

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35

**EXPLANATION OF SIGNIFICANT DIFFERENCES**  
**LAND USE CONTROLS TO RESTRICT USE OF GROUNDWATER**

**For**

**SHEPLEY'S HILL LANDFILL SUPERFUND SITE**  
**FORMER FORT DEVENS, MA**

**Prepared for:**  
**Department of the Army**  
**Base Realignment and Closure Division**  
**Fort Devens, Massachusetts**

**May 2013**

**Prepared by:**  
**Sovereign Consulting Inc.**  
**4 Open Square Way**  
**Holyoke, MA 01040**

**Table of Contents**

36  
37

38 **1. INTRODUCTION**..... 1

39 **2. SUMMARY OF SITE HISTORY AND SELECTED REMEDY**..... 3

40 **2.1 SITE HISTORY** ..... 3

41 **2.1.1. General**..... 3

42 **2.1.2. Shepley’s Hill Landfill Operable Unit**..... 3

43 **2.2 SELECTED REMEDY (INCLUDING CONTINGENCY REMEDY)**..... 5

44 **2.2.1. Remedial Action Objectives** ..... 5

45 **2.2.2. Summary of Existing Remedy** ..... 5

46 **3.1 LAND USE CONTROLS TO RESTRICT GROUNDWATER USE OFF-SITE** ..... 8

47 **4. SUPPORT AGENCY COMMENTS**..... 12

48 **5. AFFIRMATION OF THE STATUTORY DETERMINATIONS**..... 12

49

50 **FIGURES**

51

52 **FIGURE 1** Former Fort Deven's Vicinity Map And Shepley's Hill Landfill

53

54 **FIGURE 2** Shepley's Hill Landfill Site Location Map

55

56 **FIGURE 3** Area Of Land Uses Controls: Northern Impact Area

57

58 **APPENDICES**

59 **APPENDIX A** – Ayer Board of Health Private Well Regulations

60 **APPENDIX B** – Ayer Zoning By-Laws: Building Department Regulations and Permit

61 **APPENDIX C** – Ayer Board of Health Groundwater Use Moratorium

62 **APPENDIX D** – Response to Comments

63 **1. INTRODUCTION**

64

65 This document presents the second Explanation of Significant Differences (ESD) for the  
 66 Shepley's Hill Landfill Operable Unit, inclusive of Areas of Contamination (AOC) 4, 5, and 18,  
 67 at the former Fort Devens. The ESD represents a significant change in remediation approach  
 68 subsequent to the issuance of the Shepley's Hill Landfill Operable Unit Record of Decision  
 69 (ROD), dated September, 1995<sup>1</sup> and the first ESD dated April 2005.<sup>2</sup>

70

<b><i>Site Name and Location</i></b>	
Site Name:	Shepley's Hill Landfill Operable Unit. The Shepley's Hill Landfill includes three AOCs: AOC 4, the sanitary landfill incinerator, AOC 5, sanitary landfill No. 1, and AOC 18, the asbestos cell.
Location:	Fort Devens is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List (NPL) site located in the towns of Ayer and Shirley (Middlesex County) and Harvard and Lancaster (Worcester County), approximately 35 miles northwest of Boston, Massachusetts.
<b><i>Lead and Support Agencies</i></b>	
Lead Agency:	Department of the Army Office of the Assistant Chief of Staff for Installation Management Base Realignment and Closure (BRAC) Division
Contacts:	Robert Simeone, BRAC Environmental Coordinator, Fort Devens, MA, (978) 796-2205
Support Agencies:	United States Environmental Protection Agency (USEPA) and Massachusetts Department of Environmental Protection (MassDEP)
Contacts:	Ginny Lombardo, Remedial Project Manager, USEPA Region One, (617) 918-1754  David Chaffin, Remedial Project Manager, MassDEP Boston HQ Office (617)-348-4005

71

<sup>1</sup> US Army Environmental Center (USAEC), 1995. Record of Decision, Shepley's Hill Landfill Operable Unit, Fort Devens, Massachusetts. September. Signed by EPA New England (Region 1) and by Department of the Army BRAC Division on September 26th 1995 and September 28<sup>th</sup> 1995, respectively.

<sup>2</sup> US Army Base Realignment and Closure (BRAC) Atlanta Field Office (AFO), 2005. Explanation of Significant Differences, Groundwater Extraction, Treatment, and Discharge Contingency Remedy, Shepley's Hill Landfill, Fort Devens, Massachusetts. April. Signed by USEPA New England (Region 1) and by Department of the Army BRAC Division on November 2<sup>nd</sup>, 2005 and November 29<sup>th</sup> 2005, respectively.

72 Under Section 117(c) of the Comprehensive Environmental Response, Compensation, and  
73 Liability Act (CERCLA), and promulgated in 40 CFR Sections 300.435(c)(2)(i) and  
74 300.825(a)(2), if the Army determines that the remedial action at the Shepley's Hill Landfill  
75 Operable Unit (SHL) differs significantly in scope, performance, or cost from the ROD for the  
76 site, the Army shall publish an ESD between the remedial action being undertaken and the  
77 remedial action set forth in the ROD and the reasons such changes are being made. This ESD  
78 includes a brief history of the site, a description of the remedy selected in the ROD, the  
79 contingency remedy specified in the ROD as implemented in the first ESD, and the remedy  
80 changes being implemented under this ESD. Specifically, the Lead and Support agencies have  
81 decided to enhance remedy Land Use Controls<sup>3</sup> (LUCs) by modifying the LUCs in the decision  
82 record for SHL via this ESD in order to further ensure protection of human health and the  
83 environment.

84

85 In accordance with the National Contingency Plan (NCP), Section 300.825(a)(2), the ESD will  
86 become part of the Administrative Record for the Shepley's Hill Landfill Operable Unit. The  
87 Administrative Record contains the ESD and other supporting documents considered by the  
88 Army and the regulatory agencies in developing the ROD for the Shepley's Hill Landfill  
89 Operable Unit. The Administrative Record may be viewed at the Ft. Devens BRAC  
90 Environmental Office (Building 666, 30 Quebec St., Devens, MA 01432) between the hours of  
91 8:30 AM and 5:00 PM, Monday through Friday.

92

93

---

<sup>3</sup> Land Use Controls as defined by EPA guidance document (Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites, EPA-540-R-09-001, December 2012):

*EPA defines (Institutional Controls) ICs as non-engineered instruments, such as administrative and legal controls, that help to minimize the potential for exposure to contamination and/or protect the integrity of a response action. ICs typically are designed to work by limiting land and/or resource use or by providing information that helps modify or guide human behavior at a site. ICs are a subset of Land Use Controls (LUCs). LUCs include engineering and physical barriers, such as fences and security guards, as well as ICs.*

94 **2. SUMMARY OF SITE HISTORY AND SELECTED REMEDY**

95  
96 The following sections contain a brief history of the site, an overview of site contamination and  
97 risks, a description of the remedy selected in the ROD, and the contingency remedy specified in  
98 the ROD as implemented in the first ESD.

99  
100 **2.1 SITE HISTORY**

101  
102 **2.1.1. General**

103  
104 The former Fort Devens is located 35 miles west of Boston in north-central Massachusetts within  
105 the towns of Ayer and Shirley in Middlesex County, and the towns of Harvard and Lancaster in  
106 Worcester County. Prior to realignment and closure in 1996, Fort Devens included 9,280 acres  
107 divided into North Post, Main Post, and South Post. Figure 1 depicts the location of the various  
108 areas of the former base. The North and Main Posts are separated from the South Post by  
109 Massachusetts Route 2. The Nashua River runs through the North, Main and South Posts and the  
110 area around the former Fort Devens is primarily rural/residential. Currently, the U.S. Army  
111 Garrison Fort Devens (formerly the Devens Reserve Forces Training Area) consists of 5,196  
112 acres primarily on South Post.

113  
114 Camp Devens was created as a temporary cantonment in 1917 for training soldiers from the New  
115 England area. In 1932, the camp was formerly dedicated as Fort Devens and trained active duty  
116 personnel for World War II, the Korean and Vietnam Wars. In July of 1991, the North and Main  
117 Posts of Fort Devens were slated for closure and the South Post for realignment, for tactical  
118 training of Army Reserves, under the Defense Base Realignment and Closure Act of 1990. The  
119 installation ceased to be Fort Devens on March 31, 1996 at which time the remaining Army  
120 mission was assimilated as the Devens Reserve Forces Training Area.

121  
122 The U.S. Environmental Protection Agency (EPA) placed the former Fort Devens on its National  
123 Priorities List (NPL) on November 21, 1989. Since listing, investigation and cleanup activities  
124 have been occurring to protect human health and the environment and facilitate property  
125 redevelopment.

126  
127 **2.1.2. Shepley's Hill Landfill Operable Unit**

128  
129 SHL encompasses approximately 84 acres in the northeast corner of the former Main Post at Fort  
130 Devens (Figure 2). It is situated between the bedrock outcrop of Shepley's Hill on the west and  
131 Plow Shop Pond on the east. Nonacoicus Brook drains Plow Shop Pond and flows through a  
132 low-lying wooded area at the north end of the landfill. The southern end of the landfill borders  
133 an area formerly occupied by the Defense Reutilization and Marketing Office (DRMO) yard,

134 motor repair shops, and a warehouse. Areas previously mapped as wetlands have been filled by  
135 waste materials. The landfill waste material was placed over peat deposits and a sandy aquifer  
136 that overlies bedrock and/or till<sup>4</sup>.

137  
138 SHL includes three Areas of Contamination (AOCs): AOC 4, the sanitary landfill incinerator;  
139 AOC 5, sanitary landfill No. 1 or Shepley's Hill Landfill; and AOC 18, the asbestos cell. AOCs  
140 4, 5, and 18 are all located within the capped area at SHL. The three AOCs are collectively  
141 referred to as Shepley's Hill Landfill Operable Unit. In an effort to mitigate the potential for off-  
142 site contaminant migration, Fort Devens initiated the Fort Devens Sanitary Landfill Closure Plan  
143 in 1984 in accordance with Massachusetts regulations (310CMR 19.00, April 21, 1971). The  
144 MassDEP (then the Department of Environmental Quality Engineering) approved the plan in  
145 1985. Closure plan approval was consistent with 310 CMR 19.00. The capping was completed  
146 in four phases. In Phase I, 50 acres were capped in October 1986; in Phase II, 15 acres were  
147 capped in November 1987; and in Phase III, 9.2 acres were capped in March 1989. The Phase  
148 IV closure of the last 10 acres was accomplished in two steps: Phase IV-A was closed in 1991,  
149 and Phase IV-B was closed as of July 1, 1992, although the geomembrane cap was not installed  
150 over Phase IV-B until May 1993.

151  
152 Because of the large area and shallow surface slope of the existing landfill, early phases of the  
153 landfill closure were completed with a 2 or 3 percent surface slope. Slopes were increased to 5  
154 percent in Phase IV-B. Phases I through IV-A were capped with a 30-mil polyvinyl chloride  
155 (PVC) geomembrane overlain with a 12-inch drainage layer and 6-inch topsoil layer. At the  
156 request of MassDEP, the Phase IV-B cap design was modified to include a 40-mil PVC  
157 geomembrane, a 6-inch drainage layer, and a 12-inch topsoil layer. A landfill-gas collection  
158 system consisting of 3-inch diameter gas-collection pipes bedded in a minimum 6-inch thick gas-  
159 venting layer was installed beneath the PVC geomembrane in all closure phases. Gas vents were  
160 installed through the PVC geomembrane at 400-foot centers. A minimum 6-inch  
161 cushion/protection layer was maintained between the geomembrane and underlying waste. The  
162 Army submitted a draft closure plan to MassDEP on July 21, 1995 to document that SHL was  
163 closed in accordance with plans and applicable MassDEP requirements. The MassDEP issued a  
164 Capping Compliance Letter on February 8, 1996, concurring in the closure and establishing  
165 conditions for Monitoring and Maintenance of the Landfill Post Closure.

166  
167 The Army performed a remedial investigation (RI) and a supplemental RI at SHL in accordance  
168 with CERCLA between 1991 and 1993. The RI and RI Addendum reports identified potential  
169 human exposure to arsenic in groundwater as the primary risk at SHL. Currently, based on  
170 available survey records, there is no significant risk to human health, but such a risk could exist  
171 if groundwater was a source of drinking water. Arsenic levels are above acceptable human

---

<sup>4</sup> Shepley's Hill Landfill Supplemental Groundwater and Landfill Cap Assessment for Long-term Monitoring and Maintenance – Addendum Report, August 2011.

172 health risk levels for potential future exposure pathways that include drinking water. A  
173 Feasibility Study was performed in 1995 to evaluate alternatives to reduce potential exposure  
174 risks, and in September 1995, the ROD was finalized.

175

## 176 **2.2 SELECTED REMEDY (INCLUDING CONTINGENCY REMEDY)**

177

### 178 **2.2.1. Remedial Action Objectives**

179

180 Remedial action objectives (RAOs) are project objectives identified to ensure the protection of  
181 public health or welfare and the environment. The following RAOs were stipulated in the 1995  
182 ROD:

183 1) Protect potential residential receptors from exposure to contaminated groundwater  
184 migrating from the landfill having chemicals in excess of MCLs.

185

186 2) Prevent contaminated groundwater from contributing to the contamination of Plow Shop  
187 Pond sediments in excess of human health and ecological risk-based concentrations.

188

189 The ROD did not identify remedial objectives for surface soil, landfill gas, or leachate because  
190 the risk assessments did not identify potential risks from exposure to surface soil and ambient air.  
191 Leachate was not identified during the RI or supplemental RI activities.

192

193 The Plow Shop Pond Operable Unit (OU) was established under AOC 72 to evaluate additional  
194 actions that may be necessary to manage potential risks from exposure to Plow Shop Pond  
195 surface water and sediment. The Army and USEPA performed surface water and sediment  
196 characterization as well as sediment toxicity characterization in Plow Shop Pond and Grove  
197 Pond from 1992 through 2010. Results of these studies were reported in the RI Addendum  
198 Report (ABB-ES, 1993); the Draft Plow Shop Pond and Grove Pond Sediment Evaluation  
199 (ABB-ED, 1995c); the Final Expanded Site Investigation (ESI): Remedial Oversight of  
200 Activities at Fort Devens, Plow Shop Pond and Grove Pond (USEPA, 2006); Final SA 71  
201 Sediment Risk Characterization (MACTEC, 2008); and the Draft Final Remedial Investigation  
202 for AOC 72, Plow Shop Pond (AMEC, 2011).

203

204

### 205 **2.2.2. Summary of Existing Remedy**

206

207 The ROD describes two alternatives, Alternative SHL-2 (Limited Action) and Alternative SHL-9  
208 (Groundwater Pump and Discharge to the Ayer POTW), which became the primary and  
209 contingency elements of the selected remedy for the SHL remedial action. The ROD required  
210 the Army to perform groundwater monitoring and five-year reviews to evaluate the effectiveness  
211 of the selected remedial action (Alternative SHL-2), which relied on the previously installed

212 landfill cap to attain groundwater cleanup goals by 2008 and to reduce potential exposure risks.  
213 The ROD and the Long Term Monitoring and Maintenance Plan established incremental  
214 reduction of risk rather than incremental reduction in concentration of individual contaminants as  
215 a measure of progress toward attainment of cleanup levels to focus on the cleanup of arsenic,  
216 which is the primary contributor to potential risk. The required incremental reduction in risk was  
217 not achieved and the Army decided to implement the contingent element of the selected remedy  
218 as documented in the first ROD ESD.

219  
220 Alternative SHL-2 contains components to maintain and potentially improve the effectiveness of  
221 the existing landfill cover system and to satisfy the Landfill Post-Closure Requirements of 310  
222 CMR 19.142 to reduce potential future exposure to contaminated groundwater. Key components  
223 of this alternative include:

- 224
- 225 • landfill closure in accordance with applicable requirements of 310 CMR 19.000;
  - 226 • survey of Shepley's Hill Landfill;
  - 227 • evaluation/improvement of storm water diversion and drainage;
  - 228 • landfill cover maintenance;
  - 229 • landfill gas collection system maintenance;
  - 230 • long-term groundwater monitoring;
  - 231 • long-term landfill gas monitoring;
  - 232 • institutional controls;
  - 233 • educational programs;
  - 234 • 60 percent design of a groundwater extraction system;
  - 235 • annual reporting to MassDEP and USEPA; and
  - 236 • five-year site reviews

237  
238 Alternative SHL-9, involving active extraction of groundwater, was selected as a contingency or  
239 supplement to SHL-2, should it not prove to be effective at controlling site risk.

240  
241 The following selected remedy components related to this ESD and how they were implemented  
242 are described in greater detail below.

243  
244  
245 Existing SHL Remedy Institutional Controls (ICs):

246  
247 From the SHL ROD;

248 *Institutional controls are proposed in the form of zoning and deed restrictions for*  
249 *any property released by the Army at Shepley's Hill Landfill during Fort Devens*  
250 *base-closure activities. The Fort Devens Preliminary Reuse Plan, Main and North*

251 *Posts has proposed that Army land bordering Plow Shop Pond be zoned for open*  
252 *space and rail-related uses. By pre-empting residential use, these controls would*  
253 *help limit human exposure. In addition, the Army would place deed restrictions on*  
254 *landfill area property to prohibit installation of drinking water wells. This, in*  
255 *combination with landfill capping and long-term groundwater monitoring, would*  
256 *protect potential human receptors from risks resulting from exposure to*  
257 *contaminated groundwater. There are no current human receptors for*  
258 *groundwater exposure. Institutional controls would be drafted, implemented, and*  
259 *enforced in cooperation with state and local governments.*

260  
261 These ROD remedy requirements were implemented by Army as follows:

262  
263 *Land Use Zoning:*

264  
265 Land use for the SHL and surrounding Army property is governed by the Devens Reuse  
266 Plan<sup>5</sup> which was approved by the towns of Ayer, Harvard and Shirley on December 7, 1994. The  
267 zoning or permitted land use for SHL and surrounding Army property per this plan is Open  
268 Space/Recreation which is further defined in the Devens Open Space and Recreation Plan<sup>6</sup>. As  
269 stated in the SHL ROD, this IC component restricts residential use of the SHL and surrounding  
270 Army property, and therefore limits human exposure. The Army's long-term monitoring and  
271 periodic inspections of the SHL and surrounding Army property ensure that this zoning layer is  
272 being enforced by MassDevelopment, the Land Redevelopment Authority (LRA).

273  
274 *Deed Restrictions:*

275  
276 The SHL property remains in Army ownership and is under a Lease in Furtherance of  
277 Conveyance (LIFOC) Agreement<sup>7</sup> with the LRA, pursuant to BRAC policy requirements. A  
278 Finding of Suitability to Transfer (FOST) has not been executed by the Army for this lease  
279 premise known as Parcel A.1 (SHL) (See Figure 3) since the SHL remedy has not been  
280 determined to be Operating Properly and Successfully (OPS). The SHL ROD requirement for  
281 the ICs to “*protect potential human receptors from risks resulting from exposure to*  
282 *contaminated groundwater*” is implemented and enforced by the Army through the LIFOC  
283 agreement. Specifically, Article 16.05 states “*No groundwater will be extracted for any*  
284 *purpose.*” The Army long-term monitoring and periodic inspections of the SHL and surrounding  
285 Army property ensure that this use restriction is in compliance per the LIFOC agreement. Once  
286 the SHL remedy is determined to be OPS, the Army will execute a FOST and the property will

---

<sup>5</sup> *Devens Reuse Plan*. Prepared by VHB 1994.

<sup>6</sup> *Devens Open Space and Recreation Plan*. Prepared for Massachusetts Development by Cicil and Rizvi, Inc. 1996.

<sup>7</sup> Department of the Army Lease in Furtherance of Conveyance of Real Property and Facilities on the Fort Devens, Massachusetts, Military Reservation, dated May 9, 1996.

287 be transferred by deed to the LRA. This deed will include similar provisions as the LIFO  
288 agreement to ensure the SHL remedy remains protective of human health and environment.

