (WECs) and Heavy Industrial, Large Commercial Facility placement should meet adequate residential, business, institutional and property line setbacks based on the considerations in this document. Setbacks are established by the Town and Village pursuant to their Zoning Laws, consistent with municipalities' right to regulate land use within their boundaries.

It is the Town's conclusion that WECs and Heavy Industrial Facilities or Large Commercial projects would not be visually compatible and not allow the community to maintain compliance with, and follow the spirit/intent of the State certified Local Waterfront Revitalization Program Law and the Chaumont River Corridor vision statement. The only acceptable mitigation would be to set them back far enough to limit or eliminate their view from these priority areas.

In order to protect the over-all tourism industry and the economic value of the scenic elements of the Village, Town and region, it is concluded that these types of developments: commercial WECs, renewable energy, heavy industrial facilities, and large commercial projects, are only compatible with areas away or not visible from the scenic and tourism destinations.

The Town deems any commercial WECS, renewable energy, and heavy industrial/large commercial facilities should be set back from residences, residential properties, and

agricultural properties in order to protect and maintain property values, to include stringent property value protections if prohibition is not upheld.

To insure the future stability of the Village and Town as well as the region's multi-faceted economy, the prudent and reasonable course of action is to limit placement of commercial WECs and heavy industrial facilities from the Town and consider them to be undesirable, restricted land-uses in the Town, Village, or Hamlet.

It is concluded that commercial WECs, renewable energy, and heavy industrial facilities can have adverse impacts on agricultural production. They provide minimal potential benefits to the Town's agricultural economy, and should be considered land-uses that do not encourage long-term farming or preserving priority agricultural soils for production. Proper restrictions or limitations should be created to protect the Towns agricultural assets.

Until impacts can be determined to be mitigatable, and studies can be conducted that would rule out negative impacts on the training mission, rapid deployments, and security function of the installation, the Town determines commercial WECs and heavy industrial facilities to be potentially incompatible with Fort Drum communications, radar security, and airspace use. The Town finds that permitting any commercial wind development or heavy industrial facilities in the Town should be in concert with Joint Land Use Study findings to limit encroachment impacts that could jeopardize continuing efforts to protect Ft. Drum as a regional, statewide, and national asset.

The Town has determined that commercial renewable energy development and heavy Industrial/large commercial development are not compatible with the Alvar environment, which can experience extremely detrimental impacts. Alvar geology, surface and subsurface hydrology, and the ecological systems they support are fragile, rare and extremely susceptible to disruption or destruction from human activities. The Town has concluded that: The Alvar areas are an irreplaceable element of our Towns character. They are rare environments/ecological systems, supporting flora and fauna that are rare. These areas are part of a finite environmental landscape nationally, as well as globally, and should be protected from adverse large scale development in close proximity.

The Town finds that these areas should be fully surveyed and identified, then studied regarding geology, ecology, hydrological systems and to the Alvar's specific relationship with endangered avian species migration and habitats, as part of the pre-application process for this type of development. Therefore, the Town finds that heavy industrial/large commercial and renewable energy developments should generally avoid placement within these areas.

Flora and fauna could experience extremely detrimental impacts from WECSs, to a lesser degree commercial solar facilities, and heavy industrial or large commercial development. Studies should be conducted regarding identification of flora and fauna species that could be impacted, and made part of any pre-application process for these types of development. The Town concludes that full environmental wildlife studies and assessments, by a Town selected authority, should be considered when reviewing projects within three miles of sensitive areas. Zoning updates should reflect this conclusion.

The Town of Clayton and the region are part of an important migratory flyway. The Town is clearly within an international border zone subject and obligated to abide by the MBTA 1918. New York State recognizes the significance

of avian wildlife and the need to preserve and protect this regions avian habitats and environments. The Township is host to a variety of migrating and resident rare, endangered, threatened or recovering species as well as common avian species. The Township has rare habitats and ecological systems that support species at risk. The airspace of these habitats is interconnected, and has daily and/or migratory transient activity in all seasons.

Heavy industrial/large commercial and commercial WECS, as well as large solar projects potentially have negative impacts to resident and migratory avian habitats as well as the supporting ecological systems and airspace. Zoning should reflect the applicable degree or scale of restrictions and regulations as well as enforce any required reviews. Minor to full multi-year avian studies shall be applied based on the scale level of impacts. The largest potential impact to avian species and supporting ecology is from commercial WECS. Added infrastructure such as transmission lines can have potential major negative impacts. WECs clearly have the most severe and permanent potential impacts locally, regionally, nationally and internationally regarding avian species and ecology. Avian studies by Town selected authorities, shall be a pre-application condition for WECs, large solar or other high impact heavy industrial/large commercial developments. The Town concludes that heavy industrial/large commercial and renewable energy regarding large solar and WECs should be a restricted or a limited land use in the Town of Clayton, as a way to protect, preserve and enhance the critical avian habitats and species in this area.

