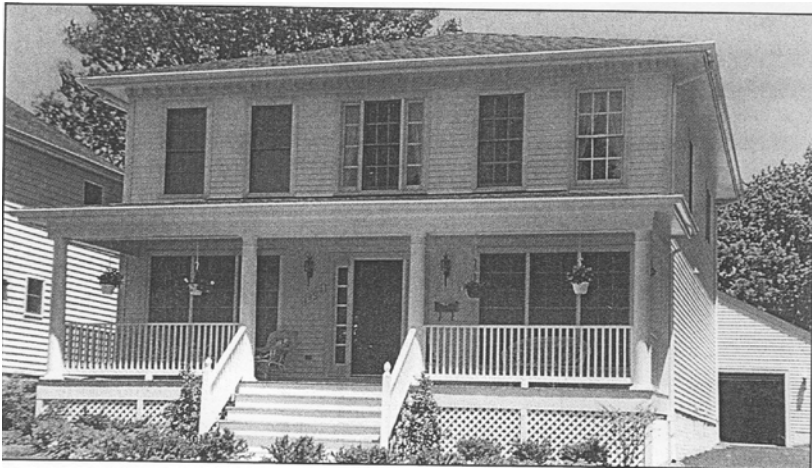


APPENDIX A. FIGURES AND GUIDELINES

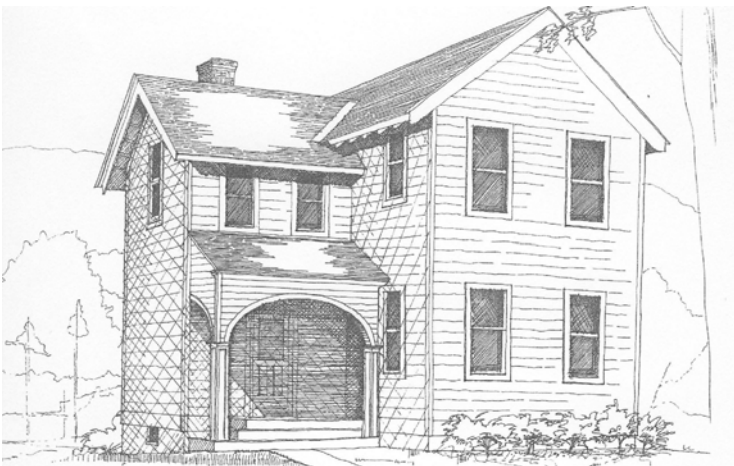
These figures are intended to act as visual guidelines and to provide examples of the concepts presented in the bylaw. They are numbered referring to the article and section where they are principally described or referred to.

FIGURE A.3.1.1 – Housing Types: Single Family Detached, Duplex (2-family attached), Town Houses, Multi-Family, and Garden-Style Apartments – see Articles 2, 3.1, and 4.6.6-3.

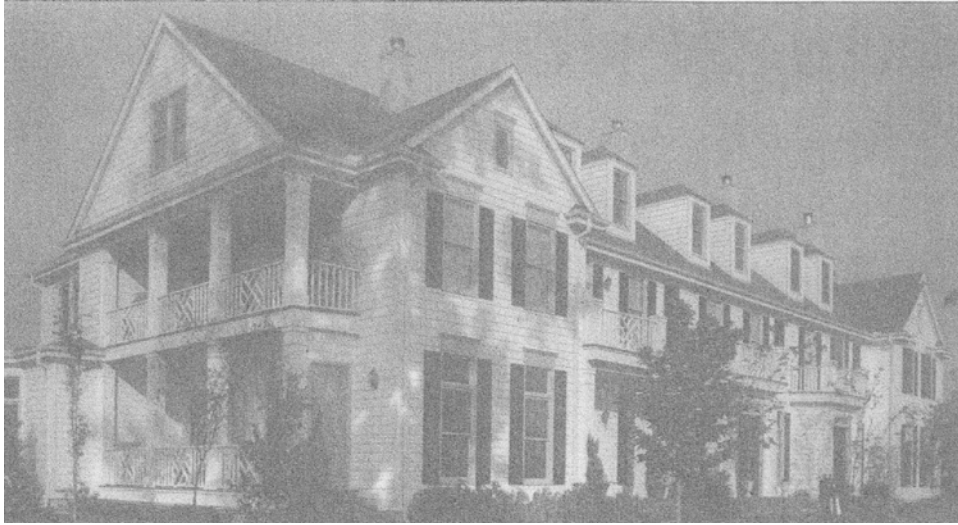
Single Family Detached



Duplex or Two-Family Attached Dwelling with Two Separate Entrances



Townhouses or Multi-Family Attached



Garden-Style Apartment (mentioned in the GROD – Article 4.6.6)



FIGURE A.3.1.2 – Residential Intensities, see Articles 2, 3.1 and 4.7:

R10 Intense Residential Use – Consists of all housing types with higher concentration of houses and 10,000 sq.ft. lots minimum, high interconnectedness of roads,

R40 Medium Intensity Residential Use – Consists mostly of single family detached houses and 40,000 sq.ft. lots minimum with roads often extending beyond walkable distances from village centers,

R80 Low Intensity Residential Use – Consists almost exclusively of single family detached houses, unless in the preferred form of flexible residential development (cf. Article 11), 80,000 sq.ft. lots minimum, distance from village centers precludes access to sewage and consequently requires septic systems and their requisite large lots.

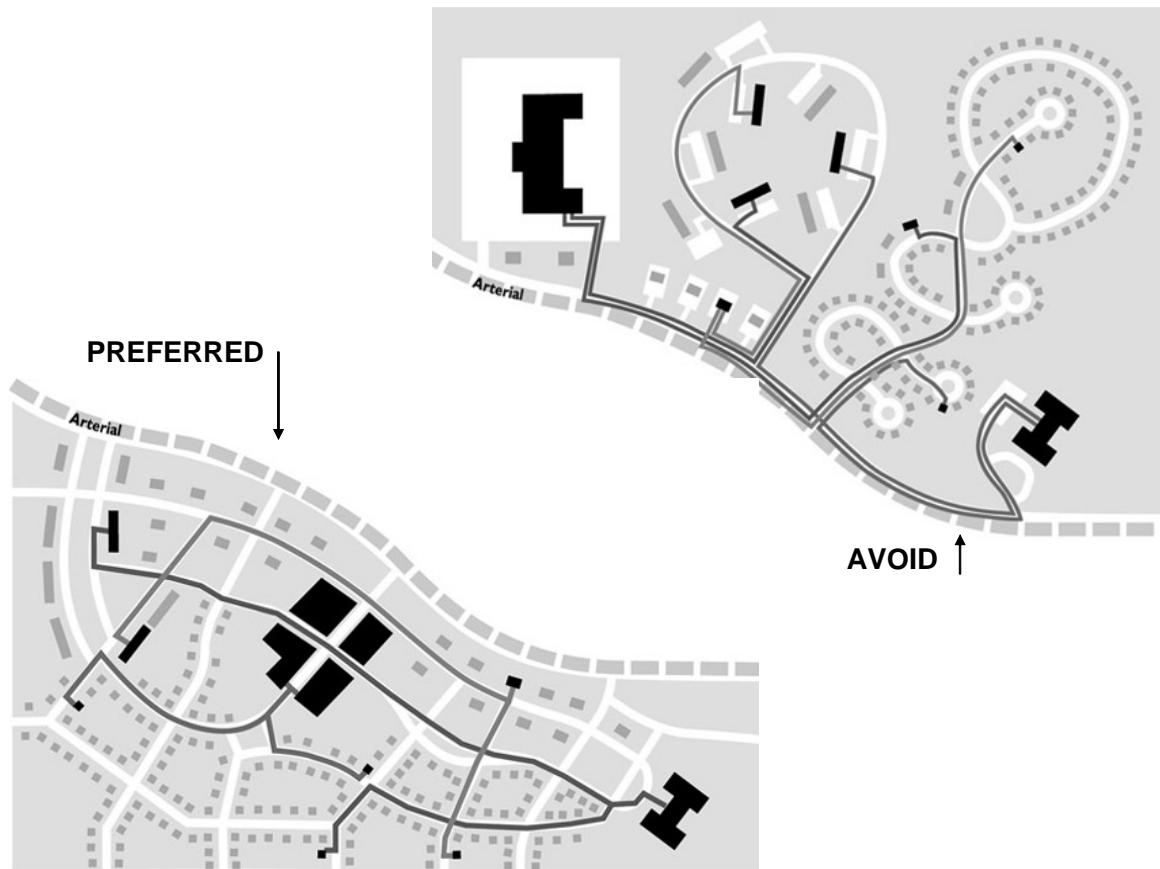
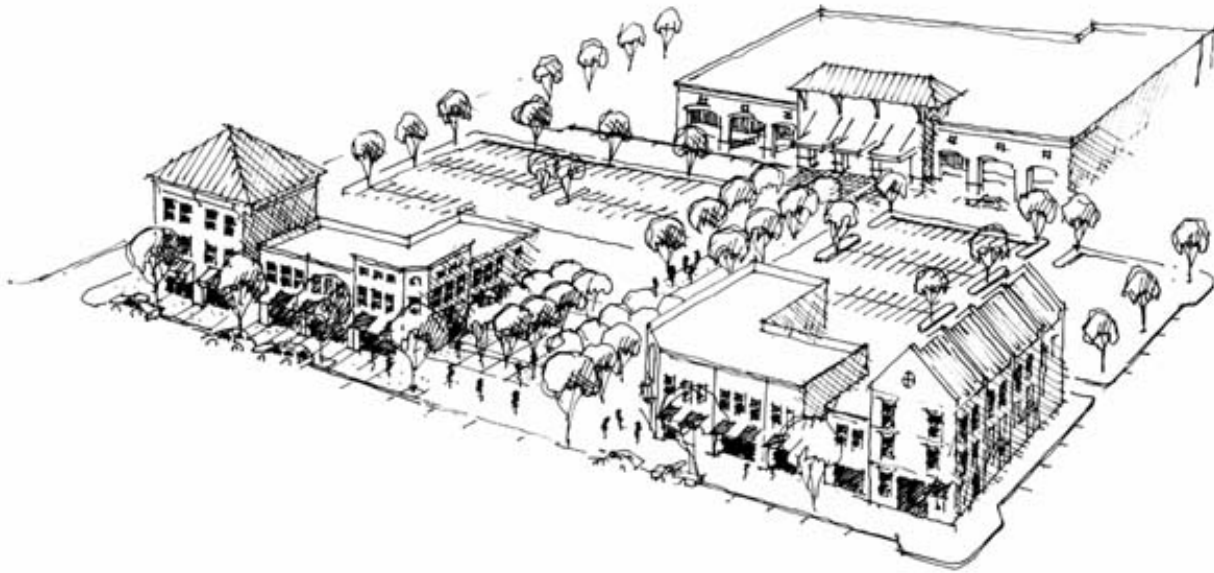