289

290 Alternative SHL-9, (active extraction of groundwater) or the Contingency Remedy:

291

292 Post-ROD groundwater monitoring results indicated that the selected remedy, Alternative SHL-  
293 2, would not meet risk-based arsenic performance standards. Therefore, the Army issued an  
294 ESD, Groundwater Extraction, Treatment, and Discharge Contingency Remedy for SHL (CH2M  
295 Hill, 2005), and implemented the contingency remedy, Alternative SHL-9. The Army installed  
296 and started full time operation of a groundwater extraction and treatment system, generally  
297 referred to as the Arsenic Treatment Plant (ATP), in March 2006 to address groundwater  
298 contamination emanating from beneath the northern portion of the landfill. As anticipated in the  
299 ROD and ESD, the objective of the ATP was to provide for aquifer restoration in the area down  
300 gradient of the landfill, now generally referred to as the northern impacted area or NIA. In July  
301 2007 the ATP flow rate was increased from 25 to 50 gpm. The ATP system treated and  
302 discharged approximately 22 million gallons of groundwater during 2011, bringing the  
303 cumulative treatment total to approximately 101 million gallons and 2,696 pounds of arsenic  
304 removed through 2011<sup>8</sup>.

305

306 Since the time of the ROD, a more comprehensive understanding of the remedy Conceptual Site  
307 Model (CSM), groundwater chemistry in particular, has developed which indicates that a large  
308 amount of arsenic is being mobilized by natural as well as landfill-induced conditions. This  
309 CSM and the complex groundwater contamination problems have increased the uncertainty that  
310 the remedy will meet the aquifer restoration goals.

311

### 312 **3. SIGNIFICANT DIFFERENCES AND THE BASIS FOR THOSE DIFFERENCES**

313

314 This ESD documents a modification to the SHL ROD for a remedy component that significantly  
315 changes, but does not fundamentally alter, the selected remedy. The only significant differences  
316 in the remedy as detailed in the ROD are the incorporation of additional LUC language as an  
317 enforceable component of the ROD that will further protect potential receptors from exposure to  
318 contaminated groundwater migrating from the landfill having chemicals in excess of Maximum  
319 Contaminant Levels (MCLs). A summary of the LUCs to be implemented at the Site are  
320 specified below.

321

#### 322 **3.1 LAND USE CONTROLS TO RESTRICT GROUNDWATER USE OFF-SITE**

323

---

<sup>8</sup> *Shepley's Hill Landfill and Treatment Plant Long Term Monitoring and O&M, 2011 Annual Report.*

324 The current ROD does not specifically address LUCs for any non-Army property located north  
325 of the landfill (i.e., the groundwater impacted off-site that includes properties in Ayer along West  
326 Main Street, north of the landfill, or the “north impacted area” or NIA), because the extent of the  
327 impact was not defined at the time (See Figure 3). Post-ROD investigations have established  
328 that the SHL has impacted groundwater within the NIA as documented in the *Supplemental*  
329 *Groundwater Investigation Report* (Harding ESE, 2000); the *Supplemental Groundwater &*  
330 *Landfill Cap Assessment for Long-Term Monitoring & Maintenance* (AMEC, 2009) and the  
331 *Supplemental Groundwater & Landfill Cap Assessment for Long-Term Monitoring &*  
332 *Maintenance Addendum Report* (Sovereign 2011).

333  
334 The LUCs implemented pursuant to this ESD address the RAO to protect potential residential  
335 receptors from exposure to contaminated groundwater in excess of MCLs, until remedial goals  
336 have been met, as stipulated in the ROD. In addition, the LUCs will also protect any commercial  
337 receptors from exposure to contaminated groundwater.

### 338 339 **3.1.1. Land Use Control Performance Objectives**

340  
341 Groundwater in the NIA would pose an unacceptable risk to human health if used for drinking  
342 water and may cause unacceptable risk to human health if used for irrigation purposes.  
343 Therefore, administrative and/or legal land use controls known as "LUCs" are being incorporated  
344 as a component of the selected groundwater remedy for the Site.

345  
346 The performance objectives of the LUCs shall be to:

- 347
- 348 • Restrict access to groundwater so the potential exposure pathway to the contaminants  
349 would remain incomplete.
  - 350
  - 351 • Prohibit the withdrawal and/or future use of water, except for monitoring, from the  
352 aquifer within the identified groundwater LUC boundary (Figure 3).
  - 353
  - 354 • Maintain the integrity of any current or future monitoring system.
  - 355

356 To meet these objectives, the Army has established the Area of Land Use Controls where the use  
357 of groundwater will be restricted via this ESD (See Figure 3). This area is based on the defined  
358 limits of groundwater contamination as documented by the site investigations referenced in  
359 Section 3.1. The LUC boundary limits were then set approximately 400 feet from the horizontal  
360 limits of groundwater contamination in order to conservatively establish the restricted area.

361  
362 The SHL and surrounding Army controlled property, also shown on Figure 3, are *not* addressed  
363 under these additional LUCs since this property is addressed in the initial ROD as described in

364 Section 2.2.2. Also, it is noted that the Army property is within the Devens Regional Enterprise  
365 Zone (under jurisdiction of Devens) and the NIA is within the Town of Ayer jurisdiction.

366  
367 This ESD documents decisions and provides notification relating to implementation of the LUCs  
368 restricting use of groundwater within the area defined herein – the area potentially impacted by  
369 SHL.

370

371 **3.1.2 Land Use Controls**

372

373 To meet the LUC performance objectives, the following institutional controls in the form of  
374 governmental permitting, zoning, public advisories, prohibitive directives (e.g., no drilling of  
375 drinking water wells) and other ‘legal’ restrictions will be utilized within the NIA.

376

- 377 • The Zoning By-Laws of the Town of Ayer (Final 2009; Site Plan Review, revised 1999);  
378 Town of Ayer Building Department Permitting Requirements – Town of Ayer zoning,  
379 permitting and building requirements to which the use of all new or existing buildings,  
380 other structures or land must comply (Attached as Appendix A).

381

382 This LUC layer ensures that any new building or structure and any land use comply with  
383 town regulations, by-laws and requirements. Specifically, Article 10 - Site Plan Review  
384 requires that new developments have approved site plans that comply with the Ayer  
385 Zoning By-laws and the Subdivision Control Regulations including a Utility Plan that  
386 identifies all municipal water and sewer and the requirement to connect to the public  
387 utilities when located within 400 feet of the property. This requirement is also specified  
388 in the Ayer Building Department’s minimum documentation and drawings required for  
389 Residential Building Permits.

390

- 391 • Moratorium on Groundwater Use within the Area of Land Use Controls - The Ayer BOH  
392 has issued a Moratorium on Groundwater Use (Attached as Appendix B) within the Area  
393 of Land Use Controls .

394

395 This LUC will provide additional controls or restrictions on access to groundwater for the  
396 purpose of potable use or irrigation within the Area of Land Use Controls as defined by  
397 Figure 3 (including any future revisions). This measure prohibits any and all uses of  
398 groundwater use in the defined area.

399

- 400 • The Ayer Board of Health (BOH) Well Regulations (Adopted January 10, 2001) – Town  
401 of Ayer permitting requirements for the installation and use of new drinking water wells  
402 (Attached as Appendix C).

403

404 The Area of Land Use Controls has been serviced by public water since approximately  
405 the 1930s and therefore, the installation of new private wells is not allowed per town  
406 zoning by-laws and building permitting requirements. In the unlikely event that an  
407 application for a private well construction permit were submitted to the Ayer BOH for  
408 approval, this LUC layer would ensure that a private well would not be permitted with  
409 the Area of Land Use Controls. Specifically, the requirement to identify any and all  
410 sources of potential contamination within 400 feet of the proposed well site as part of the  
411 permitting process would prevent the installation of any new private wells in this area.

- 412
- 413 • The Massachusetts Drinking Water Regulation 310 CMR 22.00 – the state regulatory  
414 permitting and approval process for any new drinking water supply wells in  
415 Massachusetts that propose to service more than 25 customers or exceed a withdrawal  
416 rate of 100,000 gallons per day.

417

418 This LUC layer ensures that the locating of a new or expanding source of public water  
419 supply will follow a rigorous screening, evaluation and approval process. For example,  
420 the screening process requires the identification of potential environmental threats within  
421 one-half mile of the proposed site. Based on this process, the Area of Land Use Controls  
422 would not meet the criteria for locating a public water supply. It is also noted that areas  
423 along West Main Street are already defined as a Non-Potential Drinking Water Source  
424 Area per MassDEP.

425

426 In addition, the Army will implement the following affirmative measures to further ensure that  
427 the LUC performance objectives are being met.

- 428
- 429 • Public education and outreach via ongoing periodic distribution of educational materials  
430 and groundwater use surveys to be distributed to all property owners and residents with  
431 the stated goal of confirming that no groundwater wells are in use within the entire Area  
432 of LUCs.

433 The Army will contact land owners and residents in the Area of LUCs to explain the  
434 groundwater contamination distribution in the aquifer and the health impacts that may  
435 result from drinking contaminated groundwater, using contaminated groundwater for  
436 irrigation or otherwise contacting contaminated groundwater and that installation of wells  
437 that draw groundwater from the contaminated aquifer is prohibited. Private property  
438 owners have an independent obligation to comply with the applicable statutes,  
439 regulations, and zoning requirements.

- 440 • Meet with the Ayer BOH on an annual basis, or more frequently if needed, to discuss the  
441 implementation of LUCs and provide an updated Area of Land Use Control map(s) that

442 document the current and projected location of groundwater contamination within the  
443 Town of Ayer. While Figure 3 shows the current area of the NIA where the LUCs apply,  
444 the Ayer BOH or the Army may modify the areas based on new information, and all  
445 LUCs will apply to such areas based on revisions to Figure 3.

446  
447 All LUCs will be maintained until either (1) the concentrations of COCs in the groundwater are  
448 at such levels as to allow unrestricted use and exposure, or (2) the Army, with the prior  
449 coordination/concurrence of the Town of Ayer, EPA and MassDEP, that the LUCs are no longer  
450 required or the LUCs should be modified.

451  
452 The Army will monitor and report on the implementation, maintenance, and enforcement of land  
453 use controls, and coordinate with federal, state, and local governments and owners and occupants  
454 of properties subject to land use controls. Although the Army may later transfer these procedural  
455 responsibilities to another party by contract or through other means, the Army shall retain  
456 ultimate responsibility for remedy integrity. The Army will provide notice of the groundwater  
457 contamination and any land use restrictions referenced in the ESD. The Army will send these  
458 notices to the federal, state and local governments involved at this site and the owners and  
459 occupants of the properties subject to those use restrictions and land use controls. The Army  
460 shall provide the initial notice within 3 months of ESD signature. The frequency of subsequent  
461 notifications will be described in the LUCIP for the ESD. The Army remains responsible for  
462 ensuring that the remedy remains protective of human health and the environment. The Army  
463 will fulfill its responsibility and obligations under CERCLA and the NCP as it implements,  
464 maintains, and reviews the selected remedy.

465  
466 A Land Use Control Implementation Plan (LUCIP) will be prepared to describe the actions for  
467 all LUCs described in this ESD, including implementation, maintenance and periodic  
468 inspections. The Army shall prepare a draft LUCIP within 3 months of ESD signature.

469  
470  
471

472 **4. SUPPORT AGENCY COMMENTS**

473  
474 The USEPA and the MassDEP have worked with the U.S. Army in developing the SHL remedy  
475 changes described in this ESD document. All comments received on the draft ESD have been  
476 addressed by the Army and incorporated into this document.

477  
478 **5. AFFIRMATION OF THE STATUTORY DETERMINATIONS**

479  
480 The proposed change to the selected remedy described in the ROD continues to satisfy all of the  
481 statutory requirements of CERCLA and the NCP. Considering the new information that has been

482 developed and the proposed change to the selected remedy, the Army believes that the remedy  
483 remains protective of human health and the environment, complies with federal and state  
484 requirements that are applicable or relevant and appropriate to this remedial action, and is cost  
485 effective  
486

## 487 **6. PUBLIC PARTICIPATION ACTIVITIES**

488

489 The Army meets regularly with stakeholders through BRAC clean-up team (BCT) meetings and  
490 quarterly Restoration Advisory Board (RAB) meetings to discuss clean up status at the former  
491 Fort Devens and, more specifically, monitoring and other data relating to the Shepley's Hill  
492 Landfill Operable Unit. These meetings have involved discussions of monitoring data relating to  
493 groundwater investigations and compliance monitoring, annual reports, and five year reviews  
494 evaluating performance of the selected alternative. At the RAB meeting on November 15, 2012,  
495 the ESD remedy component (LUCs to restrict access to groundwater) were presented and  
496 discussed.  
497

498 In accordance with 40 CFR Section 300.435(c)(2)(i) of the National Contingency Plan, this ESD  
499 and other supporting documents are available in the Administrative Record maintained by the  
500 Army. The Administrative Record may be viewed at the Ft. Devens BRAC Environmental  
501 Office (Building 666, 30 Quebec St., Devens, MA 01434) between the hours of 8:30 AM and  
502 5:00 PM, Monday through Friday, by calling (978) 796-2205.  
503

504 Public notice relating to the availability of the ESD for review was made in the Nashoba  
505 Publishing papers, Lowell Sun, and Fitchburg Sentinel on [November XX, 2013]. A voluntary  
506 30 day public comment period beginning [November XX, 2013 and ending [December XX,  
507 2013] was held by the Army to solicit public comment on this Explanation of Significant  
508 Differences.  
509

510 **AUTHORIZING SIGNATURES**

511  
512 The forgoing Explanation of Significant Differences has been prepared to document changes in  
513 the selected and contingency remedies from the Record of Decision as required by Section  
514 117(a) of CERCLA. The forgoing represents the selection of a remedial action by the U.S.  
515 Department of the Army and U. S. Environmental Protection Agency, with review and comment  
516 by the Massachusetts Department of Environmental Protection.

517  
518 Concur and recommend for immediate implementation.

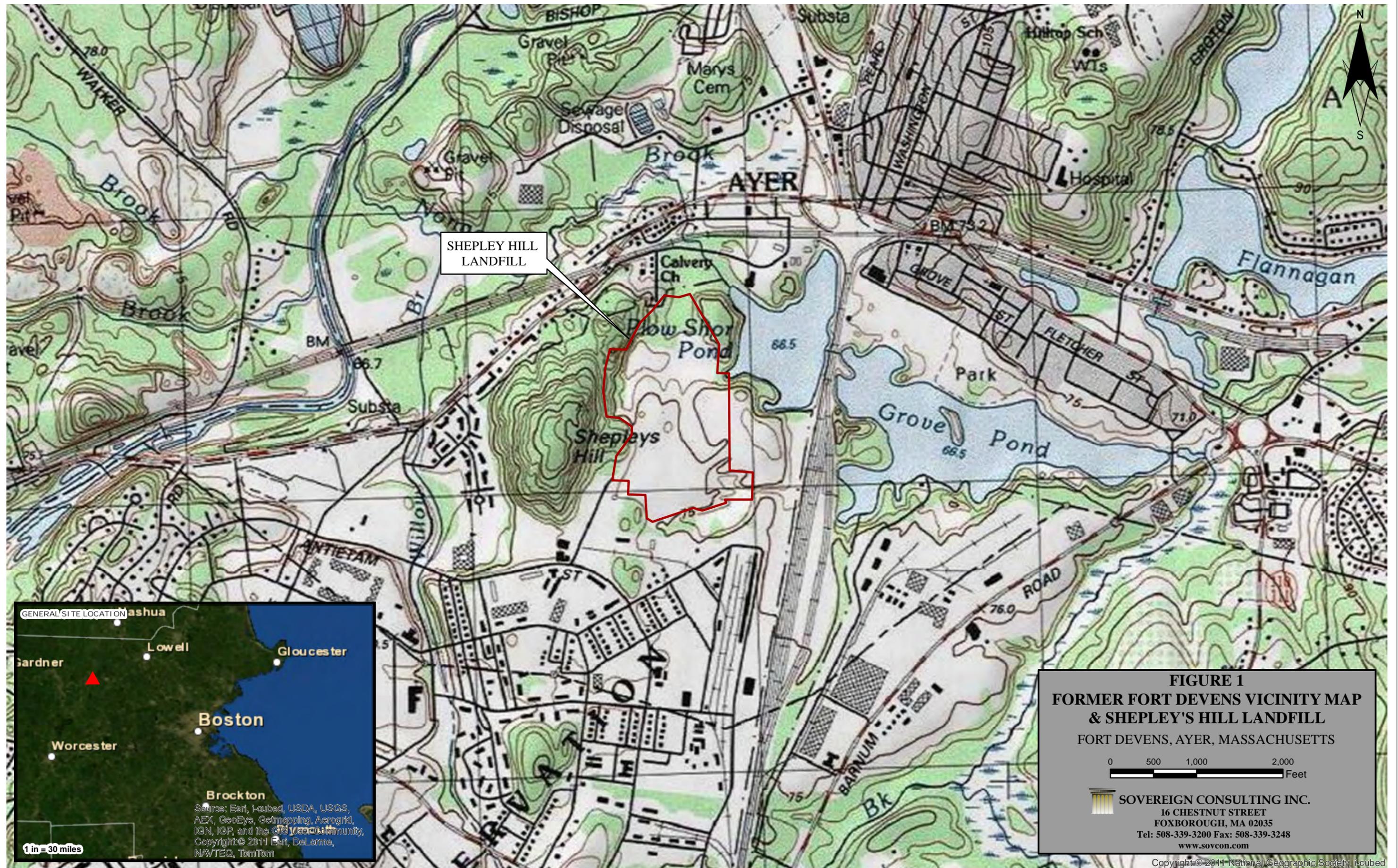
519  
520 **U.S. DEPARTMENT OF THE ARMY**

521  
522  
523  
524  
525 \_\_\_\_\_ Date \_\_\_\_\_  
526 Robert J. Simeone  
527 BRAC Environmental Coordinator  
528 Department of the Army  
529 Base Realignment and Closure Division

530  
531  
532  
533  
534 **U.S. ENVIRONMENTAL PROTECTION AGENCY**

535  
536  
537  
538  
539 \_\_\_\_\_ Date \_\_\_\_\_  
540 James T. Owens III  
541 Chief, Office of Site Remediation and Restoration  
542 U.S. EPA Region I

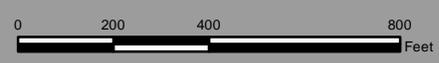
543  
544





**FIGURE 2**  
**SHEPLEY'S HILL LANDFILL**  
**SITE LOCATION MAP**

SHEPLEY'S LANDFILL  
FORT DEVENS, AYER, MASSACHUSETTS



 **SOVEREIGN CONSULTING INC.**  
16 Chestnut Street, Foxborough, MA 02035  
Tel: 508-339-3200 [www.sovcon.com](http://www.sovcon.com)

Source: Esri, 1-cube, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



**Figure 3**  
**Area of Land Use Controls: North Impacted Area**

0      600      1,200      2,400  
 Feet

**U.S. Army BRAC Environmental Program**  
**Shepley's Hill Landfill, Devens, Massachusetts**


**SOVEREIGN CONSULTING INC.**

NEAREST PUBLIC WATER SUPPLIES

2,000 Feet

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

Town of Ayer, MA



Zoning Bylaws

Adopted March 3, 1973  
Current to October 6, 2006

FINAL  
ZONING BYLAW REORGANIZATION  
2009

ARTICLE 1. GENERAL PROVISIONS .....	5
1.1 Title and Authority .....	5
1.2 Purpose.....	5
1.3 Scope .....	6
1.4 Severability .....	6
ARTICLE 2 . DEFINITIONS.....	7
2.1 Meaning of Certain Words.....	7
2.2 Definitions .....	7
ARTICLE 3 ZONING DISTRICTS .....	19
3.1 Establishment of Districts .....	19
3.2. Boundaries of Districts Defined.....	19
3.3 District Regulations.....	21
3.3.1 Residential Districts.....	21
3.3.2 Commercial Districts.....	30
3.3.3 Industrial Districts.....	36
3.3.4 Health Care Service District (HCS).....	41
3.3.5 Overlay Districts .....	45
ARTICLE 4. USE REGULATIONS .....	62
4.1. Regulation of Agriculture, Floriculture and Horticulture and Permaculture.....	62
4.2. Use of Land or Structures for Religious and Educational Purposes.....	62
4.3 Nonconforming Uses, Structures and Lots. ....	62
4.3.1 Nonconformity by Initial Enactment or Amendment.....	62
4.3.2 Extension and Alteration. ....	62
4.3.3 Pre-existing Nonconforming structures or uses may be changed. extended or altered. 62	62
4.3.4 A Conforming Use on a Pre-existing nonconforming Lot or in a Pre-existing Nonconforming Structure may be changed, extended or altered: .....	63
4.3.5 Single Lot Exemption for Single and Two-Family Use.....	64
4.3.6 Abandonment.....	64
4.3.7 Change, Extension or Alteration of a Pre-Existing Nonconforming Lot.....	64
4.4 Table of Use Regulations.....	65
ARTICLE 5. DIMENSIONAL REGULATIONS.....	69
5.1 Applicability .....	69
5.2 Frontage Requirement on Developed Streets .....	69
5.3 More Than One Building on a Parcel .....	69
5.4 Corner Lots .....	69
5.5 Cornices and Eaves .....	70
5.6 Maintenance of Minimum Required Dimensions.....	70
5.7 Division of Developed Lots.....	70