This region and the Town of Clayton are home to multiple species of bats, their habitats and ecological systems. There are identified hibernation locations with endangered bat species and there are other similar habitats in the Township. The rare and unique land forms and environments in the Town are critical to the survival of all species of bats, especially the endangered and threatened species, and are a keystone ecological fauna element.

All forms of heavy industrial/large commercial and renewable energy development can have negative impacts to resident and migratory bat habitat as well as the supporting ecological systems. Zoning should reflect the applicable degree of restrictions or regulations and enforce any reviews and ensure that minor to full multi-year localized bat studies be undertaken when applicable and scaled accordingly as a pre-application condition. The largest potential impact to bat species and supporting ecology is from renewable energy development. Large solar arrays can have potential major impacts. WECs clearly have the most severe and permanent potential impacts locally and regionally regarding bat species and ecology. The Town concludes that heavy industrial/large commercial development, and renewable energy development regarding large commercial solar and commercial WECs should be a restricted or prohibited land use in the Town of Clayton in order to protect, preserve and enhance the critical bat habitats and species in this area.

Noise pollution is an ever-increasing issue that can have profound effects on quality of life, as well as potential to health, and safety to Town and Village residents. One element of character that is integral to the Town is the noise levels that are, and have been typical for our Town over the four seasons. Noise can also negatively impact ecological systems. Noise pollution can cross over into surrounding Towns. The Town should develop standards and procedures concerning heavy industrial/large commercial and all commercial renewable energy systems. The Towns noise standards and procedures shall consider meeting or exceeding the surrounding Towns' standards.

Light pollution is an increasing concern as any growth or development occurs. The most notable impact to the night sky is outside of the Village. The night sky view-shed of the Town's open spaces, rural areas, and of the River and Islands part of the cherished quality of life. The night sky and the current level of visibility of the stars is a key element of the Town's character and must be protected to the greatest extent possible. Light pollution can affect adjoining Townships and add to regional aggregate light pollution levels.

The light pollution from heavy industrial/large commercial, and commercial WECS can have severe impacts to Native American ceremonial landscapes, as well as to Fort Drum's night training activities. The lighting needs for tall structures, large facilities/structures and parking areas associated with most Heavy industrial/large commercial, as well as renewable (WECs) developments, are not compatible with preserving and protecting the night sky view-shed. The Town concludes that these types of developments should be restricted or prohibited as a land use.

The Town has multiple watersheds, drainages and sub-surface hydrological systems and aquifers. Much of the Town has a karst geology with accompanying hydrology and aquifer(s) systems. These areas also have the added factor of fragile, rare alvar surface terrain(s) zones. These fragile karst and alvar zones and their aquifers are extremely susceptible to surface drainage alterations and fragmentation. The sub-surface aquifer flows and storage structures are extremely susceptible to bedrock disturbance from, drilling, blasting, large-scale excavations or other surface/subsurface actions necessary for tall structures, WECs, and other large projects. Development that can negatively affect area wells, aquifers and recharge systems are not compatible with preserving and protecting the environment and the quality of life for citizen's dependent on these hydrological systems. Disturbance to these surface and subsurface systems can introduce contaminants into these systems affecting aquifers over distances. Full multiyear hydrological studies should be conducted as a pre-application process, as well as protections and guarantees for aquifer disruption/disturbances. The Town concludes that heavy industrial/large commercial, large-scale solar arrays and commercial WECs development should be restricted, or prohibited in areas with susceptible aquifers such as the karst-alvar zones of the Town.

There are multiple modes of aviation activity that are within Clayton's active low-level airspace. Vital emergency services utilize this airspace year-round in all visibility conditions. Tall structures and WECs towers will negatively affect this airspace for low-level aviation. Low visibility emergency flights currently available could, become no longer viable. Aviation radar or instrumentation can be affected by WECs, leaving most low-level flights or airport use no longer viable in low visibility conditions. Recreational balloon flight/tourism has no avoidance methods and would not be safe or possible near or within a WECs development.

The Town concludes that to preserve and protect the low-level airspace of the Town for transit, recreational, emergency, private airport use, and DOD training that this type of development be restricted as a land use in the Town.