FIGURE A.3.1.3 – Commercial and Industrial Use Patterns – see Articles 2, 3.1:

C1 – High Intensity Commercial Development – larger floor area retail, office and light industrial buildings requiring access to larger roads for trucks and high volume traffic. Development patterns clustering commercial developments into efficient parks, malls and commons is greatly preferred and strip development is to be avoided.

PREFERRED C1 DEVELOPMENT PATTERN



STRIP DEVELOPMENT TO AVOID



C2 – Neighborhood Intensity Commercial Development – smaller scale commercial development servicing neighborhoods and more remote areas, includes the corner and convenience stores. EXAMPLE BELOW



I-Industrial patterns - No particular aesthetic patterns is required as the use is remote from neighbors, but facilities must be safe and produce no impacts out of zone and few off-site.

FIGURE A.3.1.4 – Planned Development, Mixed use – see Articles 2, 3.1 and 4.7, Many patterns exist, but a Planned Development prototype looks like the one below:



Updated Zoning Map available in Town Clerks Office and Department of Planning and Development.

EXAMPLE A.3.2. ZONING EXAMPLE:

To clarify some of the considerations from Article 3.2, distances from a zoning boundary that follows a road (e.g. 202) are usually 300ft (or as determined from scale) from centerline or one lot deep. However, road frontage is the key to determining zoning for a given lot. If the lot is shallower than 300ft, the abutting property behind (i.e. a lot without frontage on said road) is NOT considered in said road, even if a portion of the lot is traversed by the said zone. A lot on said road that is deeper than 300ft is considered zoned as per said road, though built development of said zoning type should be within 300ft of said road.

FIGURE A.4.6. GOLF RESIDENTIAL OVERLAY DISTRICT MAP (N.B. Map not to scale.)

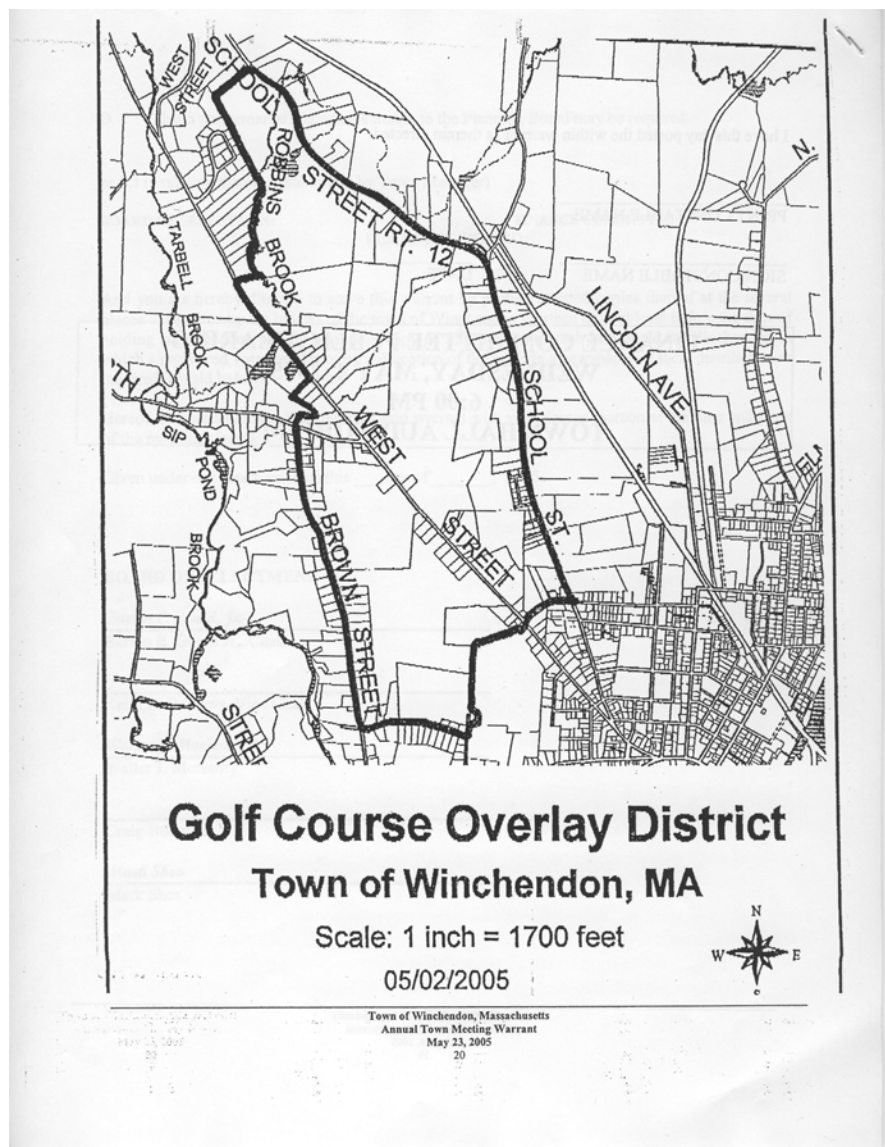
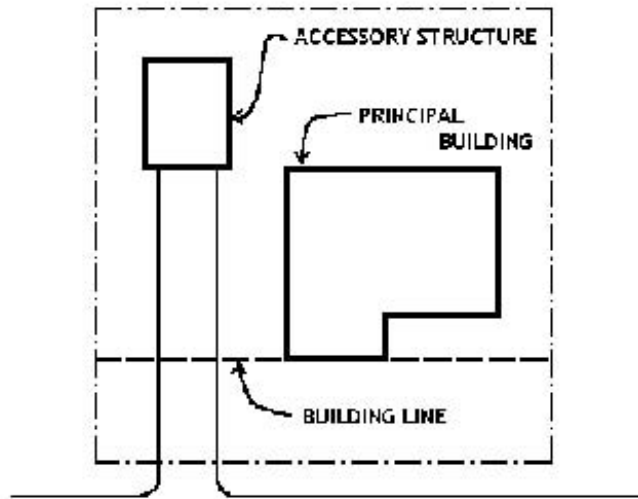
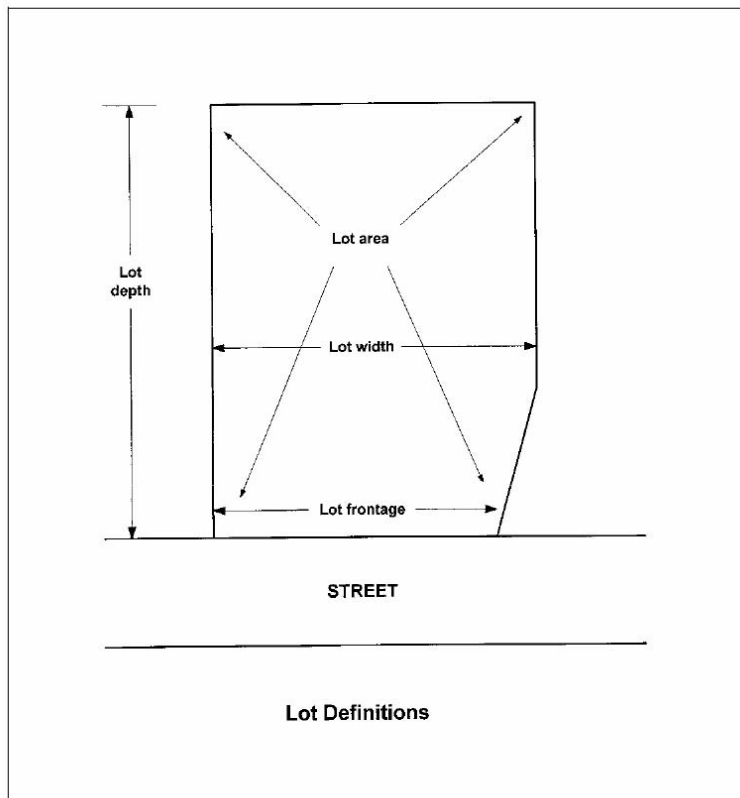