5.8	Location of Accessory Structures.....	70
5.9	Floor Area .....	70
5.10	Corner Clearance .....	71
5.11	Gasoline Filling and/or Service Stations .....	71
5.12	Regulations for Lot Area, Yards Set back, Building and Structure Heights .....	72
ARTICLE 6. OFF STREET PARKING.....		73
6.1	Off-Street Parking Regulations.....	73
6.2	Application of Parking Requirements .....	75
6.3	Location and Layout of Parking Facilities.....	75
6.4	Shared Parking.....	76
6.5	Parking Standards .....	78
ARTICLE 7. SPECIAL DEVELOPMENT REGULATIONS.....		79
7.1	Cluster Development .....	79
7.1.1	Applicability .....	79
7.1.2	Definition and Purpose .....	79
7.1.3	Use and Dimensional Standards .....	80
7.1.4	Area Regulations for Cluster Development.....	81
7.1.5	Affordable Dwelling Units .....	81
7.1.6	Cluster Development Design Guidelines.....	82
7.1.7	Application Contents and Process .....	87
7.1.8	Preliminary Development Plan Submission .....	91
7.1.9	Definitive Development Plan Contents.....	93
7.1.10	Planning Board Findings and Recommendations .....	96
7.2	Additional Requirements for Multifamily Dwellings.....	96
7.2.1	Siting and Layout Requirements.....	97
7.2.2	Design Requirements .....	97
7.2.3	Vehicular and Pedestrian Access Requirements.....	97
7.2.4	Open Space and Buffer Area Requirements.....	97
7.2.5	Parking, Loading and Lighting Requirements.....	98
7.2.6	Water Supply and Sewerage Requirements .....	98
7.2.7	Storm Water Runoff .....	98
7.2.8	Utility Requirements .....	99
ARTICLE 8 SIGN AND BILLBOARD REGULATIONS.....		100
8.1	Purpose.....	100
8.2	Administration and Enforcement.....	100
8.2.1	Enforcement.....	100
8.2.2	Permits.....	100
8.2.3	Fees .....	101
8.3	Sign Types.....	101
8.4	Permitted Sign Uses .....	103
8.5	Prohibited Signs .....	105
8.6	Variance.....	106
8.7	Maintenance.....	106
8.8	Nonconforming Signs.....	106
ARTICLE 9. SPECIAL PROVISIONS.....		106
9.1	Earth Removal.....	106

9.2	Adult Entertainment Enterprises.....	107
9.3	Screening and Buffers.....	112
9.4	Commercial Development Performance Standards.....	114
9.5	Environmental Performance Standards.....	116
ARTICLE 10. SITE PLAN REVIEW.....		119
10.1	Purpose.....	119
10.2	Projects Requiring Site Plan Approval.....	119
10.3	Application.....	119
10.4	Required Site Plan Contents.....	120
10.5	Procedure for Site Plan Review.....	121
10.6	Site Plan Review Criteria.....	121
10.7	Final Action.....	122
10.8	Enforcement.....	123
10.9	Section 9 – Appeal.....	123
Article 11. ADMINISTRATION.....		124
11.1.	Enforcement.....	124
11.1.1	Violations.....	124
11.1.2	Legal Proceedings.....	124
11.1.3	Occupancy Permits.....	125
11.2	Zoning Board of Appeals.....	125
11.2.1	Special Permits.....	125
11.2.2	Permits for Scientific Research.....	126
11.2.3	Variances.....	126
11.2.4	Standing To Appeal to the Special Permit Granting A.....	126
11.3	Amendments to this Bylaw.....	127
11.4	Validity.....	127
11.5	RATE OF DEVELOPMENT.....	127
11.5.1	Purpose.....	127
11.5.2	General.....	127
11.5.3	Procedures.....	128
11.5.4	Exemptions.....	128
11.5.5	Time Limit and Extension.....	129
11.5.6	Separability.....	129

## **ARTICLE 1. GENERAL PROVISIONS**

### **1.1 Title and Authority**

This by-law shall be known and may be cited as the "Zoning Bylaw of the Town of Ayer, Massachusetts". It is enacted in accordance with Chapter Forty A (40A) of the General Laws of Massachusetts as amended. The Town of Ayer accepts the provisions of "The Zoning Act; Chapter 808 of the Acts of 1975, Mass. General Laws, Chapter 40A".

### **1.2 Purpose**

The purposes of the Zoning By-Law are to promote and conserve the health and general welfare of the inhabitants of the Town of Ayer, to secure safety from fire, confusion or congestion; to facilitate the adequate provision of transportation, water, sewerage, and other public services, to avoid undue concentrations of population; to guide development of housing; to encourage the most appropriate patterns of land-use and to increase the desirability of the Town as a place in which to live and work.

"The philosophy, policy, amendment, interpretation, and enforcement of the Zoning Bylaw of the Town of Ayer are based on the goals and objectives of the Ayer Comprehensive Plan Update and its amendments. In making land use decisions, the Town's Boards, Commissions, and officials shall be guided by the Plan's goals. These include:

**Economic Development.** The Town shall encourage a growing, diversified economy built on stable businesses that enhance the local tax base and provide high quality jobs. The Town will promote the economic opportunities available through the use of existing buildings, the activities at Devens, and in areas with existing infrastructure. The Town will seek to maximize the quantity and quality of retail opportunities in the downtown and other commercial districts. This may be achieved through the revision of a suitable mix of services, aesthetics, pedestrian and traffic safety, and appropriate parking standards.

**Land Use and Community Character.** The Town of Ayer seeks to balance the variety of land use activities that are appropriate to Ayer. Land uses which are not suitable to Ayer shall be disallowed. Those uses which are incompatible with one another shall be separated. The Town land use pattern shall be planned to reduce strain on municipal services, while protecting community character and local natural resources. The Town will build on Ayer's historic character and cultural identity. Land use patterns contribute to a community design and sense of place which enhance the quality of life in Ayer.

**Natural Resources and Environment.** Land use policies and decisions shall recognize the value of natural resources, open space and recreation to quality of life. Environmentally sensitive areas should be protected from development. Water quality in aquifers, ponds, and rivers shall be promoted and enhanced.

Housing. The Town shall encourage and provide a mixture of housing that meets the needs of current and future generations. This mixture shall include opportunities for rental, ownership, multifamily, various sizes, and special needs while maintaining community character. Ayer will work to maintain its existing stock of affordable housing, as well as encourage additional affordable housing development.

Devens. The Town of Ayer will coordinate its land use, environmental, and economic development policies with the initiatives and action of the Devens Reuse Plan. “

### **1.3 Scope**

No building or other structure nor any land shall be used, nor shall any building or structure be erected or altered, except in conformity with the provisions of this by-law and any amendments thereof which apply to the district in which the building, structure, or premises shall be located.

### **1.4 Severability**

The separate provisions of this Zoning By-Law and the Zoning Map shall have force and effect separately and independently, except in so far as by express reference or necessary implication any one, or any part thereof, depends upon another. The invalidity of any provision or part thereof shall not affect the validity of any other provision. Wherever this by-law imposes greater restrictions than other by-laws or existing provisions of laws regulations or permits, or any restrictions, easements, covenants, or agreements, the provisions of this by-law shall prevail.

## ARTICLE 2 . DEFINITIONS

### 2.1 Meaning of Certain Words

Words used in the present tense include the future; words in the plural number include the singular; the word "shall" is mandatory and not directory; the word "it" includes the word "plot"; the word "land" includes the words "swamps" and "water".

### 2.2 Definitions

For the purpose of this by-law certain terms and words are defined as follows:

- 1) **Abandonment:** Cessation of an activity for a period of two years or more causing the loss of any right to restore a non-conforming use or activity on a given site.
- 2) **Accessory Building:** A detached subordinate building located on the same lot with a main building or use, the use of which is customarily incidental to that of the main building or to the use of land.
- 3) **Ancillary and supporting dwelling unit:** In the Health Care Services District, this shall mean a townhouse or row-house owned by the owner of the hospital and leased solely to physicians, employees or medical staff and accompanying spouses and children.
- 4) **Accessory Use:** A use customarily incidental to that of the main building or to the use of the land, not including the exterior storage of junk, dismantled or abandoned cars or any other storage detrimental to the health, safety or general welfare.
- 5) **Adult bookstore:** "Adult bookstore" means an establishment having as a substantial or significant portion of its stock in trade, rental or sale, books magazines and/or other matter which are distinguished or characterized by their emphasis on matter depicting, describing or relating to sexual conduct or sexual excitement as defined in Massachusetts General Laws, Chapter 272, section 31(GL c272, S. 32), or which shall be deemed to include so-called sexual aids, mechanical and non-mechanical simulators and objects fashioned to resemble or perform certain of the functions of the human sexual organs and genitalia.
- 6) **Adult business:** An Adult business includes, but is not limited to, adult entertainment establishments, adult motion picture theaters, adult bookstores, and adult video stores.
- 7) **Adult entertainment establishment.** "Adult entertainment establishment" means any establishment which displays entertainment which is distinguished or characterized by its emphasis depicting, describing or relating to sexual conduct or sexual excitement as defined in GL c272 s 31.
- 8) **Adult motion picture theater.** "Adult Motion Picture Theater" means a building use for presenting material related to sexual conduct or sexual excitement as defined in GL c 272s31.
- 9) **Adult use.** "Adult use" means a use (whether partially or in its entirety) of a building or business for the purpose of engaging in the sale, display, hire trade, exhibition or viewing of materials or entertainment depicting, describing, or relating to sexual conduct or sexual excitement

as defined in G L c 272 s 31.

**10) Adult use advertisement sign:** “Adult use advertisement sign” means an advertising sign or device which advertises an adult entertainment use, adult bookstore, adult video store, or adult motion picture theater and/or advertises the trade, rental or sale of material distinguished by an emphasis on matter depicting, describing, or relating to sexual conduct or sexual excitement as defined in GL c272, s 31.

**11) Adult video store:** “Adult video store” means an establishment having as a substantial or significant portion of its stock in trade, rental or sale, videos and other matter which are distinguished or characterized by their emphasis depicting, describing or relating to sexual conduct or sexual excitement as defined in GL c 272, s 31.

Substantial or significant portion (adult entertainment). “Substantial or significant portion” means at least that portion of (i) retail sales accounting for at least twenty percent of gross sales or (ii) merchandise accounting for at least twenty percent of total merchandise available for sale or (iii) shelf-space which when combined is in excess of eighty (80) square feet.

**12) Affordable housing units:** Units which may be rented or purchased by those who meet the guidelines for maximum annual income for a low income for Ayer, and the income limit for “moderate income” shall be 120% of median income for Ayer. Median income for Ayer will be as calculated by the US Department of Housing and Urban Development, or any successor agency, and shall be adjusted for family size.

**13) Agriculture:** The production, keeping or maintenance, for sale or lease of plants and animals useful to humans, including but not limited to: forages and sod crops; grains and seed crops; dairy animals and dairy products, poultry and poultry products; livestock including beef cattle, swine, horses, mules, ponies or goats or any mutations of hybrids hereof, including the breeding and grazing of any of such animals, bees, apiary products, for animals, bees and forest products; fruits of all kinds, including grapes, nuts and berries, vegetables, floral, nursery, ornamental and greenhouse products, or lands devoted to a soil conservation or forestry management program.

**14) Alteration:** A change in or addition to a building which modifies the location, plan, manner of construction or materials used, or in any way varies the character of its use.

**15) Amusement and recreation services:** Establishments engaged in providing amusement or entertainment for a fee or admission charge and include, but are not limited to, the following activities: dance halls, studios; theatrical productions; bands, orchestras and other musical entertainment; bowling alleys and billiards and pool establishments; commercial sports such as arenas, rings, racetracks, public golf courses and coin-operated devices; amusement parks, swimming pools; carnival operations; and game parlors.

**16) Automotive service station or garage:** A building or part thereof whose chief activity is the selling of gasoline, oil and related products for motor vehicles or the provision of lubricating service or general auto repair.

**17) Bar.** An establishment servicing alcoholic beverages in which the principal business is the sale of such beverages at retail for consumption on the premises.

**18) Basement.** A portion of a building, partly below grade, which has more than one-half (1/2) of

its height, measured from the finished floor to finished ceiling, above the average finished grade of the ground adjoining the building. A basement is not considered a story unless the ceiling is six (6) feet or more above the finished grade.

**19) Bed and Breakfast Use/Tourist Home:** An owner-occupied single-family dwelling which may rent up to a maximum of three (3) rooming units for transient occupancy (without individual kitchen facilities and with an individual or shared bath/toilet facility, with at least one toilet, one bath/shower and one wash basin, separate from those required for the single family dwelling) and where a breakfast is included in the rent and all accommodations are reserved in advance. The use of that portion of the dwelling devoted to transient occupancy shall be secondary to the use of the dwelling as a single-family residence and shall not change the character thereof.

**20) Building:** (see structure) A structure enclosed within exterior walls or firewalls, built, erected and framed of a combination of any materials, whether portable or fixed, having a roof, to form a structure for the shelter of persons, animals or property. For the purpose of this definition, "roof" shall include an awning or any similar covering, whether or not permanent in nature. The word "building" shall be construed where the context requires as though followed by the words "or part or parts thereof".

**21) Building Coverage:** The building area expressed a percent of the total lot area.

**22) Building Line:** The line established by law beyond which a building shall not extend.

**23) Business repair service establishment:** Any building wherein primary occupation is the repair and general servicing of appliances, tools, and other small machinery common to use in homes or businesses, but not including automotive repair or automobile service stations; or any place wherein the primary occupation is interior decorating, to include reupholstering and the making of draperies, slipcovers, and other similar articles, but not to include furniture or cabinet making establishments.

**24) Campground:** An area or tract of land on which accommodations for temporary occupancy are located or may be placed, including cabins, tents and recreational vehicles, and which is primarily used for recreational purposes.

**25) Cellar:** A portion of a building, partly or entirely below grade, which has more than one-half (1/2) of its height measured from finished floor to finished ceiling, below the average established finished grade of the ground adjoining the building. A cellar is not deemed a story.

**26) Childcare facility:** Facilities that serve children under seven (7) years of age (or sixteen {16} years of age if children have special needs) at any time, and service children under fourteen (14) years of age in programs that are held before or after school hours or during vacations.

**27) Cluster Development:** A land development option which permits an applicant to build single-family, two-family and multifamily dwellings on lots with reduced area and frontage requirements so as to create a development in which the buildings and accessory uses are clustered together into one or more groups with adjacent common open land.

**28) Common driveway:** A driveway serving up to three (3) detached dwelling buildings.

**29) Community facilities:** Premises owned and operated by a governmental or chartered nonprofit organization including but not limited to municipal administrative offices, public safety facilities, public works facilities, but not including fraternal, sports, or similar membership

organizations.

**30) Corner Lot:** A lot at the intersection of and abutting on two or more streets where the angle of intersection is not more than 135 degrees or where the intersection is bounded by a curve having a radius of less than 100 feet.

**31) Country Club:** A land area and buildings containing recreational facilities, clubhouse, and usual accessory uses, open only to members and their guests for a membership fee.

**32) Discount Club:** A store with a wide variety of merchandise for sale at less-than-retail cost, open to members for an annual fee or which places other restrictions upon patrons or membership.

**33) Discount store:** A store with a wide variety of merchandise for sale at less-than-retail cost, generally open to the public.

**34) Drive in restaurant:** See Restaurant, Drive-in.

**35) Drive-in/Drive-through:** A place of business operated for retail purposes where the patron customarily drives a motor vehicle onto the site and to a window or mechanical drive-through by which the patron is served without exiting the vehicle. Prior to service, the engine of the motor vehicle customarily remains in operation (drive-through) or engine is stopped (drive-in).

**36) Dwelling:** A building designed for human habitation and containing one or more dwelling units.

**37) Dwelling Unit.** A building or portion of a building designed to be occupied separately by one or more persons forming a household and having its own cooking and toilet facilities, and a distinct separate entrance from the outside or from a common hallway or stairway.

**38) Essential Services:** Services provided by public utility, governmental agencies, or other entity providing equivalent services through erection, construction, alteration or maintenance of underground or overhead gas, electrical, steam or water transmission or distribution systems and collection, communication, supply or disposal systems. Facilities necessary for the provision of essential services include poles, wires, fiber optic strands, mains, drains, sewers, pipes, conduits, cables, fire alarm boxes, traffic signals, hydrants, and other similar equipment and accessories in connection therewith. Specifically excluded from this definition are buildings necessary for the furnishing of adequate service by such public utility or governmental agencies for the public health, safety or general welfare.

**39) Family:** A number of individuals related by blood, marriage, domestic partnership and/or adoption or a group of unrelated individuals not to exceed four (4) who are occupying a dwelling unit and living as a single nonprofit housekeeping unit.

**40) Family home day care:** Any private residence which on a regular basis, received for temporary custody and care during part or all of the day, children under seven years of age or children under sixteen years of age if such children have special needs; provided, however, in either case, that the total number of children shall not exceed six, including participating children living in the residence. Family home day care shall not mean a private residence used for an informal cooperative arrangement among neighbors or relatives, or the occasional care of children with or without compensation therefore.

- 41) **Farm:** A piece of land devoted to raising of crops, livestock, or animal products, such crops, livestock, or products, or portion thereof to be offered for sale.
- 42) **Filling Station:** An establishment which sells or dispenses fuel and motor oil for motor vehicles, but which does not undertake to perform repairs at that location for customers.
- 43) **Flexible frontage lot:** Lot(s) with less frontage than required by the zoning bylaw as permitted by Article 7, Section 7.1.4 on page 81.
- 44) **Floor area:** The gross horizontal area of the several floors of the building excluding areas used for accessory garage purposes and basement areas. All horizontal dimensions shall be taken from the exterior faces of walls, including walls or other enclosures.
- 45) **Floor area gross:** The sum of the gross horizontal area of the several floors including basements of a principal building. It does not include cellars; unenclosed porches or attics not used for human occupancy. Any area in a mall space shall be counted as floor space.
- 46) **Floor area ratio:** The ratio of the gross floor area to the total lot area.
- 47) **Floriculture:** The cultivation of ornamental flowering plants.
- 48) **Forestry, commercial:** Establishments conducted as a business and primarily engaged in the operation of timber tracts, tree farms, forest nurseries, the gathering of forest products, or in performing forest services.
- 49) **Frontage:** The distance between side lot lines measured along the street or way line.
- 50) **Funeral home, mortuary:** An establishment used for the preparation of the deceased for burial and the display of the deceased and ceremonies connected therein before burial or cremation.
- 51) **Greenhouse or nursery:** Premises used for the gainful purpose of propagation of trees, shrubs, vines, flowers, or other plants for transplanting, stock for grafting, or for cut flowers.
- 52) **Height.** The vertical dimension measured from the average elevation of the finished lot grade at the front of the building to the highest point of the ceiling of the top story in the case of a flat roof; to the deck of a mansard roof; and to the average height between plate and ridge of a gable, hip or gambrel roof.
- 53) **Home Occupation:** An occupation commonly conducted in the place of residence or in a building accessory thereto, employing no more than the occupant and two (2) non-resident support staff.
- 54) **Home Business Office:** A home office use secondary to a residential use, invisible to the district, for a business primarily conducted off premises or via internet.
- 55) **Homes association:** A corporation or trust owned or to be owned by the owners of lots or residential units within a tract approved for cluster development, which holds the title to open land and which is responsible for the costs and maintenance of said open land and any other facilities to be held in common.
- 56) **Horticulture:** The cultivation of a garden or orchard.