The Town of Clayton places a high value on open spaces and the unobstructed view-sheds of our scenic, rural and historic landscapes and their inseparable contribution to Town Rural Character. These areas are at increasing risk from development pressures. The Town has determined that the current and historic open space areas of the Town as reflected on the Character Areas Map such as Farmland,

Forest/Scrub/Grassland, wetlands, water, waterfront residential and rural residential are the definition and standard for what the Town considers its priority open spaces. The Town has noted that heavy industrial/large commercial or renewable energy development could detract significantly from such open spaces and their character. The Town has concluded that heavy industrial/large commercial or renewable energy development should be a major consideration for avoiding open spaces or in areas affecting priority view-sheds.

There are potential issues with communication systems such as digital TV signals from large structures, tall structures or WECs. Radar interference issues are associated with WECs. The Town concludes that communication interference can be an issue for the above listed types of development and appropriate studies, should be part of any application regarding these developments.

There are substantial and irreplaceable historic cultural resources in and around the Township. A major portion of Clayton's cultural resources is Native American, including an Iroquoian Village sequence with one of the largest Native mortuary complexes in northern NY in the Hamlet of Depauville. Native American cultural resources, and relationships to this area spans over 10,000 years, and is of great importance to the Mohawk, Onondaga and Oneida Nations as well as the citizens of Clayton.
In order to protect and preserve the physical locations, ceremonial landscapes, view-sheds and all Native American cultural resources. The Town concludes:

Heavy industrial/large commercial and renewable energy development should be limited in the Town. Any of these developments should trigger all efforts by the Town to ensure early and proper consultation and notification of the Mohawk, Oneida and Onondaga Nations, Federal and State authorities as a precondition of any application.

Typical sensitivity assessment and survey methods would not be adequate in this unique setting. The Town concludes that the Nations are best suited to interpret and determine the sensitivity of Native cultural resources, their ceremonial landscapes and treatment, as the primary partner with New York State Historic Preservation Office (SHPO), as well as the Town of Clayton.

The Town should, due to its unique cultural resources and the acknowledged ancestral relationship to the Iroquois Nations, pursue proper, sanctioned abilities to directly communicate with these sovereign Nations. This would further the Towns efforts to understand, protect and respect Native American cultural resources.

The Town should consult with and assist, local archeologists, SHPO and the Nations in consideration for, and with the process of application for a Historic District status for the "Clayton Cluster" of Iroquoian Village sites. Placement on the National Historic registry as a Historic District of Native American Landscapes and Ceremonial Landscapes, for these cultural resources is consistent and encouraged in the NYS SHPO Plan 2015-2020 (pages 13, 14, 19 and section V 2015-2020, Goals, objectives and strategies). The Town should support an effort in the Town of Orleans for a similar Historic District status for the Perch Lake Mounds.

Historic Districts should also be considered for legacy landscapes such as the rural farmlands or the Amish enclaves, the Hamlet of Depauville and other qualifying areas or elements. The town should support any ongoing efforts to list the Thousand Islands as a Historic District.

The Town of Clayton's year-round and seasonal citizens hold the character of the Town to be the single most important element of quality of life. The character of the Town includes the natural, physical and cultural elements of our Town. The character of the Town is self-determined and can be subjectively assessed, qualified and determined to a satisfactory level as described in the character sub-section. The Town has determined that a primary planning tool should be a Guiding Principle: To protect, preserve and enhance the character of the Town of Clayton.

The Town has, as a community, a commonly perceived and acknowledged character in terms of the entire Town. There are also localized character components at the neighborhood or even the use level, and its setting or location within the Town. For example, the waterfront/island residential areas, the Village, Hamlet, or the rural residential and farming areas of the Town, all have their own unique characteristics. Together, they all equally contribute to an aggregate overall character of the Town. Each of these singularly, overall, and the localized elements or components of Town character all must be addressed as part of the character assessment for planning or an application process. The Town's or Village's self-determined character, and its character assessment can therefore be equally applied throughout the Town, as each component is an essential element to the Towns aggregate character.

The Town's understanding regarding some types of large commercial developments is they can impact the character of the Town. They are inconsistent with the guiding principle of preservation, protection and enhancement of the character of the Town of Clayton. These types of developments, due to the level of impacts to the Town's character, quality of life, cultural resources, and wildlife should be restricted or limited in the Town.

The Guiding Principle should be considered for all forms of future commercial development in the Town as a standard line item in the planning process/applications. The response-assessment should be reciprocal to the degree of potential impact to the Character.