FIGURE A.6.3 Accessory Structure – see Article 2 and 6.3



Example: If a resident has enough room on lot and desires to build a “mother-in-law” apartment above his/her garage and his/her residence is 2100sqft, the apartment can be no bigger than 700sqft.

FIGURE A.7.2.1 Lot definitions – see Article 2



Examples deleted due to Zoning Bylaw change of May 22, 2007

Examples deleted due to Zoning Bylaw change of May 22, 2007

FIGURE A.7.2.3 – Yard definitions – see Article 2 and 7.2

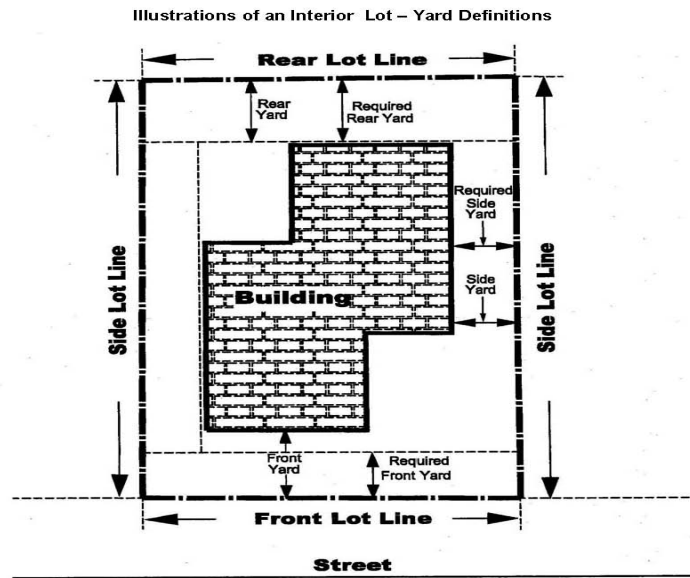


FIGURE A.7.2.4 – Buffer Zones or Yards – see Article 2 and 7.2

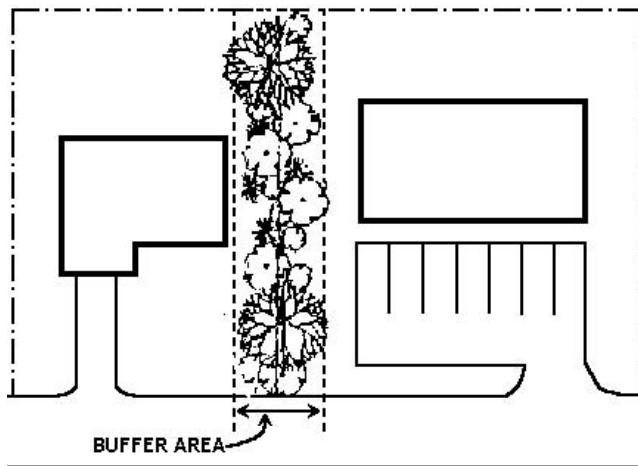


FIGURE A.7.2.5 – Building height – see Section 7.2

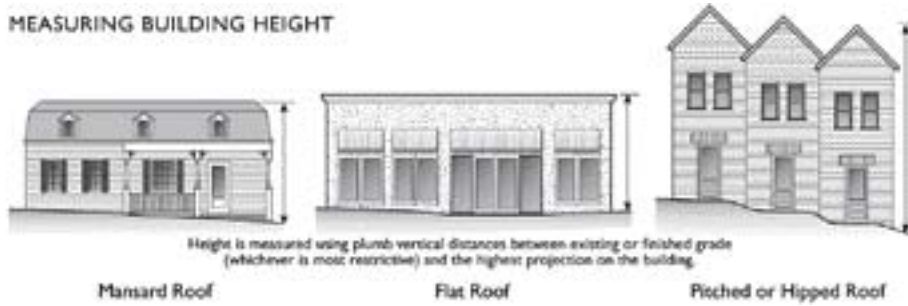


FIGURE A.7.2.6 – Impervious Surface – see Section 7.2

Impervious Area includes both the building coverage AND other impervious surfaces like driveways and parking area, etc. If driveways and parking areas are made with pervious materials, considerations are made (cf. Article 8).

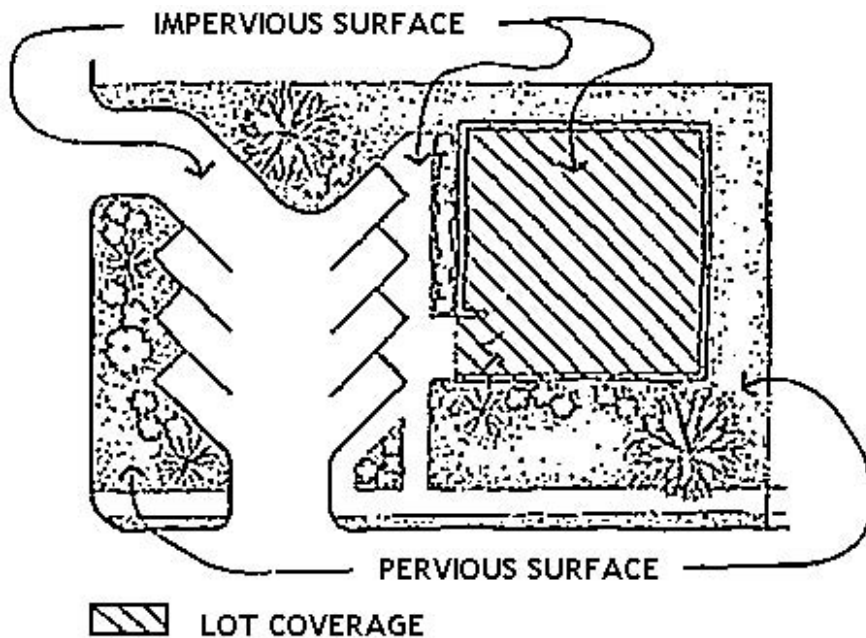
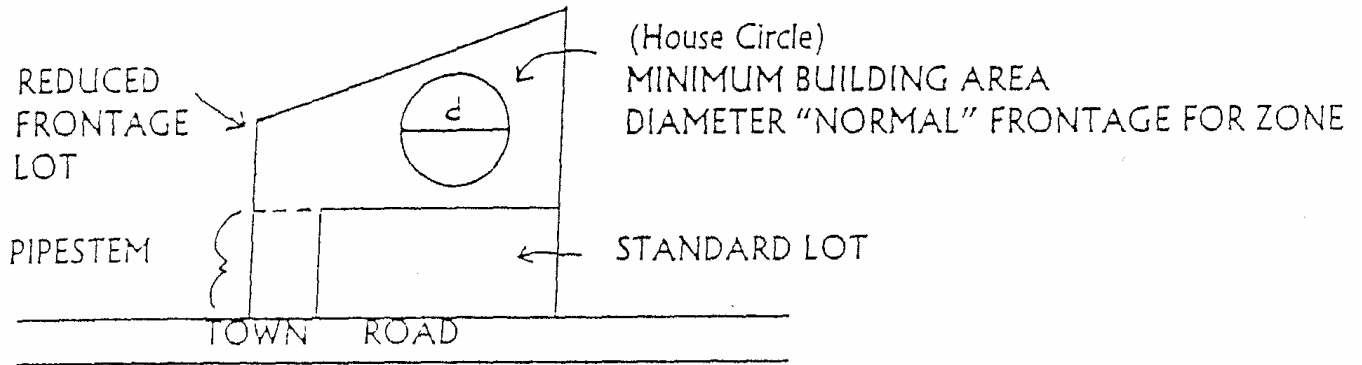


FIGURE A.7.3 – Reduced frontage lot – see Section 7.3, Panhandles (aka. Pipestems) may be allowed in the case of accessing back land in accordance with Article 7.3.