- 57) Hotel:** A building or any part of a building containing rooming units without individual cooking facilities for transient occupancy; dining rooms, function rooms and other support services may in included. Access to the individual sleeping rooms is usually through a lobby and interior corridors. Includes an inn, but does not include a motel, motor inn and tourist court, boardinghouse, or rooming house.
- 58) House Trailer or Travel Trailer:** A vehicle having wheels but no motive power, designed for ready transport along the highway by automobiles or light trucks, constructed for human habitation, and having self-contained toilet and washing facilities not dependent on external connections.
- 59) House Trailer, Travel Trailer, or Mobile Home Park:** Any premises routinely used for parking more than two occupied house trailers, travel trailers, or mobile homes.
- 60) Lot:** A parcel of land occupied or capable of being legally occupied by one building and the accessory buildings or uses customarily incidental to it. "At least 9,000 square feet of every such parcel laid out for residential use shall be land exclusive of any "wetland" as defined in Massachusetts General Laws Chapter 131, Section 40."
- 61) Lot Line:** The established division line between lots or between a lot and a street.
- 62) Lot Depth:** The lot depth shall be measured perpendicular to and at every point in the frontage required.
- 63) Lot Line, Front:** All dividing lines between a street and the lot shall be considered front lines.
- 64) Lot Line, Rear.** The line or lines bounding a lot at the rear and approximately parallel to the front lot line.
- 65) Lot Line, Side.** The line or lines bounding a lot which extend from the street toward the rear approximately perpendicular to the street. In the case of corner lots, or through lots, all lines extending from streets shall be considered side lot lines.
- 66) Lot, Minimum Width of:** The distance between the side lot lines measured line at right angles to the mean direction of such side lot lines, which line of measurement shall touch, but not be in front of, the building line. In the case of a corner lot, for the purpose of the measurement only, the front lot line which has the least dimension shall be considered the front lot line and the lot lines adjacent thereto shall be considered as side lot lines.
- 67) Manufacturing:** A facility primarily for heavy or light industry and the, manufacture or assembly of a product including processing, blending, fabrication, assembly, treatment and packaging. Incidental activities such as storage, offices, wholesale sales, retail sales and employee-only recreation and eating facilities are permitted.
- 68) Means of Entrance and Egress:** Driveway openings or curb cuts which provide a means of access and exit for motor vehicles into the gasoline service and/or filling station or any lot.
- 69) Medical/dental center or clinic:** A building or group of buildings used for the offices and facilities accessory to the practice of licensed medical practitioners, (including physicians, dentists, optometrists, ophthalmologists, and persons engaged in all fields related generally to medicine, but not including veterinarians) and including such common facilities as an outpatient clinic or

emergency treatment rooms, but not including inpatient facilities.

**70) Membership club, private, social club:** A social, sports or fraternal association or organization which is used exclusively by members and their guests and which may contain bar facilities.

**71) Motel:** A building or any part of a building containing rooming units without individual cooking facilities for transient occupancy each of which maintains a separate outside entrance including a motel, motor inn or tourist court, but not including a boardinghouse, lodging house or rooming house.

**72) Multi-Family Dwelling:** A dwelling containing 3 or more dwelling units.

**73) Nonconforming building or structure:** A building or structure, lawfully existing at the effective date of this bylaw, or any subsequent amendment to, which is not in accordance with one or more provisions of this bylaw.

**74) Nonconforming lot:** A lot lawfully existing at the effective date of this bylaw, or any subsequent amendment to, which is in accordance with one or more provisions of this bylaw.

**75) Non-Conforming Use:** Use of a building or land which does not conform to the regulations of the district in which it is located, whether or not it was lawful at the time of the passing of this by-law.

**76) Nursing, rest or convalescent home:** An extended or intermediate care facility licensed or approved to provide full-time convalescent or chronic care to individuals who, by reason of advanced age, chronic illness or infirmity, are unable to care for themselves.

**77) Off-Premises Sign:** A sign advertising goods or services available elsewhere but not at the premises of the advertiser.

**78) On-Premises Sign:** A sign announcing or advertising goods or services available on the premises of the sign and identifying the firm located there.

**79) Open space:** The space on a lot unoccupied by buildings or structures, and not devoted to streets, driveways, off-street parking or loading spaces and expressed as a percentage of the total lot area. Open space shall be unobstructed to the sky by man-made objects. Walks, swimming pools and terraced areas may be part of a lot's open space. Open space within a cluster development is prohibited from development.

**80) Parking space:** An off-street space having an area of not less than two hundred (200) square feet plus access and maneuvering space, whether inside or outside a structure for exclusive use as a parking stall for one motor vehicle.

**81) Personal and consumer service establishment:** Any building wherein the primary occupation is the repair, care of, maintenance or customizing of personal properties that are worn or carried about the person or are a physical component of the person. Personal service establishments shall include, but not be limited to: barber shops, beauty shops, pet grooming establishments; laundering, cleaning and other garment servicing establishments; tailors, dressmaking shops, shoe cleaning or repair shops; health clubs; and other similar places of business, but not including offices of physicians, dentists, and veterinarians, or any other recognized professional.

- 82) Poultry Farm:** A farm with a flock of more than fifty (50) birds.
- 83) Professional services, offices:** Establishments primarily engaged in rendering services by professional persons on a fee or contract basis, including, but not limited to the following: accounting, auditing and bookkeeping; medical, dental or health; planning, engineering and architectural; education and science; attorneys and notaries public; etc.
- 84) Research office or establishment:** A facility primarily for scientific or product research, investigation, testing, or experimentation, along with incidental offices, incidental storage, incidental manufacture and sale of products, and incidental employee-only facilities.
- 85) Restaurant:** An establishment where food and drink is prepared, served and consumed primarily within the principal building.
- 86) Restaurant, drive-in/drive through:** A building or portion thereof where food and/or beverages are sold in a form ready for consumption and are usually served to or consumed by patrons who are outside the confines of the building, often in a motor vehicle.
- 87) Semi-detached house:** A residential structure attached to- but separated from, one comparable unit by a party wall, and having separate entrance and space for front and rear yards. A pair of semi-detached houses forms a duplex.
- 88) Service station:** establishment which sells both motor vehicle fuel and motor oil and performs on-site repairs and other motorist services.
- 89) Setback:** The minimum horizontal distance between the street or way line and the line of the building.
- 90) Sign:** Any permanent or temporary structure, device, letter, word, model, banner, pennant, insignia, trade flag, or representation used as, or which is in the nature of an advertisement, announcement, or direction, or is designed to attract the eye by intermittent or repeated motion or illumination. Sign types are defined below:

**Address sign**– one sign displaying the street number or name of the occupant of the premises, or both.

**Awning sign** – a sign painted on or attached to a movable metallic frame, or the hinged roll or folding type, which may have a covering either combustible or incombustible.

**Banner** – any temporary sign of lightweight fabric or similar material that is mounted to a pole or building at one or more edges.

**Billboard**– an off-premises sign controlled by the Outdoor Advertising Board, which is used for the display of printed or painted advertising matter.

**Building sign**–any sign attached to any part of a building, as contrasting to a freestanding sign.

**Business sign** – a sign used to direct attention to a service, product sold, or other activity performed on the same premises upon which the sign is located.

**Canopy sign** – any sign that is a part of or attached to an awning, canopy, or other fabric, plastic, or structural protective cover over a door, entrance, window, or outdoor service area. A marquee is not a canopy.

**Commercial message**– any sign wording, logo, or other representation that, directly or indirectly, names, advertises, or calls attention to a business, product, service, or other commercial activity.

**Construction sign**– a temporary sign of an architect, engineer, or contractor, erected during the period such person is performing work on the premises on which such sign is erected.

**Development sign**– a sign used to direct attention to a site which included a lot or lots considered as a unit for development purposes where the lot or lots is occupied by more than one use whether in the same structure or not.

**Directional sign** – an off-premises sign which indicates the direction or distance to a geographic area, but does not identify or advertise any particular commercial or noncommercial enterprise or group of commercial or noncommercial enterprises.

**For sale, rent or lease sign**– a temporary sign advertising real property for sale, rent or lease.

**Free-standing sign**– a sign supported by structure or supports that are placed on, or anchored in, the ground and that are independent from any building or other structure. Free-standing signs do not include movable or trailer type signs.

**Incidental sign**–a sign, generally informational, that has a purpose secondary to the use of the zone lot on which it is located, such as “no parking”, “entrance”, “loading only”, “telephone”, and other similar directives. No sign with a commercial message legible from a position off the lot on which the sign is located shall be considered incidental.

**Identification sign**– a sign used simply to identify the name, address, and title of an individual family or firm occupying the premises on which the sign is located.

**Illuminated sign**– a sign that is artificially illuminated by means of electricity, gas, oil, or fluorescent paint.

**Marquee**–any permanent, roof-like structure projecting beyond a building or extending along and projecting beyond the wall of the building, generally designed and constructed to provide protection from the weather.

**Marquee sign**– any sign attached to, in any manner, or made part of a marquee.

**Movable sign**—any sign not permanently attached to the ground or other permanent structure, or a sign designed to be transported, including but not limited to, signs designed to be transported by means of wheels; signs converted to A- or T-frames; menu and sandwich board signs; and signs attached to or on vehicles parked and visible from the public right-of-way, unless said vehicle is used in the normal day-to-day operations of the business.

**Nonconforming sign**— any sign that does not conform to the requirements of this bylaw.

**Off-premise sign**— any sign that advertises or indicates someone other than the person occupying the premises on which the sign is erected or maintained, or some business or businesses other than that transacted thereon, or advertises another property or any part thereof as for sale or rent.

**On-premise sign**—any sign that advertises or indicates the occupant of the premises on which the sign is erected or maintained.

**Political sign**—a noncommercial sign erected to show support for a candidate for public office or to express a political opinion.

**Projecting sign**—any sign affixed to a building or wall at a 90 degrees angle from the face and affixed to a building or structure in such a manner that its leading edge extends twelve (12) inches beyond the building wall, structure or parts thereof.

**Roof sign**—a sign which is located above, or projected above, the lowest point of the eaves or the top of the parapet wall of any building, or which painted on or fastened to a roof.

**Special event sign**—a temporary sign used in connection with a circumstance, situation, or event (i.e. church bazaar, grand opening, fair, circus, festival, performance, or competition) that is expected to be complete within a reasonably short or definite period.

**Temporary sign**—any sign that is not permanently mounted, including its support structure, and is intended to be used for a periods of no more than thirty (30) days.

**Wall sign**—any sign attached parallel to, but within six inches of, a wall, painted on the wall surface of, or erected and confined within the limits of an outside wall of any building or structure, which is supported by such wall or building, and which displays only one sign surface.

**91) Sign surface area of:**

(1) For a sign, either freestanding or attached, the area shall be considered to include all lettering, wording, and accompanying designs and symbols, together with the background, whether open or closed, on which they are displayed, but not including any supporting framework and bracing which are incidental to the display.

(2) For a sign consisting of individual letters, designs and symbols attached to or paint on a surface, building, wall or window, the area shall be considered to be that of the smallest quadrangle which encompasses all of the letters, and designs and symbols.

- 92) Special permit:** A process which allows the town to conduct a more detailed review of certain uses and structures which may have a significant impact on their surroundings and ensures proposals are consistent with the purposes of the zoning bylaw, as specified in Article 1, Section 1.2 on page 5 of this bylaw. Such special permit shall be issued in accordance with the provisions of Article 11, Section 11.2.1 on page 125 of this the Bylaw.
- 93) Special permit granting authority:** the special permit granting authority for the town of Ayer, Massachusetts shall be the Board of Appeals, Board of Health or Planning Board as provided in Article 11, Section 11.2 on page 125 of this bylaw.
- 94) Story:** That part of a building between any floor or roof next above. For the purpose of this bylaw, where a building is not divided into stories, a story shall be considered fifteen feet in height. Steeples, penthouses, cupolas, state lofts, etc. shall not be considered as additional stories. A basement or cellar, the ceiling of which extends more than four feet six inches above the average finished grade, shall be a story within the meaning of this bylaw.
- 95) Structure:** anything constructed or erected which requires location on the ground, including sign and billboards over 12 square feet in area.
- 96) Substantial improvement:** Improvement to a structure which exceeds 25% of the original footprints, floor area, or volume of such structure or building, or the cost of which exceeds twenty (25%) of the assessed value of the original structure.
- 97) Supermarket:** a retail establishment primarily selling food as well as other convenience and household goods.
- 98) Townhouse, row house or attached house:** A residential structure attached to, but separated from, one or more comparable structures by party walls and having separate entrances and space for front and rear yards.
- 99) Two-family dwelling:** a detached building containing two (2) dwelling units.
- 100) Use, ancillary and supporting:** An accompanying use that will provide for and support the principal uses related to the medical mission of the Health Care Services District. (not in certified copy)
- 101) Use, nonconforming:** a use lawfully existing at the time of adoption of the bylaw or any subsequent amendment thereto which does not conform to one or more provisions of this bylaw.
- 102) Use, substantially different:** a use which by reason of its normal operation would cause readily observable differences in patronage, service, sight, noise, employment or similar characteristics from the use to which it is being compared.
- 103) Warehousing:** terminal facilities for handling freight with or without maintenance facilities.
- 104) Wetlands:** area characterized by vegetation described in General Laws, Chapter 131, Section 40.

- 105) Wholesaling and distribution:** establishment or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, or professional business users, or to other wholesalers, or acting as agents or brokers and buying merchandise for, or selling merchandise to, such individuals.
- 106) Yard:** an unoccupied space, open to the sky, on the same lot with the building or structure.
- 107) Yard, front:** a yard extending across the full width of the lot and lying between the front line of the lot and the nearest line of the principal building.
- 108) Yard, rear:** a yard extending across the full width of the lot and lying between the rear lot line of the lot and the nearest line of the principal building.
- 109) Yard, side:** a yard extending between the side lot line of the lot and the nearest line of the principal building and then extending from the front yard to the rear yard, or in the absence of either of such yards, to the front or rear lot lines.
- 110) Zero lot line:** Dwellings on separate lots with no side yard on the side of the dwelling unit that shares a party wall or double wall with the adjacent dwelling unit.
- 111) Zoning Administrator:** a person appointed by the Zoning Board of Appeals to whom the Board of Appeals may delegate some powers and duties including clerical and technical duties.
- 112) Zoning Enforcement Officer:** The Zoning Enforcement Officer in Article 11, Section 11.1 on page 124 of this zoning by-law.

## ARTICLE 3 ZONING DISTRICTS

### 3.1 *Establishment of Districts*

The Town of Ayer is hereby divided into eight (8) types of districts. The Town of Ayer also has three (3) overlay districts.

- a. Residential Districts
  - 1) A-1, Residence A-1
  - 2) A-2, Residence A-2
  - 3) GR, General Residence
- b. Commercial Districts
  - 1) DB, Downtown Business
  - 2) GB, General Business
- c. Industrial Districts
  - 1) L.I. Light Industrial
  - 2) H.I. Heavy Industrial
- d. HCS, Health Care Services District
- e. Overlay Districts
  - 1) WCS, Wireless Communication Services District
  - 2) FPD, Flood Plain District
  - 3) APD, Aquifer Protection District

### 3.2. **Boundaries of Districts Defined.**

The boundaries of each of the said districts are hereby established as shown, defined and bounded on the map accompanying this by-law and on file with the Clerk of the Town of Ayer, Massachusetts, entitled "Town of Ayer, Massachusetts Zoning District Map, September 1986." All explanatory matter thereon is hereby made a part of this by-law.

- a. District Boundary Lines on Ways. Where the boundary lines are shown upon said map within the street lines of public and private ways, railroads or utility lines, the center lines of such ways, railroads or utility lines shall be the boundary lines.
- b. District Boundary Lines on Lot Lines. Where the district boundary lines are shown approximately on property or lot lines, and their exact location is not indicated by dimensions the property or lot lines shall be the zoning district boundary lines.
- c. District Boundary Lines Outside of Ways. Boundary lines located outside of public and

private ways, railroads or utility lines and shown approximately parallel thereto shall be regarded as parallel to such lines, and intervening dimensions shown are the distances in feet from such street, railroad or utility lines, such distances being measured at right angles to such lines unless otherwise indicated.

- d. District Boundary Lines Following Natural Features. Where the district boundary line follows a body of water, said boundary line shall be construed to be at the thread of the channel of the stream unless otherwise indicated.
- e. District Boundary Lines Dividing a Lot. Where a district boundary line divides any lot existing at the time such line is adopted, the regulations for the less restricted portions of such lot shall extend no more than fifty (50) feet into the more restricted portion of such lot, provided the lot has street frontage in the less restricted district.
- f. District Boundary Lines Determined by Identifications on the Maps. In all cases, which are not covered by other provisions of this Article the location of boundary lines shall be determined by the distance from other lines upon said maps, if given, by the use of identifications shown on the maps, or by the scale of the maps.
- g. Determination of Uncertain Boundary Lines. Whenever any uncertainty exists as to the exact location of a boundary line, the location of such line shall be determined by the Enforcing Officer, provided that any aggrieved person may appeal to the Zoning Board of Appeals.
- h. All areas in each zoning district, including streets or other public lands, are subject to the regulations for that district.

### 3.3 District Regulations

#### 3.3.1 Residential Districts

##### 3.3.1.1 Residence A-1

###### a. General Purpose and Description

The A-1 Low Density Residential District is intended to allow residential development at slightly over one unit/acre, in outlying areas and in areas with severe septic system limitations, steep slopes or other major development limitations, and/or with limited public facilities, particularly sewer and water service. Such zoning can allow development which is suitable to the capacity of the land without requiring extensive or premature public investment. However, the relatively large lot requirements consume much land for a given amount of new housing created.

###### b. Definitions Referenced

The definitions of certain terms referenced in this section are set forth in Article 2, "Definitions" on page 7 of this bylaw.

###### c. Use Regulations

###### Permitted Uses

- 1) Detached single family dwellings
- 2) Accommodation of up to four roomers/boarders not members of the resident family
- 3) Uses accessory to as of right uses
- 4) Buildings for public/semi-public educational uses
- 5) Buildings for religious uses
- 6) Public Safety Facility
- 7) Extensions of existing cemeteries
- 8) New cemetery
- 9) Apartments over office/commercial space
- 10) Farming, horticulture, forestry, nurseries, greenhouses, and sale of on premise raised produce
- 11) Domesticated animal keeping for resident's use with related structures at least 20 feet from rear and side lot lines
- 12) Signs

###### Uses Allowed by Special Permit from Zoning Board

- 1) Conversion of Single family dwelling to two family dwelling
- 2) Tourist homes and bed and breakfast establishments
- 3) Home occupations
- 4) Uses accessory to uses allowed by special permit
- 5) Buildings for governmental uses
- 6) Medical Institutions
- 7) Public utility buildings without service yards
- 8) Golf course, ski, camping or swimming facilities with incidental sales for patrons

9) Hotels, motels, inns

Uses Allowed by Special Permit by the Board of Selectmen

- 1) Commercial removal of sod, stone, loam or other earth products for use elsewhere in the town

Prohibited Uses

Any use not specifically listed above as permitted or allowed by special permit shall be prohibited. Refer to Article 4, Section 4.4 Table of Use Regulations on page 65 for detailed listing.

**d. Density and Dimensional Regulations** - For complete detailed information on regulations refer to Article 5, Dimensional Regulations on page 69.

1) Minimum Lot Area:

- a. Single Family: 40,000 square feet

2) Minimum Frontage: 150 Feet

3) Minimum Yard Setbacks:

- a. Front: 35 Feet
- b. Side: 15 feet
- c. Rear: 30 feet

4) Building and Use Intensity

- a. Maximum Height 35 feet
- b. Maximum Number of Stories 2.5 stories
- c. Maximum Floor Area Ratio N/A
- d. Maximum Building Coverage 15%
- e. Minimum Open Space % Lot Area 80%

**e. Residence A-1 District Provisions**

1) Off-Street Parking

For all zoning districts, off-street parking spaces shall be provided for every new structure, the enlargement of an existing structure, and new or expanded uses, in accordance with the TABLE OF OFF-STREET PARKING REGULATIONS and other requirements contained in Article 6. Off-Street Parking on page 73.