Example A.8.2 PARKING EXAMPLES AND TABLES

On street parking also provides a reduction in the mandatory number of parking spaces required by up to 1 space for every 22' of parkable street frontage offered within the above restrictions [parking directly on street frontage is primarily included with the proprietor of the frontage]. If such parking is shared or claimed by other interests, shared parking requirements must be respected.

If parking needs are complementary to the existing neighborhood's usage (e.g. parking at night in a 9-5 business district) credit for needed parking spaces may be purchased from other parking space owners. Complementary parking in general will diminish the required amount of parking by the factors below.

Table 8.2 Complementary Shared Parking Table					
Multiply the number of spaces to be shared by the factor below to determine the credit allowed the recipient.					
Provider's use	Recipient's Use				
	Residential	Lodging	Office	Retail	Meeting at Night
Residential	0				
Lodging	.1	0			
Office	.4	.7	0		
Retail	.2	.3	.2	0	
Meeting at Night	.1	.1	.7	.3	0

Example: ABC Inc. is a light manufacturing company that buys a building on Magnolia Street that has 4200sqft left for parking respecting lot coverage issues. ITE Standards suggest 2.87 spaces/1000sqft and 20 employees on a dayshift only at a 1.1 ratio/employee. ABC has 4800sqft left and would need 14 spaces (i.e. $4200 \times 2.87 / 1000$) per area and 22 spaces for the employees (i.e. 20×1.1) by this calculation. ABC feels they will need fewer spaces because they are not

really catering to the public at large, but they do have small delivery vans, requiring in their opinion 35 spaces. This is less than 10% different than the ITE Standards, so it does not require review. There is some shared parking at a neighboring lot that would agree to provide 10 spaces. The neighbor on the other side has a small lot that is mostly used at night, so they may use the lot as a complementary use at office:night use of 0.7. That lot has 10 spaces, such that 7 can be used (with written permission from owner) by ABC. ABC has 50 ft of frontage on street and can claim 2 more spaces. They would then need to provide $35 - (10 + 7 + 2)$ or 16 spaces of off-street parking. If they wanted an impervious surface parking lot and respected ITE design standards, they would have just enough for 16 spaces, but would not require an exceptional review. If they used permeable pavers for much of the lot, they could allow more room for their own parking lot. This equates to division by the runoff coefficient – a pervious paver of 0.5 would thus yield normal $\text{pkg}/0.5$ or twice the normal allowable parking spaces, compacted gravel with a runoff coefficient of 0.9 would allow a 10% increase. For a list of other parking considerations see below.

Other Parking and Traffic Considerations

1. Consider impact on setback,
2. Impervious surface, pervious credits
3. Noise, future value,
4. Community services and security,
5. Accessibility for other modes – pedestrian/ADA,
6. Access to open space, amenities.
7. Other Shared parking/complimentary parking uses like special event parking

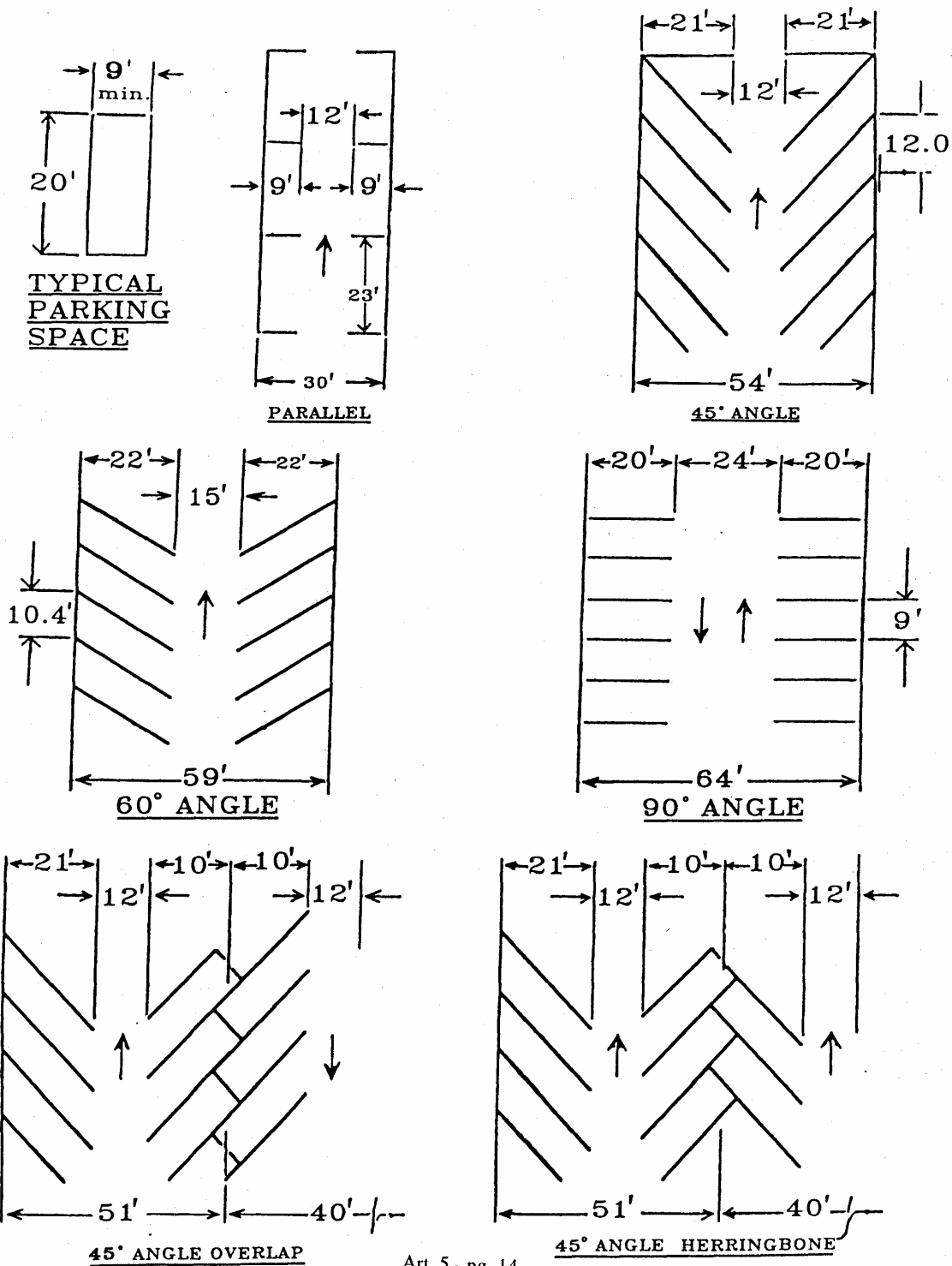
Table 8.3 INSTITUTE FOR TRANSPORTATION ENGINEERS (ITE) HANDBOOK – PARKING GUIDELINES

Use	Unit	Period	Peak Accumulation ^a (85% tile)	Spaces per Unit (Recommended Ratio ^b)
Commercial Airport	Enplaning passengers	Weekday	0.64	0.70
	Enplaning passengers	Saturday	1.48	1.62
	Enplaning passengers	Sunday	2.05	2.26
Light Industry	100 sq m (1,000 sq ft) GLA	Weekday	2.61(2.43)	2.87(2.67)
	Employee		1.00 ^c	1.10
Industrial Park	100 sq m (1,000 sq ft) GLA	Weekday	2.27(2.11)	2.50(2.32)
	Employee	Weekday	0.80	0.88
Manufacturing	100 sq m (1,000 sq ft) GLA	Weekday	2.45(2.28)	2.70(2.51)
	Employee	Weekday	1.00 ^c	1.10
Low-Rise Apartment	Dwelling unit	Weekday	1.38	1.52
		Saturday	1.53	1.68
High-Rise Apartment (central area)	Dwelling unit	Weekday	0.59	0.65
Residential Condominium	Dwelling unit	Weekday	1.41	1.55
		Saturday	1.23	1.35
Convention Hotel	Room	Weekday	1.10	1.21
Motel with Restaurant/Lounge	Rooms	Weekday	1.49	1.64
Movie Theater	Seats	Weekday	0.30	0.33
		Saturday	0.37	0.41
Sports Club/Health Spa	100 sq m (1,000 sq ft) GLA	Weekday	6.86(6.37)	7.55(7.01)
Church/Synagogue	Attendees	Sunday	0.62	0.68
Hospital	Beds	Weekday	2.48	2.73
Medical-Dental Clinic/Office	100 sq m (1,000 sq ft) GLA	Weekday	5.92(5.50)	6.51(6.05)
General Offices Building	100 sq m (1,000 sq ft) GLA	Weekday	3.23(3.00) ^d	3.55(3.30)
	Employees	Weekday	0.93	1.02
Office Park	100 sq m (1,000 sq ft) GLA	Weekday	3.53(3.28)	3.55(3.30)
Hardware/Paint/Home Improvement Store	100 sq m (1,000 sq ft) GLA	Weekday	3.48(3.23)	3.82(3.55)
	100 sq m (1,000 sq ft) GLA	Saturday	4.51(4.19)	4.96(4.61)
Shopping Center	100 sq m (1,000 sq ft) GLA	Weekday	4.77(4.43)	5.24(4.87)
	100 sq m (1,000 sq ft) GLA	Saturday	5.49(5.10)	6.04(5.61)
Quality Restaurant	100 sq m (1,000 sq ft) GLA	Weekday	18.73(17.40)	20.60(19.14)
	100 sq m (1,000 sq ft) GLA	Saturday	21.65(20.11)	23.81(22.12)
Family Restaurant	Seats	Weekday	0.54	0.59
		Saturday	0.61	0.67
		Weekday	12.00(11.15)	13.20(12.26)
Fast Food Restaurant (without drive-in window)	100 sq m (1,000 sq ft) GLA	Weekday	0.42	0.46
	Seats	Weekday	14.27(15.36)	15.70(16.90)
Bank—with drive-in & walk-in facilities	100 sq m (1,000 sq ft) GLA	Weekday	0.77	0.85
	100 sq m (1,000 sq ft) GLA	Weekday	5.88(5.47)	6.48(6.02)
Fast Food Restaurant (with drive-in window)	100 sq m (1,000 sq ft) GLA	Weekday	14.38(13.36)	15.83(14.70)
	Seats	Weekday	0.70	0.77

^a Average rate plus one standard deviation. Transportation Engineers, *Parking Generation*, 2nd Edition.^b Ten percent effective supply factor. May not be needed in all cases (i.e., residential).^c Adjusted to 1.00 space/employee.^d Adjusted to 3.00 spaces/1,000 sq ft of building area.Source: Weant & Levinson, *Parking*.

Figure A.8.5.1 – Sample Acceptable Parking Sizes and Layouts

DESIGN STANDARDS FOR OFF-STREET PARKING



Art 5 - pg. 14

FIGURE A.8.5 – Sample of a Preferred Parking Structure (Except It Lacks Cutoff Lighting), Note Swales for Stormwater Management and Ped/Bike Friendly Design.

Example: If the parking area from the ABC example above is a reference, they would need by Article 8.5.6 4800x.05 or 240sqft minimum of landscaped area, 2 trees minimum.



FIGURE A.8.7 – Stacking spaces – see Section 8.7

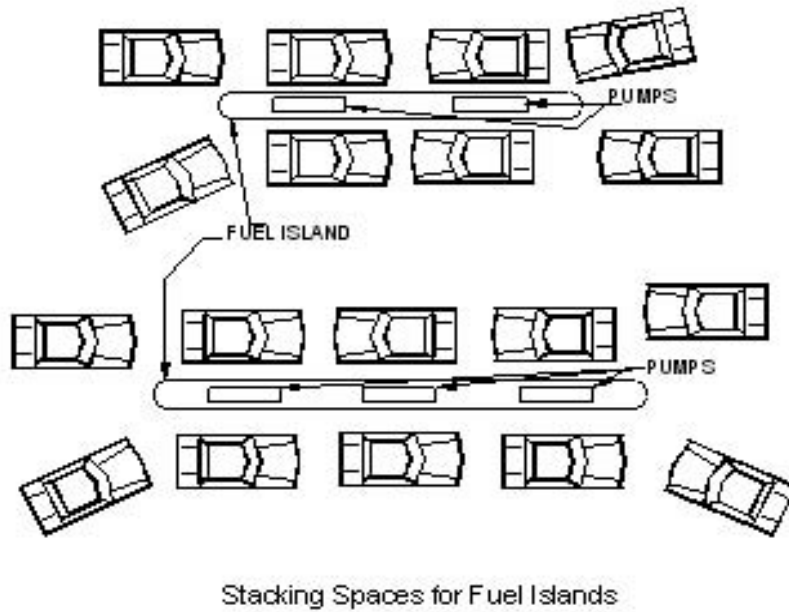


Figure A.9.1 – Sign Types and Locations – Articles 9

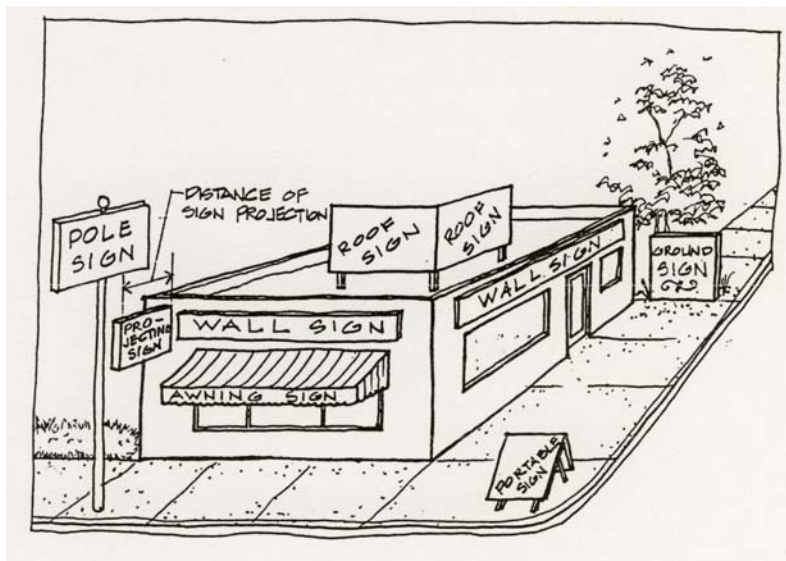
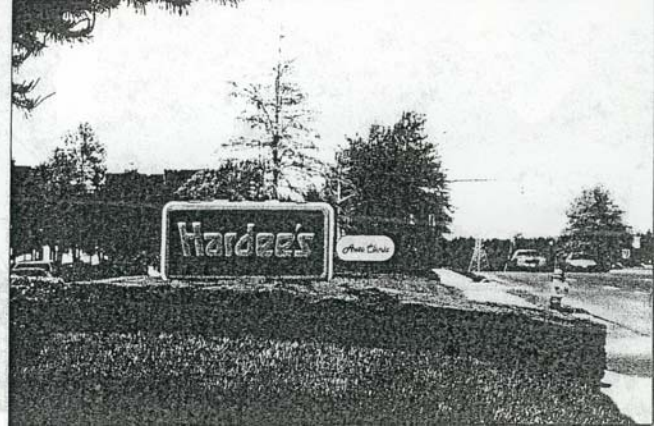


Figure: Sign Locations & Examples

Figure A.9.2 – Preferred and Avoided Signs – See Article 9.



To Be Avoided

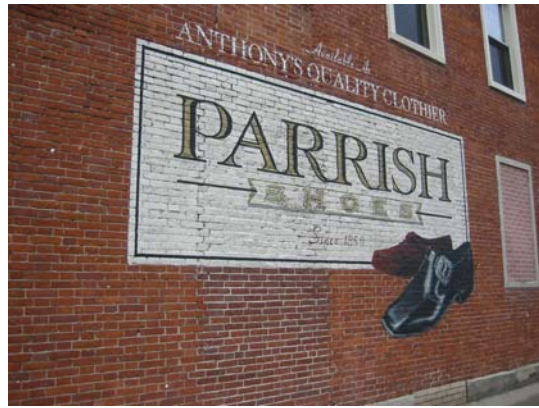


Preferred

Other Preferred signs



Signs to Avoid



Preferred Big Box Design and Signage

Better Models for Big Box Retailers



To Avoid



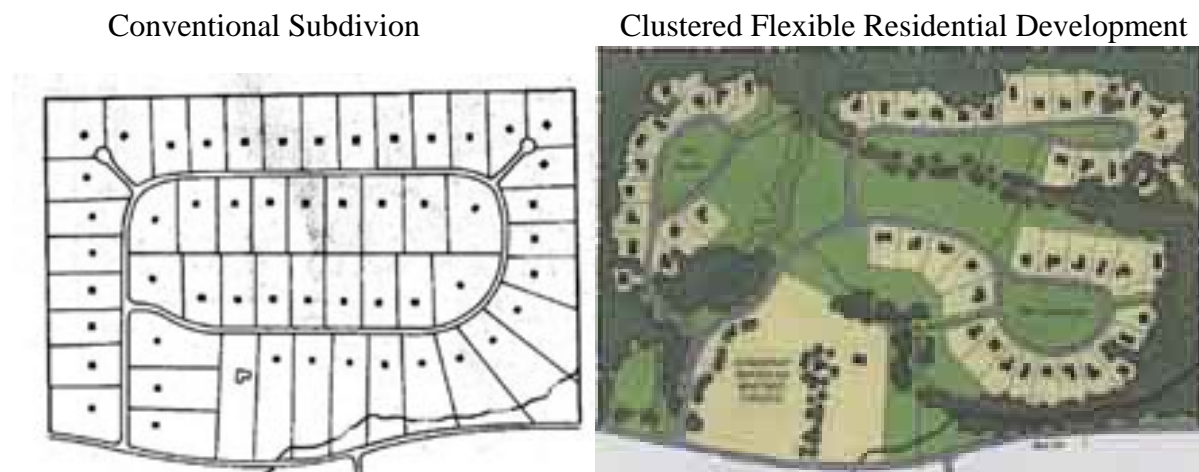
Preferred

Example A.9.6.6 and A.9.6.7 – Let us assume an applicant wants a sign for a PD zone. S/he has 80 feet of frontage such that 80/10 or 8sqft is allowed for the sign. If the applicant wants reflective coloring or illuminated neon, that would reduce the allowable sign face area to 4sqft (e.g. 1ft x 4ft).