2) Environmental Performance Standards

Any use permitted by right or special permit in any district shall not be conducted in a manner as to emit any dangerous, noxious, injurious, or otherwise objectionable fire, explosion, radio active or other hazard; noise or vibration, smoke, dust, odor or other form of environmental pollution; electrical or electro-magnetic, or other disturbance; glare; liquid or solid

refuse or wastes; conditions conducive to the breeding of insects, rodents, or other substance; conditions or element in any amount as to affect adversely the surrounding environment. Refer to Article 9 Special Provisions Section 9.5 on page 116.

### 3.3.1.2 Residence A-2

#### a. General Purpose and Description

The A-2 Medium Density Residential District is intended to allow a greater variety of housing and supporting public and semi-public facilities on relatively generous lots in the more central and accessible portions of the community, particularly in areas with public water and sewer service.

#### b. Definitions Referenced

The definitions of certain terms referenced in this section are set forth in Article 2, "Definitions" on page 7 of this bylaw.

#### c. Use Regulations

##### Permitted Uses

- 1) Detached single family dwellings
- 2) Accommodation of up to four roomers/boarders not members of the resident family
- 3) Conversion of a single family dwelling to a two family dwelling
- 4) Uses accessory to as of right uses
- 5) Buildings for public/semi-public educational uses
- 6) Buildings for religious uses
- 7) Public Safety Facility
- 8) Extensions of existing cemeteries
- 9) New cemetery
- 10) Apartments over office/commercial space
- 11) Farming, horticulture, forestry, nurseries, greenhouses, and sale of on premises raise produce
- 12) Domesticated animal keeping for resident's use with related structures at least 20 feet from rear and side lot lines
- 13) Signs
- 14) Boarding of animals for profit

##### Uses Allowed by Special Permit from Zoning Board

- 1) Home Occupations
- 2) Tourist homes and bed and breakfast establishments
- 3) Uses accessory to uses allowed by special permit
- 4) Buildings for governmental uses
- 5) Medical Institutions
- 6) Public Utility buildings without service yards
- 7) Rest homes or nursing homes
- 8) Golf courses, ski, camping or swimming facilities with incidental sales for patrons
- 9) Hotels, Motels, Inns

##### Uses Allowed by Special Permit by the Board of Selectmen

- 1) Commercial removal of sod, stone, loam or other earth products for use elsewhere within the town

Prohibited Uses

Any use not specifically listed above as permitted or allowed by special permit shall be prohibited. Refer to Article 4, Section 4.4 Table of Use Regulations on page 65 for detailed listing.

**d. Density and Dimensional Regulations** - For complete detailed information on regulations refer to Article 5, Dimensional Regulations on page 69.

1) Minimum Lot Area:

- a. Single Family: 12,000 square feet
- b. Conversion of 1 to 2 family 24,000 square feet

2) Minimum Frontage: 100 Feet

3) Minimum Yard Setbacks:

- a. Front: 20 Feet
- b. Side: 15 feet
- c. Rear: 25 feet

1) Building and Use Intensity

- a. Maximum Height 35 feet
- b. Maximum Number of Stories 2.5 stories
- c. Maximum Floor Area Ratio N/A
- d. Maximum Building Coverage 25%
- e. Minimum Open Space % Lot Area 60%

**e. Residence A-2 District Provisions**

1) Off-Street Parking

For all zoning districts, off-street parking spaces shall be provided for every new structure, the enlargement of an existing structure, and new or expanded uses, in accordance with the TABLE OF OFF-STREET PARKING REGULATIONS and other requirements contained in Article 6. Off-Street Parking on page 73.

2) Environmental Performance Standards

Any use permitted by right or special permit in any district shall not be conducted in a manner as to emit any dangerous, noxious, injurious, or otherwise objectionable fire, explosion, radio active or other hazard; noise or vibration, smoke, dust, odor or other form of environmental pollution; electrical or electro-magnetic, or other disturbance; glare; liquid or solid refuse or wastes; conditions conducive to the breeding of insects, rodents, or other substance; conditions or element in any amount as to affect adversely the surrounding environment. Refer to Article 9 Special Provisions Section

9.5 on page 116.

### 3.3.1.3 General Residence (GR)

#### a. General Purpose and Description

The G.R. General Residential District is intended to allow and regulate higher density housing and public facilities in centrally-located or very accessible and well-served areas of the town. It includes multi-unit and townhouse development by special permit at higher densities of about 12 units/acre.

#### b. Definitions Referenced

The definitions of certain terms referenced in this section are set forth in Article 2, "Definitions" on page 7 of this bylaw.

#### c. Use Regulations

##### Permitted Uses

- 1) Detached single-family dwellings
- 2) Accommodation of up to four roomers/boarders not members of the resident family
- 3) Conversion of a single family dwelling to a two family dwelling
- 4) Tourist homes and bed and breakfast establishment
- 5) New two family dwellings
- 6) Multi-family dwellings, townhouses
- 7) Uses accessory to as of right uses
- 8) Buildings for public/semi-public educational uses
- 9) Buildings for religious uses
- 10) Public Safety Facility
- 11) Extension of existing cemeteries
- 12) New cemetery
- 13) Apartments over office/commercial space
- 14) Farming, horticulture, forestry, nurseries, greenhouses, and sale of on premised raise produce
- 15) Domesticated animal keeping for resident's use with related structures at least 20 feet from rear and side lot lines
- 16) Signs

##### Uses Allowed by Special Permit from Zoning Board

- 1) Home Occupations
- 2) Uses accessory to uses allowed by special permit
- 3) Buildings for governmental uses
- 4) Medical Institutions
- 5) Rest homes or nursing homes
- 6) Golf courses, ski, camping or swimming facilities with incidental sales for patrons
- 7) Hotels, Motels, Inns

##### Uses Allowed by Special Permit by the Board of Selectmen

- 1) Commercial removal of sod, stone, loam or other earth products for use elsewhere within the town

Prohibited Uses

Any use not specifically listed above as permitted or allowed by special permit shall be prohibited. Refer to Article 4, Section 4.4 Table of Use Regulations on page 65 for detailed listing.

**d. Density and Dimensional Regulations** (For complete detailed information on regulations refer to Article 5, Dimensional Regulations on page 69)

- 1) Minimum Lot Area:
  - a. Single Family: 10,000 square feet
  - b. Conversion of 1 to 2 family 13,000 square feet
  - c. Multi-family  
Refer to Article 7,  
Section 7.2  
Special Development  
Regulations on page  
96.
  
- 2) Minimum Frontage: 100 Feet
  
- 3) Minimum Yard Setbacks:
  - a. Front: 20 Feet
  - b. Side: 10 feet
  - c. Rear: 25 feet
  
- 4) Building and Use Intensity
  - a. Maximum Height 35 feet
  - b. Maximum Number of Stories 2.5 stories
  - c. Maximum Floor Area Ratio N/A
  - d. Maximum Building Coverage 30%
  - e. Minimum Open Space % Lot Area 50%

**e. General Residence(GR) District Provisions**

**1) Off-Street Parking**

For all zoning districts, off-street parking spaces shall be provided for every new structure, the enlargement of an existing structure, and new or expanded uses, in accordance with the TABLE OF OFF-STREET PARKING REGULATIONS and other requirements contained in Article 6. Off-Street Parking on page 73.

**2) Environmental Performance Standards**

Any use permitted by right or special permit in any district shall not be conducted in a manner as to emit any dangerous, noxious, injurious, or otherwise objectionable fire, explosion, radio active or other hazard; noise or vibration, smoke, dust, odor or other form of environmental pollution; electrical or electro-magnetic, or other disturbance; glare; liquid or solid refuse or wastes; conditions conducive to the breeding of insects, rodents, or other substance; conditions or element in any amount as to affect adversely the surrounding environment. Refer to Article 9 Special Provisions Section 9.5 on page 116.

### 3.3.2 Commercial Districts

#### 3.3.2.1 Downtown Business (DB)

##### a. General Purpose and Description

The D.B. Downtown Business District is intended to accommodate a wide variety of retail, service, commercial and public uses.

The Downtown Business District (DBD) is established to provide a comprehensive set of development methods to be applied in Ayer's downtown area to distinguish its unique qualities from other business areas within the town. These methods are established for the continuance and enhancement of the historic downtown area as the functional and symbolic center of Ayer. The Downtown Business District shall be a separate business district that incorporates the areas in town which are part of Ayer Center as delineated on the Ayer Zoning Map. The Downtown Business District is established to achieve the following objectives for the town:

- to generate pride and confidence in the downtown area;
- to create an attractive environment which is active throughout the day and evening;
- to maintain a consistently high level of design quality;
- to encourage pedestrian activity by creating a positive pedestrian experience;
- to protect property values through quality control;
- to provide incentives for new and existing businesses in the downtown area.

##### b. Definitions Referenced

The definitions of certain terms referenced in this section are set forth in Article 2, "Definitions" on page 7 of this bylaw.

##### c. Use Regulations

###### Permitted Uses

- 1) Accommodation of up to four roomers/boarders not members of the resident family
- 2) Conversion of a single family dwelling to a two family dwelling
- 3) Tourist homes and Bed and Breakfast establishments
- 4) Use accessory to as of right uses
- 5) Buildings for public/semi-public educational uses
- 6) Buildings for religious uses
- 7) Buildings for governmental uses
- 8) Public Safety Facility
- 9) Medical Institutions
- 10) Public Utility without service yards
- 11) Apartments over office/commercial space
- 12) Private Clubs, lodges or other social, recreation or civic group-assembly activity not conducted as a business
- 13) Farming, horticulture, forestry, nurseries, greenhouses, and sale of on

- premise raised produce
- 14) Hotels, Motels, Inns
  - 15) Retail stores, showrooms, bakeries
  - 16) Retail consumer service establishments such as but not limited to barber shops, appliance repair shops, dry cleaners
  - 17) Restaurants, cafes, taverns and other food and beverage establishments
  - 18) Workshops for custom or on-premise sales goods
  - 19) Offices, office buildings
  - 20) Banks and other financial institutions
  - 21) Theaters, clubs, and other places of indoor commercial amusements and assembly
  - 22) Commercial or public parking areas
  - 23) Uses accessory to permitted uses
  - 24) Signs

#### Uses Allowed by Special Permit from Zoning Board

- 1) Detached single family dwellings
- 2) Home Occupations
- 3) New Two family dwellings
- 4) Extensions of existing cemeteries
- 5) New cemetery
- 6) Rest homes or nursing homes
- 7) Funeral homes and mortuaries
- 8) Auto sales and service establishments, public garages and filing stations
- 9) Drive-in/Drive Through Accessory Uses
- 10) Golf Courses, ski, camping or swimming facilities with incidental sales for patrons
- 11) Research, experimental and testing laboratories and related light manufacturing

#### Uses Allowed by Special Permit by the Board of Selectmen

- 1) Commercial removal of sod, stone, loam or other earth products for use elsewhere in the town

#### Prohibited Uses

Any use not specifically listed above as permitted or allowed by special permit shall be prohibited. Refer to Article 4, Section 4.4 Table of Use Regulations on page 65 for detailed listing.

#### Residential Uses in Commercial Buildings

Approved by Attorney General December 10, 1999

In general, no residential use shall be permitted on street level in the Downtown Business district with the exception of hotels.

- d. **Density and Dimensional Requirements** (For complete detailed information on regulations refer to Article 5, Dimensional Regulations on page 69)

All projects or uses in the Downtown Business District must conform to the density and dimensional requirements in Article 5 Dimensional Regulations, Section 5.12 on page 72 . (Approved by Attorney General December 10, 1999)

- 1) Minimum Lot Area: None
  - a. Single Family: 10,000 square feet
  - b. Two Family: 10,000 square feet
- 2) Minimum Frontage: None
- 3) Minimum Yard Setbacks: N/A (except 25 Feet where abutting residential district)
- 4) Building and Use Intensity
  - a. Maximum Height: 40 feet
  - b. Maximum Number of Stories: 3 stories
  - c. Maximum Floor Area Ratio: 2.25
  - d. Maximum Building Coverage: 75%
  - e. Minimum Open Space % Lot Area: 5%

**e. Downtown Business District Provisions**

1) Commercial Development Performance Standards

In order to receive site plan approval, all projects or uses must demonstrate compliance with the Commercial Development Performance Standards set forth in Article 9, Special Provisions, Section 9.4 on page 114, and abide by the Environmental Performance Standards set forth in Article 9, Special Provisions, Section 9.5 on page 116.

2) Environmental Performance Standards

Any use permitted by right or special permit in any district shall not be conducted in a manner as to emit any dangerous, noxious, injurious, or otherwise objectionable fire, explosion, radio active or other hazard; noise or vibration, smoke, dust, odor or other form of environmental pollution; electrical or electromagnetic, or other disturbance; glare; liquid or solid refuse or wastes; conditions conducive to the breeding of insects, rodents, or other substance; conditions or element in any amount as to affect adversely the surrounding environment. Refer to Article 9 Special Provisions Section 9.5 on page 116.

3) Off-Street Parking

For all zoning districts, off-street parking spaces shall be provided for every new structure, the enlargement of an existing structure, and new or expanded uses, in accordance with the TABLE OF OFF-STREET PARKING REGULATIONS and other requirements contained in Article 6. Off-Street Parking on page 73.

### 3.3.2.2 General Business (GB)

#### a. General Purpose and Description

The General Business District is intended to accommodate a range of general and automobile-related retail and service activities and public uses. These would usually be developed on larger parcels and with greater amounts of on-site parking than is appropriate downtown, and the District is generally mapped on major arteries outside of the downtown area. To control the visual clutter and sprawling land-use patterns typical of strip commercial development, the amount of land mapped in this district should be limited to that actually required for the extent of highway commercial development needed or desired in the town.

The General Business District is established to provide a comprehensive set of development methods to be applied in the highway business area of Ayer, and to recognize the specific characteristics of the highway corridor. The GBD has special requirements as a major roadway and as a conduit to other towns.

The General Business District will contain businesses or uses which include auto-oriented uses that require larger lot sizes, are high volume traffic generators, and are not appropriate for other business districts in the town.

The General Business District is established to achieve the following objectives of the Town of Ayer:

- to direct large-lot businesses, high-volume traffic generators, and auto-oriented uses to the appropriate location.
- to provide safe, efficient traffic flow in the GBD.
- to maintain a high level of design and landscaping quality.
- to provide safe pedestrian and bicycle access to businesses and uses in the GBD.
- to protect property values through quality control.

#### b. Definitions Referenced

The definitions of certain terms referenced in this section are set forth in Article 2, "Definitions" on page 7 of this bylaw.

#### c. Use Regulations

##### Permitted Uses

- 1) Accommodation of up to four roomers/boarders not members of the resident family
- 2) Conversion of a single family dwelling to a two family dwelling
- 3) Tourist homes and Bed and Breakfast establishments
- 4) Use accessory to as of right uses
- 5) Buildings for public/semi-public educational uses
- 6) Buildings for religious uses
- 7) Buildings for governmental uses
- 8) Public Safety Facility
- 9) Medical Institutions
- 10) Public Utility without service yards

- 11) Public Utility with service yards
- 12) Apartments over office/commercial space
- 13) Private Clubs, lodges or other social, recreation or civic group-assembly activity not conducted as a business
- 14) Farming, horticulture, forestry, nurseries, greenhouses, and sale of on premise raised produce
- 15) Golf courses, ski, camping or swimming facilities with incidental sales for patrons
- 16) Hotels, Motels, Inns
- 17) Funeral Homes and Mortuaries
- 18) Retail stores, showrooms, bakeries
- 19) Retail consumer service establishments such as but not limited to barber shops, appliance repair shops, dry cleaners
- 20) Restaurants, cafes, taverns and other food and beverage establishments
- 21) Workshops for custom or on-premise sales goods
- 22) Offices, office buildings
- 23) Banks and other financial institutions
- 24) Theaters, clubs, and other places of indoor commercial amusements and assembly
- 25) Commercial or public parking areas
- 26) Auto sales and service establishments, public garages, and filling stations
- 27) Uses accessory to permitted uses
- 28) Signs
- 29) Boarding of animals for profit

Uses Allowed by Special Permit from Zoning Board

- 1) Detached single family dwellings
- 2) Home Occupations
- 3) New Two family dwellings
- 4) Multifamily dwellings, townhouses
- 5) Extensions of existing cemeteries
- 6) New cemetery
- 7) Wholesaling and distribution
- 8) Drive-in/Drive Through Accessory Uses
- 9) Research, experimental and testing laboratories and related light manufacturing
- 10) Enclosed manufacturing, processing, assembly and fabrication
- 11) Warehousing and interior storage

Uses Allowed by Special Permit by the Board of Selectmen

- 1) Commercial removal of sod, stone, loam or other earth products for use elsewhere in the town

Prohibited Uses

Any use not specifically listed above as permitted or allowed by special permit shall be prohibited. Refer to Article 4, Section 4.4 Table of Use Regulations on page 65 for detailed listing.

**d. Density and Dimensional Regulations** (For complete detailed information on Regulations refer to Article 5, Dimensional Regulations on page 69)

- 1) Minimum Lot Area: 15,000 square feet
- 2) Minimum Frontage: 100 feet

3) Minimum Yard Setbacks:

- a. Front: 30 Feet
- b. Side: 25 feet except 35 feet when abutting a residential district
- c. Rear: 20 Feet

4) Building and Use Intensity

- a. Maximum Height 35 feet
- b. Maximum Number of Stories 3 stories
- c. Maximum Floor Area Ratio 1.25
- d. Maximum Building Coverage 60%
- e. Minimum Open Space % Lot Area 20%

**e. General Business District Provisions**

1) Commercial Development Performance Standards

In order to receive site plan approval, all projects or uses must demonstrate compliance with the Commercial Development Performance Standards herein set forth in Article 9, Special Provisions, Section 9.4 on page 114, and abide by the Environmental Performance Standards set forth in Article 9 Special Provisions Section 9.5 on page 116.

2) Environmental Performance Standards

Any use permitted by right or special permit in any district shall not be conducted in a manner as to emit any dangerous, noxious, injurious, or otherwise objectionable fire, explosion, radio active or other hazard; noise or vibration, smoke, dust, odor or other form of environmental pollution; electrical or electro-magnetic, or other disturbance; glare; liquid or solid refuse or wastes; conditions conducive to the breeding of insects, rodents, or other substance; conditions or element in any amount as to affect adversely the surrounding environment. Refer to Article 9 Special Provisions Section 9.5 on page 116.

3) Screening and Buffers

Screening and buffers shall be required in any Industrial or General Business district which adjoins a residential district. The standards for screening and buffers can be found in Article 9, Special Provisions Section 9.3 on page 112.

4) Off-Street Parking

For all zoning districts, off-street parking spaces shall be provided for every new structure, the enlargement of an existing structure, and new or expanded uses, in accordance with the TABLE OF OFF-STREET PARKING REGULATIONS and other requirements contained in Article 6. Off-Street Parking on page 73.

### 3.3.3 Industrial Districts

#### 3.3.3.1 Light Industrial (L-I)

##### a. General Purpose and Description

The L-I Light Industrial District is intended to accommodate diverse industrial and commercial uses which typically produce limited amounts of noise, truck traffic, vibration or other disruptive impacts while producing significant amounts of employment for the area required. (While there are no mandatory standards such as light manufacturing, and research or testing can provide around one job per 600 square feet of floor area (compared to 1/2 or less than that in wholesale and distribution activity), and office parks can approach a job for every 200 square feet of floor space). This district is mapped on medium sized tracts with good highway access and necessary utilities.

##### b. Definitions Referenced

The definitions of certain terms referenced in this section are set forth in Article 2, "Definitions" on page 7 of this bylaw.