Example A.9.11 – Let us assume an applicant wants a sign for the C1 zone. S/he has 200ft of frontage on a 50mph road and would like a pole sign and they do not have the Gateway Overlay restrictions. The applicant can have $200/2$ or 100sqft, which is greater than 64, or a 64sqft sign. As the speed is greater than 40mph, the sign can be increased to 1.5×64 or 96sqft on a pole sign no more than 30ft high as it would be greater than 50 back from the road. If they had the Gateway Overlay restrictions they would not be allowed more than 64sqft, as the sign would not be visible from the high speed road.

Let us say the applicant wants a wall sign, too and has 100ft of building frontage, then s/he is allowed a total area of wall sign of no more than 1.5×100 or 150sqft (e.g. 1 25 x 5ft sign in front and a 5 x 5ft sign at the side entrance).

Figure A.11 – Cluster/Flexible development – see Article 11



EXAMPLE A.11.6 – Let us assume we had a lot of 120 acres. A conventional subdivision on an R80 lot might allow 50 subdivided lots $120/(1.2 \times 2)$. A density bonus of up to 7 additional dwelling units might be allowed if the developer pursued a flexible residential development pattern.

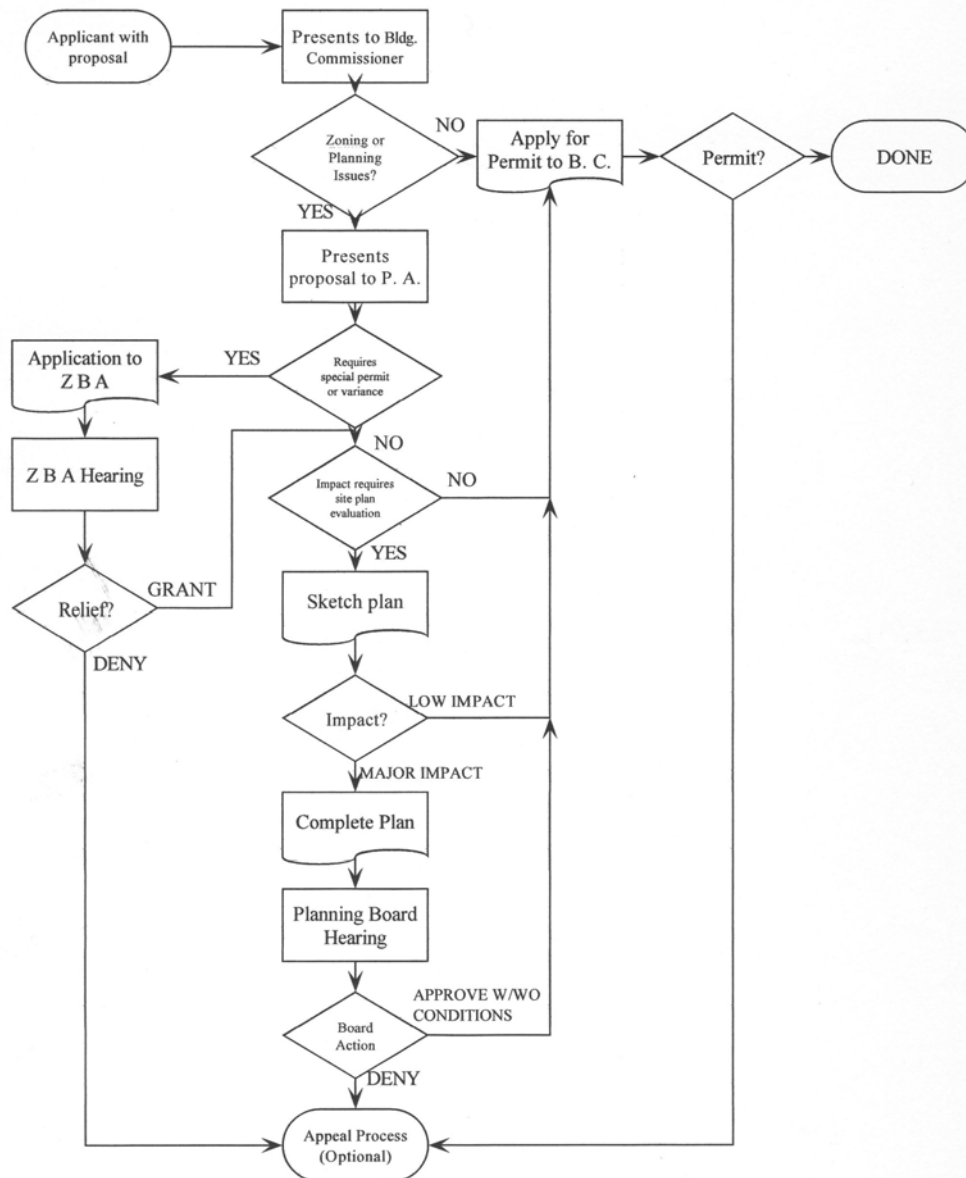
APPENDIX B INCLUSIONARY ZONING REQUIREMENTS

See Sections 4.2.14 and 4.6.8

- A. Affordable dwelling units are defined as those units available to those persons whose household income shall not exceed 80% of area median income based on household size as determined by the Department of Housing and Urban Development (HUD), subject to reasonable household asset limits, and initial purchase prices and resale prices shall be established so that households are not required to spend more than 30% of the income of the household earning 80% of area median income for annual debt service on a mortgage (at 30-year fixed-rates at the time of initial sale), taxes, insurance, and condominium or homeowners fees with no more than a five percent (5%) down-payment, including any required entrance deposit, and which shall be subject to a minimum 99-year long-term restriction to preserve affordability. The preference is for the units to be restricted in perpetuity.
- B. The long-term affordability use restriction shall be approved as to form by legal counsel to the Planning Board, and a right of first refusal upon the transfer of such restricted units shall be granted to the Winchendon Housing Authority (WHA) or other governmental entity, non-profit organization or other entity acceptable to the Planning Board for a period of not less than 120 days after the notice thereof.
- C. Affordable units shall be integrated into the overall development of the project so as to prevent the physical segregation of such units.
- D. The Applicant shall be encouraged to seek designation of the units as affordable units which qualify for the Town of Winchendon's subsidized housing inventory as approved and compiled by the Department of Housing and Community Development (DHCD). The Planning Board may require that the Applicant affirmatively take steps to utilize the WHA, a public agency, a non-profit agency, limited dividend organization, or other appropriate entity, and through a Local Initiative program (LIP) petition or other similar mechanism or program, cause application to be made to DHCD, so as to timely furnish all forms and information necessary to promote the designation of those units referenced in said paragraphs as affordable units qualifying as part of the subsidized housing inventory. The Planning Board may require submission of application, forms and appropriate information to the DHCD as a condition of approval.
- E. The affordable dwelling units required to be created under this section shall be evenly dispersed and allocated among all the types/styles of residential dwelling units at the same ratio as the ratio of the total number of each type to the total number of units.

APPENDIX C REVIEW PROCESS FLOWCHART

Building/Planning/Zoning Flowchart



APPENDIX D: SITE PLAN CHECKLIST

Project:

Submittal Date:

Address:

Checked By:

General

- ☒ X full size sets and x reduced sized sets of plans shall be submitted
- ☐ Set shall be comprised of separate sheets as listed below unless otherwise approved by the Planning Board
- ☐ All plans shall be stamped by Commonwealth of Massachusetts-registered Professional Engineer, Professional Land Surveyor, and/or Professional Landscape Architect
- ☐ All plans oriented so that north arrow points to top of sheet
- ☐ All plans shall be shown at 1" = 40' or less and shall show a graphical scale
- ☐ All plans shall have a title block comprised of the following:
 - Project Title
 - Sheet Title
 - Sheet Number
 - Registrant Stamp (PE, PLS, LA)
 - Engineers name, address
 - Scale
 - Plan Issue Date
 - Plan Revision Date(s)

Cover Sheet

- ☐ Title Block
- ☐ Project name / title
- ☐ Street number and/or lot number
- ☐ Assessor's map and parcel number(s)
- ☐ Name and address of property owner
- ☐ Name and address of engineer
- ☐ Name and address of developer
- ☐ Name and address of architect
- ☐ Name and address of landscape architect
- ☐ Revision Date Block
- ☐ Zoning District
- ☐ Zoning Requirements Table-"Required vs. Provided"
 - Lot Size
 - Lot Frontage
 - Side Yard Setback
 - Front Yard Setback
 - Rear Yard Setback
 - Building Height
 - Lot Coverage
 - Distance from Residential District
 - Parking Spaces
 - Handicap Parking Spaces
 - Parking Lot Setback
 - Parking Lot Perimeter Planting

- Parking Lot Interior Planting
- Landscaping Requirements
- Locus Map (Show all roads and available building information within 1000 feet)
- Planning Board signature block (5 lines)
- Plan Index with latest revision date of each plan

Existing Conditions Plan

- Name of Surveyor
- Date of survey
- Property lines with bearings and distances
- Monuments
- Easements with bearings and distances
- Name of all abutters
- Street names
- Benchmark locations
- Existing Buildings and Structures
- Area of building(s)
- Number of stories
- Principal use
- Setbacks from property lines
- Floor elevations
- Door locations
- Existing Topography: Contours at a minimum of 2' intervals
- Overhead and underground utilities including but not limited to water, sewer, drainage, electric, telephone, cable TV, gas, septic systems, detention structures, wells
- Existing parking/paved areas including pavement type (parking, walkways, etc.)
- Adequate utility information outside the site to verify proposed utility connections
- All utility structure information including rim and invert elevations
- All existing easements
- Existing pavement markings within site and on connecting roads
- Existing features such as walls, curbing, landscaping, trees, walks, fences, trees, lighting, signs, loading areas, dumpster locations, etc...
- Wetlands, floodplain, water protection district delineation including offsets and buffer zones
- Test pit locations including groundwater depths
- Historic buildings within 250 feet

Layout Plan (show appropriate information from Existing Conditions Plan to include topographical contours)

- Proposed Buildings and Structures
- Area of building or additions
- Number of stories
- Principal use
- Floor elevations
- Door locations
- Setback dimensions from property lines
- Parking lot setbacks to property line
- Parking lot grades
- Parking spaces (delineated and dimensioned)
- Handicap parking

- ☐ Handicap access
- ☐ Wheelchair ramps
- ☐ Sidewalks
- ☐ Pavement type(s)
- ☐ Curb type(s) and limits
- ☐ Lighting
- ☐ Signs
- ☐ Pavement markings
- ☐ Loading areas
- ☐ Walls
- ☐ Fences
- ☐ General Landscape areas
- ☐ Dumpster(s)
- ☐ Emergency Vehicle Access
- ☐ Snow Storage Area
- ☐ Construction notes including the following notes:
 - o Any minor modifications to the information shown on the approved site plans shall be submitted to the Building Inspector as a Minor Plan Revision for approval prior to the work being performed.
 - o All handicap parking, ramps, and access shall conform to AAB requirements

Utility and Grading Plan (show appropriate info. from Existing Conditions and Layout Plan)

- ☐ All proposed utilities including but not limited to Water, Sewer, Drainage, Electric, Telephone, Cable TV, Gas, Lighting, Septic Systems, Detention Structures
- ☐ Adequate utility information outside the site to verify proposed utility connections
- ☐ All utility pipe types, sizes, lengths, and slopes
- ☐ All utility structure information including rim and invert elevations
- ☐ All water services, hydrants, gates, shutoffs, tees
- ☐ Utilities shall be underground if possible
- ☐ All transformer locations
- ☐ Required utility easements with bearings and distances
- ☐ Sewer profile showing all utility crossings
- ☐ Sections through detention basin(s)

Include the following notes:

- o The contractor shall obtain a Town Opening Permit prior to any construction within the right of-way
 - o All water and sewer material and construction shall conform to the Town of Winchendon requirements
 - o All water and sewer construction shall be inspected by the Town of Winchendon before being backfilled. The Town shall be notified at least 24 hours prior to the required inspections
- ☐ See Drainage Checklist if detention basin is proposed
 - ☐ Grading at entrance-show spot grades if required
 - ☐ Proposed Topography at a minimum of 2' intervals

Landscape Plan (show appropriate information from Existing Conditions and Layout Plan)

- ☐ Proposed landscaping per Buffer and Parking Lot Planting Zoning Requirements
- ☐ Plant and tree legend

- ☐ Indicate areas to be loamed and seeded
- ☐ Verify sight distances at entrances; plantings located to avoid blocking egress visibility.

Erosion Control Plan (show appropriate information from Existing Conditions and Layout Plan)

- ☐ Haybales or haybale/silt fence combination
- ☐ Anti-tracking area at all construction entrances
- ☐ Protect existing and proposed drainage structures with haybales and or silt sacks
- ☐ Include the following notes:
 - ☐ All erosion control measures shall be in place prior to construction.
 - ☐ Erosion Control shall conform to the Town of Winchendon Conservation Commission requirements as stated in the Order of Conditions.
- ☐ Delineate all stockpile areas
- ☐ Provide safety fencing around stockpiles over 10' in height or otherwise restrict site access

Detail Sheets (typical details)

- ☐ Pavement Section Detail
- ☐ Sidewalk Detail
- ☐ Curb Detail
- ☐ Driveway Detail
- ☐ Wheel Chair Ramp Detail
- ☐ Concrete Pad Detail
- ☐ Catch Basin Detail
- ☐ Drainage Manhole Detail
- ☐ Water/Sewer Trench Details
- ☐ Sewer Manhole Detail
- ☐ Detention Basin Sections
- ☐ Detention Basin Outlet Structure Detail
- ☐ Miscellaneous Detention Basin Details
- ☐ Water and Sewer Trench Sections
- ☐ Flared End Detail
- ☐ Rip Rap Detail
- ☐ Haybale/Silt Fence Detail
- ☐ Retaining Wall Details
- ☐ Tree/Shrub Planting Detail
- ☐ Sign Detail
- ☐ Fence Detail
- ☐ Pavement Marking Details
- ☐ Hydrant Detail
- ☐ Thrust Block Detail

APPENDIX E ADDITIONAL SITE PLAN CONSIDERATIONS

See Article 12

Site Plan Evaluation Any person who proposes any of the following changes in the use of property shall submit a request for site plan evaluation to the planning agent or the chair of the Planning Board. No work on any of these sites shall be started until there has been a finding of no significant impact or the approval of the planning board has been granted and the appeal period therefore has expired;

- Any use requiring a special permit in accordance with section 5.2 Schedule of Use Regulations;
- Any change of use from one use specified in the Schedule of Use Regulations to another use;
- Any proposed use which will require disturbance of more than 10,000 square feet of land area or 35% of the area of the lot, whichever is less;
- Any proposed use which will involve an increase in the impervious area on the lot by more than 5000 square feet. Impervious surfaces include roofs and paved areas.
- Any proposed use which will involve the construction, reconstruction, or modification of a structure (so as to require the issuance of a building permit) when the combined gross floor area of all structures on the property of is 2500 square feet or more.

Contents of Site Plan Evaluation Request Each request for site plan evaluation shall include:

- The applicant: Name, mail address, phone number, and email address (if any) of the applicant, interest of the applicant in the property (e.g. owner, prospective owner, lessee, tenant, prospective lessee, other);
- The property: Location of the property (street and number), assessors map and parcel; area of the property, present use of the property, pictures if available;
- Proposed Use: The intended resulting use of the property;
- A sketch layout of the property (should be to scale but need not be stamped by a surveyor or engineer) of sufficient size to be legible showing the proposed work including structures existing and proposed, driveways, parking areas, sidewalks, proposed excavation, grading, etc.
- A fee determined by the current fee schedule adopted by the planning board.
- Signature of the applicant.

If the applicant feels that major site plan review will be required, a major site plan review application may be submitted in place of the evaluation request.

Evaluation of the Request The planning agent or board chair will examine the request and any other relevant material, may make a site visit, and thereupon make one of the following evaluations:

- The proposed use will have no significant impact on any of the factors in Section 12.6 and therefore no further consideration is needed.
- The proposal is likely to have some impact on the Section 12.6 factors and is referred to the full planning board for a determination, but probably does not require every element of the plan to be addressed. A minor site plan review will be required.
- The proposal is likely to have a serious impact on the Section 12.6 factors and major site plan review will be required. The applicant will be advised to prepare and submit a major site plan review application.