##### c. Use Regulations

###### Permitted Uses

- 1) Buildings for public/semi-public educational uses
- 2) Buildings for religious uses
- 3) Buildings for governmental uses
- 4) Public Safety Facility
- 5) Medical Institutions
- 6) Public Utility buildings without service yards
- 7) Public Utility buildings with service yards
- 8) Apartments over office/commercial space
- 9) Farming, horticulture, forestry, nurseries, greenhouses, and sale of on premise raised produce
- 10) Golf Courses, ski, camping or swimming facilities with incidental sales for patrons
- 11) Hotels, Motels, Inns
- 12) Restaurants, cafes, taverns and other food and beverage establishments
- 13) Workshops for custom or on-premise sales goods
- 14) Offices, office buildings
- 15) Banks and other financial institutions
- 16) Theaters, clubs, and other places of indoor commercial amusements and assembly
- 17) Wholesaling and distribution
- 18) Uses accessory to permitted uses
- 19) Retail stores, retail service establishments, restaurants, etc. primarily for employees and customers of industrial firms
- 20) Retail sale of products primarily wholesaled at the site
- 21) Research, experimental and testing laboratories and related light

- manufacturing
- 22) Enclosed manufacturing, processing, assembly and fabrication
- 23) Warehousing and interior storage
- 24) Exterior storage, screened and without junk storage
- 25) Uses accessory to permitted uses
- 26) Signs

Uses Allowed by Special Permit from Zoning Board

- 1) Retail stores, showrooms, bakeries
- 2) Commercial or public parking areas

Uses Allowed by Special Permit by the Board of Selectmen

- 1) Commercial removal of sod, stone, loam or other earth products for use elsewhere in the town

Prohibited Uses

Any use not specifically listed above as permitted or allowed by special permit shall be prohibited. Refer to Article 4, Section 4.4 Table of Use Regulations on page 65 for detailed listing.

**d. Density and Dimensional Regulations** (For complete detailed information on Regulations refer to Article 5, Dimensional Regulations on page 69)

- 1) Minimum Lot Area: 20,000 square feet
- 2) Minimum Frontage: 100 feet
- 3) Minimum Yard Setbacks:
  - a. Front: 25 Feet
  - b. Side: 25 feet except 50 feet when abutting a residential district
  - c. Rear: 30 Feet except for buildings through block or to a RR siding
- 4) Building and Use Intensity
  - a. Maximum Height 40 feet
  - b. Maximum Number of Stories 3 stories
  - c. Maximum Floor Area Ratio 1.25
  - d. Maximum Building Coverage 50%
  - e. Minimum Open Space % Lot Area 30%

**e. Light Industrial District Provisions**

- 1) Environmental Performance Standards

Any use permitted by right or special permit in any district shall not be conducted in a manner as to emit any dangerous, noxious, injurious, or otherwise objectionable fire, explosion, radio active or other hazard; noise or vibration, smoke, dust, odor or other

form of environmental pollution; electrical or electro-magnetic, or other disturbance; glare; liquid or solid refuse or wastes; conditions conducive to the breeding of insects, rodents, or other substance; conditions or element in any amount as to affect adversely the surrounding environment. Refer to Article 9 Special Provisions Section 9.5 on page 116.

## 2) Screening and Buffers

Screening and buffers shall be required in any Industrial or General Business district which adjoins a residential district. The standards for screening and buffers can be found in Article 9, Special Provisions Section 9.3 on page 112.

## 3) Off-Street Parking

For all zoning districts, off-street parking spaces shall be provided for every new structure, the enlargement of an existing structure, and new or expanded uses, in accordance with the TABLE OF OFF-STREET PARKING REGULATIONS and other requirements contained in Article 6. Off-Street Parking on page 73.

### 3.3.3.2 Heavy Industrial/Distribution District (H-I)

#### a. General Purpose and Description

The H-I Heavy Industrial/Distribution District is intended to accommodate major processing, distribution and manufacturing facilities including those with significant rail and truck traffic requirements, so long as there are no significant off-site environmental impacts which are offensive or detrimental to the Town. This district is to be mapped on major tracts with good rail and highway access, full public and private utilities and appropriate separation from residential areas.

#### b. Definitions Referenced

The definitions of certain terms referenced in this section are set forth in Article 2, "Definitions" on page 7 of this bylaw.

#### c. Use Regulations

##### Permitted Uses

- 1) Buildings for public/semi-public educational uses
- 2) Buildings for religious uses
- 3) Buildings for governmental uses
- 4) Public Safety Facility
- 5) Medical Institutions
- 6) Public Utility buildings without service yards
- 7) Public Utility buildings with service yards
- 8) Apartments over office/commercial space
- 9) Farming, horticulture, forestry, nurseries, greenhouses, and sale of on premise raised produce
- 10) Commercial removal of sod, stone, loam or other earth products for use elsewhere in the town
- 11) Hotels, Motels, Inns
- 12) Wholesaling and distribution
- 13) Uses accessory to permitted uses
- 14) Retail stores, retail service establishments, restaurants, etc. primarily for employees and customers of industrial firms
- 15) Retail sale of products primarily wholesaled at the site
- 16) Research, experimental and testing laboratories and related light manufacturing
- 17) Enclosed manufacturing, processing, assembly and fabrication
- 18) Warehousing and interior storage
- 19) Exterior storage, screened and without junk storage
- 20) Uses accessory to permitted uses
- 21) Signs

##### Uses Allowed by Special Permit from Zoning Board

- 1) Commercial or public parking areas

##### Prohibited Uses

Any use not specifically listed above as permitted or allowed by special permit shall be prohibited. Refer to Article 4, Section 4.4 Table of Use Regulations on page 65 for detailed listing.

**d. Density and Dimensional Regulations** (For complete detailed information on Regulations refer to Article 5, Dimensional Regulations on page 69)

- 1) Minimum Lot Area: 30,000 square feet
- 2) Minimum Frontage: 150 feet
- 3) Minimum Yard Setbacks:
  - a. Front: 25 Feet
  - b. Side: 25 feet except 50 feet when abutting a residential district
  - c. Rear: 30 Feet except for buildings through block or to a RR siding
- 4) Building and Use Intensity
  - a. Maximum Height 40 feet
  - b. Maximum Number of Stories 3 stories
  - c. Maximum Floor Area Ratio 1.00
  - d. Maximum Building Coverage 50%
  - e. Minimum Open Space % Lot Area 20%

**e. Heavy Industrial/Distribution District Provisions**

1) Environmental Performance Standards

Any use permitted by right or special permit in any district shall not be conducted in a manner as to emit any dangerous, noxious, injurious, or otherwise objectionable fire, explosion, radio active or other hazard; noise or vibration, smoke, dust, odor or other form of environmental pollution; electrical or electro-magnetic, or other disturbance; glare; liquid or solid refuse or wastes; conditions conducive to the breeding of insects, rodents, or other substance; conditions or element in any amount as to affect adversely the surrounding environment. Refer to Article 9 Special Provisions Section 9.5 on page 116.

2) Screening and Buffers

Screening and buffers shall be required in any Industrial or General Business district which adjoins a residential district. The standards for screening and buffers can be found in Article 9, Special Provisions Section 9.3 on page 112.

3) Off-Street Parking

For all zoning districts, off-street parking spaces shall be provided for every new structure, the enlargement of an existing structure, and new or expanded uses, in accordance with the TABLE OF OFF-STREET PARKING REGULATIONS and other requirements contained in Article 6. Off-Street Parking on page 73.

**3.3.4 Health Care Service District (HCS)**  
(Approved by Attorney General September 14, 2006)

**a. General Purpose and Description**

The Health Care Services District is intended to provide for the health and care needs of the community within a district designed for a hospital, medical facilities, medical office buildings and the customary supporting facilities. This district is to allow hospitals, clinics, treatment facilities, offices, temporary housing for employees, laboratories, sale of materials, and supplies of a medical nature and similar related uses. Further, this district will maintain an appropriate scale and will ensure compatibility between uses within the Health Care Services District and abutting residential districts through appropriate density, dimensional and other requirements.

**b. Definitions Referenced**

The definitions of certain terms referenced in this section are set forth in Article 2, "Definitions" on page 7 of this bylaw.

**c. Location of HCS District**

The Health Care Services District comprises the portions located in Ayer of a parcel which is known as 200 Groton Road (a/k/a Washington Street). The overall parcel includes approximately 40 acres, such calculation excluding certain areas which are located in the Town of Groton. The metes and bounds description of the overall parcel (inclusive of the portions in Groton is as follows:

"Beginning at a concrete bound on the Northerly sideline of Washington Street, said beginning point being the Southeasterly corner of the locus; Thence running N74° 41' 35"W by land now or formerly of Michael J. and Phillipa J.C. MacDougall, by land now or formerly of RNR Trust Two, and by land now or formerly of Robert J. and Barbara J. Donell Seven Hundred Thirty-One and Eleven Hundredths (731.11) feet to a point; Thence turning and running S84° 53' 18"W by land now or formerly of Robert J. and Barbara J. Donell One Hundred Sixty-One and Twenty-Two Hundredths (161.22) feet to a point; Thence turning and running S81° 19' 37"W Sixty-Two and Seventy-Five Hundredths (62.75) feet to a point; Thence turning and running S84° 48' 43"W still by land now or formerly of said Robert J. and Barbara J. Donell and by land now or formerly of Harold W. and Maryann Madigan One Hundred Ninety-Two and Sixty-Five Hundredths (192.65) feet to a point; Thence turning and running S83° 54' 43"W still by land now or formerly of said Harold W. and Maryann Madigan One Hundred Eight and Twenty-Five Hundredths (108.25) feet to a point on the Northeasterly sideline of Old Harbor Road (Abandoned); Thence turning and running N22° 27' 12"W by the Northeasterly sideline of said Old Harbor Road (Abandoned) Two Hundred Six and No Hundredths (206.00) feet to a point; Thence turning and running N36° 10' 30"W sill by the Northeasterly sideline of Old Harbor Road (Abandoned)Forty-Two and Ninety Hundredths (42.90)feet to a point; Thence turning and running in a generally northerly direction by a curve to the left of Two Thousand Two Hundred Thee and Fifty-five Hundredths (2203.55) feet radius by land now or formerly of the Department of Environmental Management Two Hundred Sixty-Two and Ninety-Six Hundredths (262.96) feet to a point of tangency; Thence running N10° 03' 03"E still by land now or formerly of said Department of Environmental Management Eight Hundred Nineteen and Fifty Hundredths (819.50) feet to a point; Thence turning and running S78° 37' 12"E by land now or formerly of Inhabitants of the Town of Groton One Thousand Five Hundred Twenty-Eight and Sixty-Six Hundredths (1528.66) feet to

a point;Thence turning and running S11° 25'08"W by land now or formerly of Kathryn A Parsons One Hundred Sixty-Six and Ninety-Six Hundredths (166.96) feet to a point; Thence turning and running S72° 23'24" E still by land or formerly of said Kathryn A. Parsons One Hundred Seventy-One and Sixteen Hundredths (171.16) feet to a point on the Northerly sideline of Washington Street;Thence turning and running S38° 26'38"W One Hundred Sixty-Five and Ninety-Seven Hundredths (165.97) feet to a point of curvature;Thence running generally Southwesterly direction by a curve to the left of One Thousand Five Hundred Sixty-Eight and Sixteen Hundredths (1568.16) feet radius Four Hundred Five and Fifty-Three Hundredths (405.53) feet to a point of tangency;Thence running S23° 37'38"W still by the Northerly sideline of said Washington Street Four Hundred Seventy-Three and Ninety-Six hundredths (473.96) feet to a point of beginning ;Containing a total area of Forty and Six Hundred Fifty-Two Thousands (40.652) acres, more or less. All being shown on a plan entitled "ALTA/ACSM Land Title Survey, Nashoba Hospital, 200 Washington Street, Ayer, MA (Middlesex County)", SCALE 1"=100', by Coler & Colantonio, Inc. dated December 9, 2002, excluding any portions thereof located in the Town of Groton."

d. Use Regulations

Permitted Uses

- 1) Hospital
- 2) Emergency Room
- 3) Psychiatric Mental health unit only for patients originating from the service area for a community acute care medical/surgical hospital
- 4) Medical research laboratory
- 5) Medical diagnostics
- 6) Transitional care unit
- 7) Outpatient clinic
- 8) Medical/dental/psychiatric office building
- 9) Nursing home
- 10) Child Care facility
- 11) Ancillary and supporting pharmacy
- 12) Ancillary and supporting dwelling units for resident physicians, employees and medical staff
- 13) Ancillary and supporting health and fitness facility
- 14) Ancillary and supporting trailers used for temporary storage of medical equipment and supplies
- 15) Ancillary and supporting storage of mobile medical vehicles
- 16) Ancillary and supporting temporary modular office space
- 17) Ancillary and supporting swimming pool
- 18) Ancillary and supporting newsstand or cafeteria
- 19) Ancillary and supporting training/educational center for the public
- 20) Ancillary and supporting maintenance of vehicles and equipment
- 21) Ancillary and supporting helipad
- 22) Ancillary and supporting storage buildings

Prohibited Uses

Any use not specifically listed above as permitted or allowed by special permit shall be prohibited. Refer to Article 4, Section 4.4 Table of Use Regulations on page 65 for detailed listing.

e. **Density and Dimensional Regulations** (\*/\*\* additional requirements noted in Dimensional Regulations Table. For complete detailed information on regulations refer to Article 5, Dimensional Regulations on page 69.)

- 1) Minimum Lot Area: 40,000 square feet
- 2) Minimum Frontage: 100 feet
- 3) Minimum Yard Setbacks:
  - a. Front: 30 Feet
  - b. Side: 20 feet\*
  - c. Rear: 20 Feet \*
- 4) Building and Use Intensity
  - a. Maximum Height 75 feet
  - b. Maximum Number of Stories 6 stories
  - c. Maximum Floor Area Ratio .45
  - d. Maximum Building Coverage 60%
  - e. Minimum Open Space % Lot Area 40%
- 5) More than One Building on a Parcel

Minimum lot frontage and yard requirements are to apply to the perimeter of the Health Care Services District unless the fee owner elects to divide or subdivide land pursuant to the Subdivision Control Law, M.G.L. c.41 ss 81K et seq. Following any such division or subdivision, such minimum lot frontage and yard requirements shall apply to all property lines created thereby. The minimum lot area, maximum building coverage percentage, maximum floor area ratio and minimum open space percentage are to apply to the entire District only in the aggregate, regardless of whether or not any such division or subdivision occurs from time to time.

**f. Health Care District Provisions**

1) Wireless Communication Standards

Areas within the Health Care Services district shall be deemed to be located within the Wireless Communications Service District. Notwithstanding any other provision of this bylaw wireless communications antenna facilities to be used solely for purposes related to the medical mission of buildings located within the Health Care Services District which antennae shall be limited in height to an elevation not more than 12 feet higher than the highest building located within the District, are to be permitted as of right, and without the need to obtain a Special Permit. In the event that any such antenna facility is to be used by third parties not associated with such medical mission, such use shall be subject to the Wireless Communications Services District provisions as set forth in Article 3, Zoning Districts, Section 3.3.5 on page 45, Subsection 3.3.5.1 of this bylaw.

2) Parking

In the Health Care Services District, notwithstanding any other provision of this bylaw, required off-street parking facilities may be located on any lot within the District, provided that, in the event that of any division or subdivision occurs within the District resulting in the creation of new lots, each lot in the District shall either (i) accommodate the required parking facilities associated with uses on that lot, or (ii) have the benefit of perpetual easement rights to utilize such parking facilities on other lots within the District as may be required for uses on the benefited lot.

However the total number of required off-street parking spaces will continue to be based upon calculation of applicable parking requirements for each use existing from time to time on this lot and on each of the lots so benefited. In the Health Care Services District, notwithstanding any other provision of this bylaw, off-street parking facilities may be located in the required front yard, provided that parking spaces are located no closer than 30 feet from the property line adjacent to Groton Road. In the Health Care Services District, notwithstanding any other provision of this bylaw, each required car space shall not be less than nine (90)feet in width and eighteen (18) feet in length, exclusive of drives and maneuvering space. Refer to Article 6. Off Street Parking on page 73 for further information.

### 3) Open Space and Buffer Area requirements

In the Health Care Services District, dwelling structures shall be set back from other structures, whether residential or not, a minimum of 50 feet, and at least 50% of such required setback shall be grassed, landscaped or wooded land available for active and passive recreation. Refer to Article 7 Special Development Regulations, Section 7.2, Subsection 7.2.4 on page 97 for further information.

### 4) Screening

In the Health Care District, such portions of the perimeter of the District as lie within 50 feet of any parking area constructed after the date hereof shall be landscaped with medium height shrubs planed not more than five (5) feet on center).

In the Health Care Services District, at such time any facility is constructed after the date hereof to a height of more than three stories, those portions of each yard at any perimeter of the District which does not front on a public way shall be screened from adjacent residential districts with landscaping designed to reduce the impact of buildings, parking and other uses within the District upon such adjacent residential districts. Such landscaping shall include a screen of plantings in the center of the yard not less than three (3) feet in width and six (6) feet in height. Individual shrubs shall be planed not more than five (5) feet on center (except where a tree is planted in between, in which case the shrubs may be no more than ten (10) feet on center), and shade trees having a minimum 2-inch caliper being planted.

At least 50% of the plants and trees in the screens required under paragraph 1 and 2 hereof shall consist of evergreens. After completion, such landscaping thereafter shall be maintained by the owner of the land on which such screen is located so as to maintain a screen year-round. Completion of the landscaping requirements may be postponed for a period not to exceed six (6) months from the time of completion of the parking or building due to weather conditions. Refer to Article 9 Special Provisions, Section 9.3 on page 112 for further information.

### **3.3.5 Overlay Districts**

#### **3.3.5.1 Wireless Communications Services District**

Approved by Attorney General July 26, 2000/May 9, 2006

In addition to the general conditions and procedures established in this Bylaw for all special permits Site Plan Review, the following additional requirements and procedures shall apply.

##### **a. General Purpose and Description**

The purpose of this section is to establish a district in which wireless communication services may be provided with minimal harm to the public health, safety, and general welfare. Specifically, the Wireless Communications Services District has been created to (a) protect the general public from hazards of structural failure associated with wireless communications facilities and (b) minimize visual impacts from Wireless communications facilities on view sheds and residential districts in Ayer. This section does not apply to satellite dishes and antennas for residential use.

##### **b. Definitions**

- 1) **TELECOMMUNICATION FACILITIES:** Towers, antennas and accessory structures, including personal wireless facilities, used in connection with the provision of cellular telephone services, personal communication services, paging services, radio and television broadcast services, and similar broadcast services. Telecommunications facilities do not include the following facilities which are accessory uses or structures: antenna used solely for residential household television, radio, and data reception; satellite antenna measuring 2 meters or less in diameter in business and industrial districts and satellite antenna 1 meter or less in diameter in other districts; nor amateur radio facilities actively used in accordance with the terms of any amateur radio service license issued by the Federal Communication Commission, provided that the tower is not used or licensed for any commercial use.
- 2) **TELECOMMUNICATIONS TOWERS:** Structures designed to support antennas, including free-standing towers, guyed towers, mono-poles, towers on buildings, and similar structures.
- 3) **TELECOMMUNICATIONS ANTENNA:** A system of electrical conductors that transmit and/or receive radio frequency signals, but not including any support system designed to increase the height of the antenna above the tower or building. Such signals shall include but not be limited to radio, television, cellular, paging, Personal Communication Services (PCS) and microwave communications.

##### **c. Description of Areas Included in the Wireless Communications Services District**

The Wireless Communications Services District shall include:

- 1) that land owned by the Town of Ayer identified on Town of Ayer Assessor's Map 20, Parcel 22.
- 2) all the land located within the Light Industrial or Heavy Industrial districts, or

- 3) that land located within the A-1 Residential District bounded by Willow Road, Snakehill Road, Littleton Road and the railroad.
- 4) The Wireless Communications Services District shall be construed as an overlay district with regard to said locations. All requirements of the underlying zoning district shall remain in full force and effect, except as may be specifically superseded herein.
- 5) Areas within the Health Care Services district shall be deemed to be located within the Wireless Communications Service District.