The following criteria for site plans will be used in the site plan evaluation and review procedures:

- Site plans should be designed so that any new or remodeled buildings and other site alterations will meet the requirements of the proposed use with due concern for environmental resources, the qualities of the specific location, available access and egress points, and other aspects of the development,
- The design of the project should be harmonious with nearby existing structures and the street facade in terms of major design elements including but not limited to color, texture, materials, scale, height, setbacks, roof and cornice lines, aperture size and location.
- Plans should integrate the development into the existing terrain and surrounding landscape.
- Any new building construction or other site alteration should be designed so as to provide adequate access to each structure for fire and service equipment and adequate provision for utilities and stormwater drainage.
- The applicant should demonstrate that the integrity of any historic building to be altered by the project will be maintained.
- Plans should allow no net increase in the rate of flow or volume of stormwater runoff (calculated using a 100-year storm event) from the project site consistent with the "Massachusetts" Stormwater Handbook.
- Plans should maximize pedestrian and vehicular convenience and safety both within the site and in relation to adjacent ways. Internal and external traffic circulation, and pedestrian and bicycle access should be adequately provided. Potential traffic impacts both on and off the site, should be mitigated as may be

prescribed by the Board. including, but not limited to, measures designed to reduce automobile trip generation, especially on roadways with demonstrated deficiencies in capacity.

- Plans should provide for landscaping around the perimeter of all structures and the parcel as a whole, including parking areas. Project sites shall be buffered from adjacent uses if required by the Board, preferably with a natural landscaped buffer.
- Plans should minimize the visibility of parking, storage or other outdoor service areas as viewed from public ways or premises residentially used or zoned.
- Plans should minimize lighting intrusion onto other properties and public ways with proper arrangement and shielding, and minimize glare from headlights through plantings or other screening.
- Lighting should be adequate to provide for security and public safety.
- The applicant should be prepared to adequately describe the likely demands on local infrastructure and offer proposals to mitigate such demands on the Town's ability to provide services to the project.

Plans must be prepared by a professional, who is either a registered architect, a landscape architect, an engineer, or a land surveyor and must include the following:

- All plans must be submitted on 24x36 inch paper with a scale of 1" = 100' and show streets, bodies of water, landscape features, topography, historic sites, habitats for endangered species within the parcel and within 200 feet of the parcel and all buildings within the parcel and within 200 feet of the parcel.
- An Existing Conditions Plan showing all existing site features, including but not limited to property lines, easements, buildings, parking lots, utilities, wetlands and topography.
- Location of all streets, utilities, signs, lighting, outdoor storage, trash disposal areas, plantings (existing and proposed), landscaping and screening.
- Zoning District boundary lines.
- All easements, restrictions, variances, special permits and covenants.
- Building floor plans and elevations.
- Proposed alterations to the drainage system, topography or storm water runoff pattern, including direction of flow and means of disposal.
- Provisions for and locations of public sewer and water supply, including fire protection measures.

- All resource and buffer areas subject to protection under the Wetlands Protection Act, Massachusetts General Laws Chapter 131 §40, the Wetland Protection Act Regulations 310 CMR 10.00, the Rivers Protection Act, and the Winchendon Wetland Bylaws (if any) in which any work will occur.
- All properties listed on the National Register of Historic Places or in the Inventory of Historical and Archaeological Assets, on file at the Massachusetts Historical Commission.
- The preparation and submission of a scale model prepared by a Registered Architect or Landscape Architect.
- The Planning Board may require the preparation and submission of a development impact report that may include but not be limited to analysis of the impacts of the proposed project on the environment and infrastructure and services. If the project has received a certificate from the Secretary of Environmental Affairs following the submission of a Final Environmental Impact Report pursuant to the Massachusetts Environmental Policy Act, the Board may only request a copy of the report and additional information regarding impacts not included in as part of the scope for the FEIR.
- Such other information and materials as may be required by the planning board. This may include, but is not limited to: traffic studies; legal opinions; copies of documents; historical data; geological, soil, groundwater, and other analyses and reports.

Request for Comments by Other Boards. The planning board shall submit copies of the application to the Conservation Commission, the Board of Selectmen, the Zoning Board of Appeals, the Board of Health, and the Building Commissioner. Each board shall be requested to provide its comments to the planning board within 35 days of such submittal. A failure to respond shall be considered as lack of objection to the project as submitted.

APPENDIX F. PERFORMANCE PARAMETERS

This section is intended to provide measurable guidelines for the performance or characteristics of development patterns.

Description

Performance Criterion	Zoning Districts					
Sound and Vibration		C1,	C2, R10, R40	R80	I	PD
a. Measured Baseline (dB)		35	30	25	40	35
b. Event (Regular*, *accidents don't count)						
Daytime (7:00-21:00)		70	60	50	80	70
Nighttime and Sunday		60	50	50	70	60
c. Constant Level						
Daytime		35	30	25	40	35
Nighttime and Sunday		30	25	25	35	30
Vibration Event (at lotline – displ. in)		.01	.01	.01	.02	.01
Vibration Constant (at lotline – displ. in)		.0002	.0002	.0002	.0002	.0002

Performance Criterion	Zoning Districts					
Light, Glare and Heat		C1,	C2, R10, R40	R80	I	PD
a. Baseline (lumens/sf)						
Daytime (minimum cloudy day)		5000	5000	5000	5000	5000

Nighttime (maximum full moon)		0.03	0.03	0.03	0.03	0.03
b. Event (Regular*, *accidents don't count) Daytime (7:00-21:00) Nighttime (max at lotline – e.g. autospotlight)		? 1500	? 1000	? 900	? 1500	? 1500
c. Constant Level Nighttime (max at lotline/bldg. peak)		100	50	20	900	100
d. Shadow Level Daytime(max% shadow 3/31noon* from neighboring lot)		80%	50%	25%	80%	80%

- 1) No exterior lighting used for parking lots, recreational facilities in residential areas (L,M)(cf. S. Milwaukee...)
- 2) glare, events (i.e. spots), no light above building height (same lumen level as at lotline).
- 3) no visible flashing/flickering of lights on any regular basis
- 4) appropriate bufferyards may be required of applicant to meet standards if there exists any reasonable doubt that the performance standards will be met.

Water, Air, and Natural Resources

Water and Water Pollution

- 1) Consider EPA limits on pointsource pollutants...
- 2) runoff, permissible impervious surface ratios,
- 3) open space ratios, site capacities,
- 4) protected resources

Air Pollution, Wind, and Odor

- 1) Consider EPA limits on pointsource pollutant, ozone, particulates, ...
- 2) Noxious smells and odors (TON below 2)
- 3) Consider wind tunnel effects. No building arrangement shall create an increase in average wind velocity more than 50%

Flora and Fauna

- 1) Preserve any critical, endangered or historic natural features
- 2) Consider returning to predevelopment landscapes in areas other than built space,
- 3) In built space, use native, non-invasive plants and animals,
- 4) Remove only the natural resources necessary to achieve the built space and no more.

Performance Criterion	Zoning Districts					
Hazards, Electromagnetic, Utility Burden, Solid Waste, Pest, Erosion		C1,	C2, R10, R40	R80	I	PD
a. Electrical Load						
Available 360V triphase		N	N	Y	Y	Y
Large kW consumption		N	SP	SP	Y	Y
Large Utility consumption		N	SP	SP	Y	Y

- 1) Consider fire, explosion, chemical leak, water/flood, avalanche/solid dump risks
- 2) Consider load 360V triphase in certain areas, not in others
- 3) Distance to EM pulse <220V/1m at square of distance is okay
- 4) Consider utility loads, electrical (create surge/dip) or change #lines, gas, water, (data – e.g. >T1 line)
- 5) Consider structures and maintenance that either burdens nature (e.g.greenway infringement, hot water dumping in streams), or that encourage pests (excessive garbage that brings rats/mice, pools that encourage mosquitoes, etc.)

Economic Impacts

- 1) consider density or impacts/cpta,
- 2) Floor to Area Ratio
- 3) To ensure deconcentration of poverty and its deleterious secondary effects, to ensure affordability, LMI housing shall compose 10% of all new developments, but no greater than 20%.
- 4) Catchment of trips formerly out of town,...trips from elsewhere, stops worth detour, stops worth a trip, stops that encourage more spending than would otherwise/normally.

APPENDIX G. REFERENCES

1. Institute of Transportation Engineers – Parking Generation, 3rd Edition, 2004
2. City of Philippi Zoning Ordinance
3. Randall Arendt Better Models for Commercial Development and Conservation Design for Subdivisions
4. Marlborough City Forms
5. Duany, Plater-Zyberk Materials, including SmartCode from Sarasota, Florida.
6. Massachusetts Smart Growth Toolkit
7. Massachusetts Clean Water Toolkit
8. www.cnu.org accessed between November 2005 and March 2006
9. TND Series Design Volumes I and II