**d. Use Restrictions**

- 1) The wireless communication facilities allowed are free-standing monopoles, lattice steelwork structures, or antennae affixed to existing structures, with associated antenna and/or panels. Monopoles are preferred. Satellite dishes and/or antenna may be located on existing structures or may be free-standing. Monopoles may be located on buildings.
- 2) Within the Wireless Communications Service District, Telecommunications Facilities may be constructed only after the issuance of a Special Permit from the Zoning Board of Appeals in accordance with this section and Article 11, Section 11.2. Subsection 11.2.1 on page 125.
- 3) Telecommunications towers are not permitted in the underlying Downtown Business District.
- 4) To the extent feasible, all service providers shall co-locate on a single facility. Any new tower must be designed, to the maximum extent which is practical and technologically feasible, for co-location of other telecommunications antenna, including offering space to all other telecommunication providers at market rates and provision for towers to be expanded upward. Tower space may also be offered to public safety users. New towers shall be considered only upon a finding by the Zoning Board of Appeals that existing or approved towers cannot adequately fulfill the applicant's service requirements or accommodate the wireless communications equipment contemplated by the applicant.
- 5) In no event shall any other telecommunications tower be located closer than one (1) mile to any other tower.
- 6) Towers with one telecommunication provider shall be limited to 140 feet. Towers with co-located facilities shall be allowed an additional 20 feet for each additional provider up to a maximum of one hundred ninety (190) feet. These height limits shall not apply to towers for government telecommunications.
- 7) In a residential zoning act, a tower shall not be erected nearer to any property line than a distance equal to one hundred ten percent (110%) the vertical height of the tower, excluding satellite dishes and/or antennas attached to existing structures, measured at the mean finished grade of the facility base. The Zoning Board of Appeals may allow a shorter setback if the shorter setback provides adequate safety and esthetics, and the manufacturer or qualified licensed designer certifies that the tower is designed to collapse on itself in the event of failure.
- 8) Setback from designated wetlands, water bodies and areas with a slope in excess of five (5) percent shall be at least one hundred and fifty (150) feet or 110% of the height of the tower, whichever is greater. Conservation Commission review and

approval may be necessary.

9) Siting shall be such that the view of the facility from adjacent abutters, residential neighbors, and other areas of Town shall be as limited as possible. Generally, towers shall be a galvanized, corten, or equal, or non-rusting finish unless otherwise required by the FAA. Towers may be required to be painted, when appropriate, to blend in with the landscape.

10) Fencing shall be provided to control access to wireless communication facilities and shall be compatible with the scenic character of the Town and designed to be as unobtrusive as possible.

11) Provide additional landscaping to screen facilities and preserving, to the extent possible, existing on-site trees and vegetation.

12) There shall be no signs except a sign identifying the facility, the owner and operator and an emergency telephone number where the owner can be reached on a twenty-four (24) hour basis; a no trespassing sign; a sign displaying the FCC registration number and, any signs required to warn of danger. All signs shall comply with the requirements of the Ayer Zoning Ordinance.

13) Design and siting of towers should avoid, whenever possible, application of FAA fighting and painting requirements. Towers shall not be artificially lighted except as required by the Federal Aviation Administration (FAA).

14) There shall be a minimum of one (1) parking space for each facility, to be used in connection with the maintenance of the facility and the site, and not to be used for the permanent storage of vehicles.

15) To the extent technologically feasible, all network interconnections from the facility shall be via underground lines.

16) Applicants proposing to erect facilities on municipally owned land or structures shall provide evidence of contractual authorization from the Town of Ayer to conduct wireless communications services on municipally owned property.

17) Antennas or dishes located on a structure shall not exceed twenty-five (25) feet in height above the level of its attachment to the structure.

18) Notwithstanding any other provision of this bylaw wireless communications antenna facilities to be used solely for purposes related to the medical mission of buildings located within the Health Care Services District which antennae shall be limited in height to an elevation not more than 12 feet higher than the highest building located within the District, are to be permitted as of right, and without the need to obtain a Special Permit. In the event that any such antenna facility is to be used by third parties not associated with such medical mission, such use shall be subject to the Wireless Communications Services District provisions as set forth in Section 3.3.51 of this bylaw.

**e. Submittal Requirements**

1) In accordance with this section, the location of a telecommunications facility will require a Special Permit from the Zoning Board of Appeals and Site Plan Approval. An application for a special permit shall be filed in accordance with Article 11, Section 11.2, Subsection 11.2.1. on page 125 and shall be accompanied by 10

copies of the following information. An application for Site Plan Approval shall be accompanied by 10 copies of the following information;

- (a) Details of the tower (monopole, steelwork, guyed, freestanding, or other), guy wires and anchors, tower lighting, and all structures located within 300 feet of any tower.
- (b) Location of alternate sites, if any.
- (c) Color photographs, computer simulation or renditions illustrating the proposed tower with its antenna and/or panels or dishes and its location. The Zoning Board may require additional visual analysis such as, among other items, enhanced landscaping plans and line-of-site drawings. Within thirty days after filing the application for any new tower or extension in height thereto, if requested by the Zoning Board, the applicant shall arrange to fly a balloon at the site at the maximum height of the proposed installation on a weekend day between the hours of noon and 3 p.m. The balloon shall be of size and color that can be seen from every direction for a distance of one (1) mile.
- (d) A certification that the applicant possesses all necessary licenses to operate such a facility and has complied with all federal and state requirements to provide the proposed service.
- (e) Reports prepared by one or more registered professional engineers, which shall:
  - 1. Demonstrate that the tower complies with applicable standards of the Federal and State governments.
  - 2. Describe the capacity of the tower including the number and type of transmitting and receiving antennas that it can accommodate and the basis for the calculation of capacity.
  - 3. Demonstrate that the tower and site comply with this regulations.
  - 4. Describe the auxiliary power source, if any.
- (f) A copy of the FCC registration, FCC license, and FAA opinion letter or registration for the proposed facility and applicant .
- (g) Before any new tower is approved, the applicant must demonstrate that it is not feasible to locate their antenna and facilities on an existing tower or building. Before a new tower is proposed in a residential district, the applicant must also demonstrate that it is not feasible to locate their antenna and facilities in other districts or on municipal facilities. Such demonstration studies shall include a summary of propagation studies and a plan for any network of facilities.

**f. Approval**

- 1) A Special Permit shall be granted by the Zoning Board of Appeals in accordance with the Massachusetts General Law and Article 11, Section 11.2, Subsection 11.2.1. on page 125 of this bylaw. The Planning Board may require submission of alternative screens or camouflaging. Any extension, addition of cells, antennas or panels, construction of a new facility, or replacement of a facility, shall be subject to a new

application for an amendment to the Special Permit.

2) A Site Plan shall be approved by the Planning Board in accordance with this bylaw.

**g. Conditions of Use**

1) The tower and its transmissions shall comply in all respects with the current standards of the American National Standards Institutes (ANSI) and the National Council for Radiation Protection (NCRP), whichever are stricter.

2) All telecommunication facilities shall be operated only at Federal Communications Commission (FCC) designated frequencies and power levels, and the applicant shall provide certification that the allowable frequencies are not deviated from, and power levels will not be exceeded. Certification shall include technical specifications, an explanation of those specifications, and, if necessary, field verification.

3) All used facilities or parts thereof or accessory facilities and structures which have not been used for one (1) year shall be dismantled and removed at the owner's expense.

4) All Telecommunications Facilities shall be maintained in good order and repair. Any paint and finish must be annually maintained and repaired when the blemishes are visible from the property line. Annual inspection and maintenance reports for the tower and site shall be filed with the Zoning Enforcement Officer.

**h. Performance Guarantees**

1) Insurance in a reasonable amount determined and approved by the Zoning Board after consultation at the expense of the Applicant with one (1) or more insurance companies shall be in force to cover damage from the structure and other site liabilities. Annual proof of said insurance shall be filed with the Town Clerk.

2) An initial bond shall be posted for annual maintenance for any access road, site and tower in an amount approved by the Zoning Board.

3) The Zoning Board may require an additional financial performance guarantee to insure that facilities which have not been used for one year, are removed.

4) Annual certification demonstrating continuing compliance with the standards of the Federal Communications Commission, Federal Aviation Administration and the American National Standards Institute shall be filed with the Zoning Enforcement Officer by the Special Permit holder at the operator's expense.

### 3.3.5.2 Flood Plain District

Approved by Attorney General December 10, 1999.

#### a. Purpose

The purposes of the Flood Plain District are to protect the public health safety and general welfare to protect human life and property from the hazards of periodic flooding to preserve the natural flood control characteristics and the flood storage capacity of the Flood Plain and to preserve and maintain the groundwater table and recharge areas within the flood plain.

#### b. District Delineation.

The general boundaries of the Flood Plain District are shown on the Ayer Flood Insurance Rate Map (FIRM) dated July 19, 1982 as Zones A, A 1-30 to indicate the 100 year flood plain. The exact boundaries of the District are defined by the 100 year water surface elevations shown on the FIRM and further defined by the Flood Profiles contained on the Flood Insurance Study dated July 19, 1982. The floodway boundaries are delineated on the Ayer Flood Boundary Floodway Map (FIRM) dated July 19, 1982, and further defined by the Floodways Data Tables contained in the Flood Insurance Study. These two maps as well as the accompanying Study are incorporated herein by reference and are on file with the Town Clerk, Planning Board and Building Inspector.

Within Zone A where the 100 year flood elevation is not provided on the FIRM the developer/applicant shall obtain any existing flood evaluation data and that shall be reviewed by the Building Inspector. If the data is sufficiently detailed and accurate it shall be relied upon to require compliance with this By-law and the State Building Code.

The Flood Plain District is established as an overlay district to all other districts. All development including structural and non-structural activities whether permitted by right or by special permit must be in compliance with Chapter 131, Section 40 of the Massachusetts General Laws and the requirements of the Massachusetts State Building Code pertaining to construction in the flood plains (currently Section 744.)

#### c. Permitted Uses

- 1) The following uses of low flood-damage potential and no potential to obstruct flood flows shall be allowed provided they are permitted in the underlying district and they do not require structures, fill, or storage of materials or equipment:
  - (a) Agricultural uses such as farming, grazing, truck farming, horticulture, etc.
  - (b) Forestry and nursery uses.
  - (c) Outdoor recreational uses, including fishing, boating, play areas, etc.
  - (d) Conservation of water, plants, wildlife.
  - (e) Wildlife management areas, foot, bicycle, and/or horse paths.
  - (f) Temporary non-residential structures used in connection with fishing, growing, harvesting, storage, or sale of crops raised on the premises.
  - (g) Buildings lawfully existing prior to the adoption of these provisions.

**d. Special Permits.**

1) Within the flood plain district no structure or building shall be created, constructed, substantially improved, or otherwise created or moved; and no earth or other materials shall be dumped, filled, excavated, or transferred, without a special permit from the Zoning Board of Appeals. Said Board may issue a special permit hereunder (subject to other applicable provisions of this By-law) if the application complies with the following provisions:

- (a) The proposed use shall comply in all respects with the provisions of the underlying District and;
- (b) Within 10 days of receipt of the application, the Board shall transmit one copy of the development plan to the Conservation Commission, Planning Board, Board of Health, Town Engineer and Building Inspector. Final action shall not be taken until reports have been received from the above Boards or until 35 days have elapsed and;
- (c) All encroachments, including fill, new construction substantial improvements to existing structures and other development are prohibited unless certification by a registered professional engineer is provided by the applicant demonstrating that encroachment shall not result in any increase in flood levels during the occurrence of the 100 year flood and;
- (d) The Board may specify such additional requirements and conditions it finds necessary to protect the health, safety, and welfare of the public and the occupants of the proposed use.

**e. Board of Appeals Rules and Regulations.**

Should the Board of Appeals consider a petition for a variance from the regulations set forth in the Flood Plain District of the Zoning By-law, the following procedures will be adhered to:

- 1) The Board of Appeals shall only issue a variance upon;
  - (a) a showing of good and sufficient cause, and;
  - (b) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and;
  - (c) a determination that the granting of a variance will not result in increased flood heights, additional heights, additional threats to public safety, or extraordinary public expenses; and that it will not create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws, and .;
  - (d) a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- 2) Variances may be issued for structures to be erected on a lot of one half acre or less in size, if otherwise permitted by law, contiguous to and surrounded by lots

with existing structures constructed below the base flood level.

3) A variance shall not be used within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.

4) If a variance is granted, the Board of Appeals shall notify the applicant in writing over their signature that:

(a) the issuance of such variance to construct a structure below the base flood elevation will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and ;

5) The Board of Appeals will maintain a record of all variance actions, including Justification for their issuance and report such variances issued in the Annual Report submitted to the Federal Insurance Administration.

6) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or on State Inventory of Historic Places, without regard to the procedures set forth above.

**3.3.5.3 AQUIFER PROTECTION DISTRICT BYLAW**  
Approved by Attorney General December 10, 1999

**a. Purpose of District**

The purpose of this Aquifer protection district is to:

- 1) promote the health, safety, and general welfare of the community by ensuring an adequate quality and quantity of water for the residents, institutions, and businesses of the Town of Ayer;
- 2) preserve and protect existing and potential sources of drinking water supplies;
- 3) conserve the natural resources of the Town of Ayer; and prevent temporary and permanent contamination of the environment.

**b. Scope of Authority**

The Aquifer protection district is an overlay district superimposed on the zoning districts. This overlay district shall apply to all new construction, reconstruction, or expansion of existing buildings, change of use and new or expanded uses. Applicable activities or uses in a portion of one of the underlying zoning districts which fall within the Aquifer protection district must additionally comply with the requirements of this district. Uses prohibited in the underlying zoning districts shall not be permitted in the Aquifer protection district.

**c. Definitions**

For the purposes of this section, the following terms are defined below:

**Aquifer:** Geologic formation composed of rock, sand or gravel that contains significant amounts of potentially recoverable water.

**Aquifer protection district:** The zoning district defined to overlay other zoning districts in the Town of Ayer. The aquifer protection district may include specifically designated recharge areas.

**Impervious Surface:** Material or structure on, above, or below the ground that does not allow precipitation or surface water to penetrate directly into the soil.

**Mining:** The removal or relocation of geologic materials such as topsoil, sand, gravel, metallic ores, or bedrock.

**Potential Drinking Water Sources:** Areas which could provide significant potable water in the future.

**Recharge areas:** Areas that collect precipitation or surface water and carry it to aquifers. Recharge areas may include areas designated as Zone I, Zone II, Zone III or Interim Wellhead Protection Areas.

**Zone I:** The DEP approved protective 400 foot radius surrounding a public water supply well that must be owned by the water supplier or controlled through a recorded conservation restriction.

**Zone II:** The area of an aquifer which contributes water to a well under the most severe recharge and pumping conditions that can be realistically anticipated (180 days of pumping safe yield with no recharge from precipitation), as defined in 310 CMR 22.00.

Zone III: The land area beyond the Zone II from which surface and groundwater drain into the Zone II, as defined in 310 CMR 22.00.

Interim Wellhead Protection Area (IWPA): For public water systems using wells or wellfields that lack a DEP-approved Zone II, DEP will apply an IWPA, which is defined as the one-half mile radius measured from the well or wellfield for sources whose approved pumping rate is 100,000 gpd or greater.

Special Permit Granting Authority (SPGA): The Special Permit Granting Authority under this bylaw shall be the Board of Health.

Toxic or Hazardous Material: Any substance or mixture of physical, chemical, or infectious characteristics posing a significant, actual or potential hazard to water supplies or other hazards to human health if such substance or mixture were discharges to land or water in the Town of Ayer. Toxic or hazardous materials include, without limitation; synthetic organic chemicals, petroleum products, heavy metals, radioactive or infectious wastes, acids and alkalis, and all substances defined as Toxic or Hazardous under Massachusetts General Laws (M.G.L.) Chapter (c.) 21C and 21E and 310 CMR 30.00, and also include such products as solvents and thinners in quantities greater than normal household use.

**d. Establishment and Delineation of Aquifer Protection District**

The Aquifer Protection District is herein established to include all land mapped as a designated Zone II area surrounding a public water supply well, and certified by the Massachusetts Department of Environmental Protection or Interim Wellhead Protection Areas. The Aquifer Protection District shall be shown on a map at a scale of 1 inches to 800 feet, to be entitled "Aquifer Protection District" dated April 1999, which shall be considered to be superimposed over other zoning districts. This map, as it may be amended from time to time, shall be on file in the offices of the Town Clerk, Building Inspector and Planning Board, and with any explanatory material thereon, is hereby made a part of this zoning bylaw. The Town reserves the right to extend the provisions of this zoning bylaw to any future potential water supply sources.

**e. District Boundary Disputes**

Where the bounds of the Aquifer Protection District, as delineated on the Aquifer Protection District map, are in doubt or in dispute, the burden of proof shall be upon the owner(s) of the land in question to show where they should properly be located. A special permit, in accordance with the provisions of section g. of this zoning bylaw, may be granted to allow relief from the requirements of the Aquifer Protection District, subject to a finding by the Special Permit Granting Authority (SPGA) that the property in question in accordance with this paragraph is not located within a Zone II. If the applicant wishes to pursue the dispute regarding the boundaries, then at the discretion of the Town, the Town may engage a professional engineer (civil or sanitary), hydrogeologist or soil scientist to determine more accurately the locations and extent of an aquifer or recharge area and shall charge the owner(s) for all of the cost of the investigation. The district boundary is defined by hydrogeologic research, testing and field analysis; therefore, a professional engineer, hydrogeologist, or soil scientist may define or redefine the boundary. For disputes which may arise related to Zone II areas, the determination of the location and extent of the Zone II shall be in conformance with the criteria set forth in 310 CMR 22.00 and in the DEP's Guidelines and Policies for Public Water Systems and approved by DEP.

**f. Use Regulations**

In the Aquifer Protection District the following regulations shall apply:

#### Permitted Uses

The following uses are permitted within the Aquifer Protection District, provided that all necessary permits, orders, or approvals required by local, state, or federal law are also obtained:

- 1) conservation of soil, water, plants, and wildlife;
- 2) outdoor recreation, nature study, boating, fishing, and hunting where otherwise legally permitted;
- 3) foot, bicycle and/or horse paths, and bridges;
- 4) normal operation and maintenance of existing water bodies and dams, splash boards, and other water control, supply and conservation devices;
- 5) maintenance, repair, and enlargement of any existing structure, subject to Section f. Use Regulations – prohibited uses and special permitted uses.

residential and commercial/industrial development, subject to Section f. Use Regulations – prohibited uses and special permitted uses.

- 6) farming, gardening, nursery, conservation, forestry, harvesting, and grazing, subject to Section f. Use Regulations – prohibited uses and special permitted uses.
- 7) construction, maintenance, repair and enlargement of drinking water supply related facilities such as, but not limited to, wells, pipelines, aqueducts, tunnels, filtration plants, municipal water and wastewater pumping stations, and water storage facilities.

#### Prohibited Uses

The following uses, including anything that is not expressly permitted under Section f. Use Regulations permitted and special permitted uses of this bylaw, shall be deemed to be prohibited:

- 1) landfills and open dumps as defined in 310 CMR 19.006;
- 2) automobile graveyards and junkyards, as defined in M.G.L. c. 140B Sec. 1;
- 3) landfills for sludge and septic only
- 4) storage of sludge and septage, unless such storage is in compliance with 310 CMR 32.30 and 310 CMR 32.31;
- 5) facilities that generate, use, treat, store, or dispose of hazardous waste that are subject to M.G.L. c. 21C and 310 CMR 30.00 including but not limited to metal plating, chemical manufacturing, wood carving, furniture stripping, dry cleaning and auto body shops, except for the following:
  - (a) very small quantity generators as defined under 310 CMR 30.000;
  - (b) water remediation treatment works approved by DEP for the treatment of

- 6) storage of hazardous materials, as defined in M.G.L. c. 21E, unless such storage is in compliance with 527 CMR 9.00 at the time of the passage of this bylaw.
- 7) storage of liquid petroleum products, except the following:
  - (a) normal household use, outdoor maintenance, or heating of a structure;
  - (b) emergency generators required by statute, rule, or regulation;
  - (c) treatment works approved under 314 CMR 5.00 for treatment of ground or surface waters; provided that such storage listed in items is in freestanding containers within buildings or above ground with secondary containment adequate to contain a spill the size of the container's total storage capacity;
- 8) petroleum, fuel oil and heating oil bulk stations and terminals, unless such station or terminal is in compliance with 527 CMR 9.00 at the time of the passage of this by-law, including but not limited to, those listed under Standard Industrial Classification (SIC) Codes 5171 and 5983. SIC Codes are established by the U.S. Office of Management and Budget and may be determined by referring to the publication, Standard Industrial Classification Manual and any subsequent amendments thereto.
- 8) storage of deicing chemicals, including but not limited to sodium chloride and calcium chloride; unless stored in a building;
- 9) stockpiling and disposal of snow or ice containing sodium chloride, calcium chloride, chemically treated abrasive or other chemicals used for the removal of snow or ice on roads which has been removed from highways and street located outside of Zone II.
- 10) storage of animal manure unless covered or contained in accordance with the specifications of the United State Soil Conservation Service;
- 11) earth removal, consisting of the removal of soil, loam, sand, gravel, or any other earth material (including mining activities) to within 6 feet of historical high groundwater as determined from monitoring wells and historical water table fluctuation data compiled by the United States Geological Survey, except for excavations for building foundations, roads, or utility works;
- 12) treatment or disposal works for non-sanitary wastewater that are subject to 314 CMR 4.00, except:
  - (a) the replacement or repair of an existing treatment works that will not result in a design capacity greater than the design capacity of the existing treatment works;
  - (b) the replacement or repair of an existing subsurface sewage disposal system(s) that will not result in a design capacity greater than the design capacity of the existing system(s);
  - (c) treatment works approved by the Department designed for the treatment of contaminated groundwater;
  - (d) sewage treatment facilities in those areas with existing water quality problems when it has been demonstrated to the Department of Environmental Protection's and the Special Permit Granting Authority's satisfaction both that these problems are attributable to current septic problems and that there will be a net improvement in water quality.

13) storage of commercial fertilizers and soil conditioners, as defined in MGL Chapter 128, Sec. 64;

14) the use of septic system cleaners which contain toxic chemicals, including but not limited to, methylene chloride and 1-1-1 trichlorethane.

15) individual sewage disposal systems that are designed in accordance with 310 CMR 15.00 to receive more than 110 gallons of sewage per quarter acre under one ownership per day or 440 gallons of sewage on any one acre under one ownership per day, whichever is greater provided that:

(a) the replacement or repair of a system, which will not result in an increase in design capacity over the original design, or the design capacity of 310 CMR 15.00, whichever is greater, shall be exempted;

(b) in cluster subdivisions the total sewage flow allowed shall be calculated based on the number of percable lots in the entire parcel;

16) underground storage and-or transmission of petroleum products including liquefied petroleum gas, unless all requirements for secondary containment specified in 310 CMR 30.693 and the Town of Ayer's 1985 Underground Storage Tank Bylaw are met. The local enforcement authority is the Ayer Fire Department, as specified in Massachusetts State Law (527 CMR 9.00).

17) medical, testing and research laboratories that dispose of biological or chemical wastes, except such laboratories associated with a medical group or office consisting of less than three (3) doctors.

18) car washes, except when connected on public water and sewer

19) trucking or bus terminals, motor vehicle gasoline sales, heliports and airports.

20) Any floor drainage systems in existing facilities, in industrial or commercial process areas or hazardous material and/or hazardous waste storage areas, which discharge to the ground without a DEP permit or authorization. Any existing facility with such a drainage system shall be required to either seal the floor drain (in accordance with the state plumbing code, 248 CMR 2.00), connect the drain to a municipal sewer system (with all appropriate permits and pre-treatment), or connect the drain to a holding tank meeting the requirements of all appropriate DEP regulations and policies.

#### Uses and Activities Requiring a Special Permit

The following uses and activities are permitted only upon the issuance of a Special Permit by the Special Permit Granting Authority (SPGA) under such conditions as they may require:

1) enlargement or alteration of existing uses that do not conform to the Aquifer Protection District;

2) those activities that involve the handling of toxic or hazardous materials in quantities greater than those associated with normal household use, unless previously permitted to do so, and the activity is in full compliance with state regulations at the time of the passage of this by-law, permitted in the underlying

zoning (except as prohibited under Section f. Use Regulations –prohibited uses). Such activities shall require a special permit to prevent contamination of groundwater;

3) the application of pesticides, including herbicide, insecticides, fungicides, and rodenticides, for non-domestic or non-agricultural uses in accordance with state and federal standards. The special permit shall be granted if such standards are met. If applicable, the applicant should provide documentation of compliance with a Yearly Operation Plan (YOP) for vegetation management operations under 333 CMR 11.00 or a Department of Food and Agriculture approved Pesticide Management Plan or Integrated Pest Management (IPM) program under 333 CMR 12.00;

4) the application of fertilizers for non-domestic or non-agricultural uses. Such applications shall be made in a manner so as to minimize adverse impacts on groundwater due to nutrient transport, deposition, and sedimentation;

5) the construction of dams or other water control devices, ponds, pools or other changes in water bodies or courses, created for swimming, fishing or other recreational uses, agricultural uses, or drainage improvements. Such activities shall not adversely affect water quality or quantity;

6) any use that will render impervious more than 15% or 2,500 square feet of any lot, whichever is greater. A system for groundwater recharge must be provided which does not degrade groundwater quality. For non-residential uses, recharge shall be by storm water infiltration basins or similar system covered with natural vegetation, and dry wells shall be used only where other methods are infeasible. For all non-residential uses, all such basins and wells shall be preceded by oil, grease, and sedimentation traps to facilitate removal of contamination. Any and all recharge areas shall be permanently maintained in full working order by the owner.

**g. Procedures for Issuance Special Permit**

1) The Special Permit Granting Authority (SPGA) under this bylaw shall be the Board of Health. Such special permit shall be granted if the SPGA determines, with the consent of the Conservation Commission, and the Town Engineer/Department of Public Works and Planning Board that the intent of this bylaw, as well as its specific criteria are met. The SPGA shall not grant a special permit under this section unless the petitioner's application materials include, in the SPGA's opinion, sufficiently detailed, definite and credible information to support positive findings in relation to the standards given in this section.

2) The applicant shall file 6 copies of a site plan and attachments. The site plan shall be drawn at a proper scale as determined by the SPGA and be stamped by a professional engineer. All additional submittals shall be prepared by qualified professionals. The site plan and its attachments shall at a minimum include the following information where pertinent:

(a) a complete list of chemicals, pesticides, herbicides, fertilizers, fuels, and other potentially hazardous materials to be used or stored on the premises in quantities greater than those associated with normal household use;

(b) for those activities using or storing such hazardous materials, a hazardous

materials management plan shall be prepared and filed with the Hazardous Materials Coordinator, Fire Chief, and Board of Health. The plan shall include:

- provisions to protect against the discharge of hazardous materials or wastes to the environment due to spillage, accidental damage, corrosion, leakage, or vandalism, including spill containment and cleanup procedures;
- provisions for indoor, secured storage of hazardous materials and wastes with impervious floor surfaces;
- evidence of compliance with the Regulations of the Massachusetts Hazardous Waste, Management Act 310 CMR 30, including obtaining an EPA identification number from the Massachusetts Department of Environmental Protection.

- (c) proposed down-gradient location(s) for groundwater monitoring well(s), should the SPGA deem the activity a potential groundwater threat.

3) Upon receipt of the special permit application, the SPGA shall transmit one copy to the Planning Board, the Conservation Commission, and Town Engineer/Department of Public Works for their written recommendations. Failure to respond in writing within 35 days of receipt by the Board shall indicate approval or no desire to comment by said agency. The necessary number of copies of the application shall be furnished by the applicant. One (1) copy of the application materials must be transmitted to and retained by the Town Clerk for viewing by the public during office hours.

4) The SPGA may grant the required special permit only upon finding that the proposed use meets the following standards, those specified in Section f. of this bylaw, and any regulations adopted by the SPGA. The proposed use must:

- (a) in no way, during construction or thereafter, adversely affect the existing, or potential quality of quantity of water that is available in the Aquifer Protection District;
- (b) and be designed to avoid substantial disturbance of the soils, topography, drainage, vegetation, and other water-related natural characteristics of the site to be developed.
- (c) The SPGA may adopt regulations to govern design features of projects. Such regulations shall be consistent with subdivision regulations adopted by the municipality.

5) The SPGA shall hold a hearing, in conformity with the provision of MGL Chapter 40A, Section 9, within 65 days after the filing of the application and after the review by the Town Boards, Departments and Commissions. Notice of the public hearing, shall be given by publication and posting and by first-class mailings to "parties of interest" as defined in MGL Chapter 40A Sec. 11. The decision of the SPGA and any extension, modification, or renewal thereof shall be filed with the SPGA and Town Clerk within 90 days following the closing of the public hearing. Failure of the SPGA to act within 90 days shall be deemed as a granting of the permit. However, no work shall commence until a certification is recorded as required by said Section k.

6) Written notice of any violations of this Aquifer Protection District bylaw shall be given by the Board of Health to the responsible person as soon as possible after detection of a violation or a continuing violation. Notice to the assessed owner of the property shall be deemed notice to the responsible person. Such notice shall specify the requirement or

restriction violated and the nature of the violation, and may also identify the actions necessary to remove or remedy the violations and preventive measures required for avoiding, future violations and a schedule of compliance. A copy of such notice shall be submitted to the Building Inspector, the Board of Health, Conservation Commission and Town Engineer/Department of Public Works. The cost of containment, clean up or other action of compliance shall be borne by the owner and operator of the premises.

**h. Special Requirements and Restrictions**

The following special requirements and restrictions shall apply to the Aquifer Protection District:

- 1) access road(s) to extractive operation sites shall include a gate or other secure mechanism to restrict unauthorized public access to the site.
- 2) the use of sodium chloride for ice control shall be minimized consistent with the public highway safety requirements.
- 3) no surface or groundwater withdrawal of more than 25,000 gallons per day will be permitted without the approval of the Town of Ayer Conservation Commission, Board of Health, Board of Selectmen, and Superintendent of Public Works. Withdrawals exceeding 100,000 gallons per day will be required to obtain approval from the Commonwealth of Massachusetts Department of Environmental Protection. The proponent requesting permission to withdraw more than 25,000 gallons per day must reimburse the Town of Ayer for consultants and/or engineers and/or any services deemed necessary by any of the Town's Boards or Agencies to determine if the usage would be detrimental to the water quality and quantity.
- 4) all new residential subdivision housing projects, new industrial and commercial development within the Zone II must be serviced by the municipal sewage systems. In residential A-1 not served by the municipal sewer system, a single family dwelling unit may be constructed on a lot within the district and within a residential zone provided that said lot within has a minimum lot size of 20,000 sq. ft. for a single family dwelling unit and an additional 20,000 sq. ft. for each conversion dwelling unit. If said lot is connected to municipal sewage, then the original zoning requirements may be followed. The Zoning Board of Appeals (ZBA) may grant a Special Permit within Zone II area for the particular area . In an area not served by municipal sewage, an existing and conforming business or industry may continue to operate and expand until such time as municipal sewage is available at their site, provided that the Town of Ayer Board of Health and the Nashoba Associated Boards of Health regulations are met for on-site sanitary sewage disposal.
- 5) At such time as municipal sewage is brought to within 400 feet of an existing business or industry, that business or industry must connect to the municipal sewage system with a two (2) year period from the time the Town accepts the sewage system.

**i. Non-conforming Use**

Non-conforming uses which were lawfully existing, begun or in receipt of a building or special permit, prior to the first publication of notice of public hearing for this Bylaw may be continued. Such non-conforming uses may be changed, extended or altered, as specified in M.G.L. c. 40a, s 6 provided that there is a finding by the ZBA that such change, extension or alteration does not increase the danger of groundwater pollution from such use and that such change, extension or alteration shall not be substantially more detrimental than the existing non-conforming use.

**j. Enforcement**

The enforcement agent shall be the Board of Health. For situations that require remedial action to prevent adverse impact to the water resources, within the Aquifer protection district, the Town of Ayer, the Building Inspector, the Board of Health, or any of their agents may order the owner or operator of the premises to remedy the violation. If said owner and/or operator does not comply with said order, the Town of Ayer, the Building Inspector, the Board of Health, or any of their agents, if authorized to enter upon such premises under the terms of the special permit or otherwise, may act to remedy the violation. The remediation cost shall be the responsibility of the owner and operator of the premises.

**k. Violation Fee Schedule**

- 1) If a property owner is found to be in violation of any part(s) of this Bylaw, he/she will receive a cease and desist order from the enforcement officer delineating the violations. The property owner will be given twenty-one (21) days from the time the notice is served in which to comply with this cease and desist order.
- 2) If, after twenty-one (21) days the property owner does not comply with the cease and desist order, a fine of Three Hundred Dollars (\$300.00) per day will be assessed upon the owner until such time as the violation has been corrected.

**l. Reciprocity**

Any Zone II delineation and/or Interim Wellhead Protection Zone which has been approved by the Massachusetts Department of Environmental Protection Water Supply Division under MGL Chapter 40A for municipal wells serving abutting communities which are located in part or in whole within the Town of Ayer's jurisdiction will be protected under this Bylaw with the same restrictions as the Town of Ayer's protection zones, provided, that the abutting town adopts a Water Protection District Bylaw which will include as part of it the Town of Ayer's DEP approved Zone II and/or Interim Wellhead Protection Zone, which is located in part or in whole within the jurisdiction of the abutting community, take any action thereon or in relation thereto.

**m. Severability**

A determination that any portion of provision of this overlay protection district is invalid shall not invalidate any other portion or provision thereof, nor shall it invalidate any special permit previously issued thereunder.

## **ARTICLE 4. USE REGULATIONS**

### **4.1. Regulation of Agriculture, Floriculture and Horticulture and Permaculture.**

Notwithstanding any other provisions of this Zoning By-Law agriculture, floriculture, and horticulture and permaculture may be pursued on any tract of land in excess of five acres in any zoning district. In determining whether a parcel or tract of land is in excess of five acres in area, land divided by a public or private way or a waterway shall be construed as being one parcel.

### **4.2. Use of Land or Structures for Religious and Educational Purposes.**

Notwithstanding any other provision of this Zoning Bylaw, the use of land or structures for religious or educational purposes on land owned or leased by the Commonwealth of Massachusetts or any of its agencies; by religious sects or by non-profit educational corporations is permitted in any zoning district. However, the provisions of the Town of Ayer Zoning Bylaw concerning the bulk and height of such structures, yard sizes, lot area, set-backs, open space, parking and building coverage shall be applicable.

### **4.3 Nonconforming Uses, Structures and Lots.**

#### **4.3.1 Nonconformity by Initial Enactment or Amendment.**

The provisions of this section apply to actions in connection with nonconforming uses, structures, and lots as created by the initial enactment of this Bylaw or by any subsequent amendment thereto.

#### **4.3.2 Extension and Alteration.**

Except as hereinafter provided, this Zoning Bylaw shall not apply to structures or uses lawfully in existence or lawfully begun, or to a building or special permit issued before the first publication of notice of the public hearing on this Bylaw, but shall apply to any change or substantial extension of such use, to a building or special permit issued after the first notice of said public hearing, to any reconstruction, extension or structural change of such structure, and to any alteration of a structure begun after the first notice of said public hearing to provide for its use for a substantially different purpose where alteration, reconstruction, extension or structural change to a single or two-family residential structures does not increase the nonconforming nature of said structures.

Application for Finds, as allowed in this chapter, shall follow the same procedural requirements as Special Permit applications, however, a Finding shall be granted upon the vote of a simple majority of the Zoning Board of Appeals.

#### **4.3.3 Pre-existing Nonconforming structures or uses may be changed. extended or altered.**

A Pre-existing Nonconforming Structure or Use may be changed, extended or altered:

- a. as-of-right when said change, extension or alteration conforms in all respects to the present zoning requirements.
- b. as-of-right when said change or alteration is limited to rebuilding a single or two-family home destroyed by fire or other natural disaster within two years of the disaster.
- c. as-of-right when said change or alteration is limited to rebuilding any other building not more than fifty percent destroyed by fire or other natural disaster when the change is limited to rebuilding or replacing the structure within the pre-existing foot print and height of the existing structure or within the area and height that conforms to all dimensional requirements and all when the change is limited to rebuilding or replacing the structure within the pre-existing footprint and height of the existing structure or within the area or height that conforms to all dimensional requirements and all construction occurs within two years of the disaster.
- d. with a Finding from the Zoning Board of Appeals that such change, extension, or alteration will not be substantially more detrimental to the neighborhood than the existing nonconforming structure and/or use when said change, extension or alteration:
  - 1) will not extend any closer to any front, side or rear property boundary than the current zoning allows or existing structure already extends and will not create any new violation of other zoning provisions; and
  - 2) does not involve a sign (sign standards are in Article 8 Signs and Billboards on page 100).
  - 3) with a Variance when said change, extension or alteration will create any new violation of the present zoning requirements.
  - 4) with a combination of a Finding and Variance when applicable.

4.3.4 A Conforming Use on a Pre-existing nonconforming Lot or in a Pre-existing Nonconforming Structure may be changed, extended or altered:

- a. as-of-right to a conforming use which meets all the dimensional and density provisions of the current zoning.
- b. with a Finding from the Zoning Board of Appeals that such change, extension, or alteration will not be substantially more detrimental to the neighborhood than the existing conforming use when said change, extension or alteration is to a conforming use which requires the same or less minimum lot area, minimum lot width and frontage, minimum lot depth, setbacks, and parking than is required for the present use (and lot does not fully conform to the present zoning requirements for the proposed use) .
- c. with a Variance to a conforming use which requires a larger

minimum lot area, minimum lot width or frontage or minimum lot depth that is required of the present use.

- d. with a combination of a Finding and Variance when applicable.

#### 4.3.5 Single Lot Exemption for Single and Two-Family Use

Any increase in area, frontage, width, yard or depth requirements of the Zoning bylaw shall not apply to a vacant lot for single and two-family residential use, which:

- a. has at least 5,000 square feet of area and fifty feet of frontage;
- b. conformed to existing zoning requirements when the lot was legally created, if any;
- c. is in separate ownership from adjoining lots prior to the town meeting vote which made the lot nonconforming, and has maintained its separate identity.

#### 4.3.6 Abandonment

Any nonconforming use which has been abandoned or not used for a continuous period of two (2) years or more shall not be used again except for a conforming use. For purposes of this section, the abandonment period shall not be broken by temporary occupancy except when such temporary occupancy is over a period of sixty (60) or more consecutive days.

#### 4.3.7 Change, Extension or Alteration of a Pre-Existing Nonconforming Lot.

A pre-existing nonconforming lot may only be changed, extended or altered as a matter-of-right provided:

- a. such change, extension or alteration brings the lot into total conformance with the Zoning requirements in existence at the time of said change, extension or alteration, or
- b. such change, extension or alteration only adds to the pre-existing nonconforming lot and does not delete anything (area, frontage, width, depth) from the original lot, or
- c. such change, extension or alteration deducts land from the pre-existing nonconforming lot but in such a manner that such a reduction does not reduce the lot's area, frontage, width, depth, building setbacks, percent of building coverage or percent of open space below that which already exists on the pre-existing nonconforming lot or that which is required by the current Zoning Bylaw, whichever is the lesser.

#### 4.4 Table of Use Regulations

No land or structures shall be used for any use not set forth in Table 4.4 and denoted under applicable district either with the letters “SPZ” or the letter “P” or “SPB” unless otherwise expressly authorized elsewhere in the By-law or by the General Laws.

Table 1 Principal Use↓	Zoning Districts→								
	A-1	A-2	GR	DB	GB	LI	HI	HCS	
<b>KEY TO TABLE:</b> <i>P = Permitted Use; SPZ = Special Permit by Zoning Board; SPB = Special Permit by Board of Selectmen; NP = Not Permitted</i>									
<b>1.0 Residential Uses</b>									
1.1 Detached single family dwellings	P	P	P	P	SPZ	NP	NP	NP	
1.2 Accommodating up to four roomers/boarders not members of the resident family	P	P	P	P	P	NP	NP	NP	
1.3 Conversion of a single family dwelling to a two family dwelling	SPZ	P	P	P	P	NP	NP	NP	
1.4 Tourist Homes and Bed and Breakfast establishments	SPZ	SPZ	P	SPZ	P	NP	NP	NP	
1.5 Home occupations  <b>**note:</b> No external evidence other than an announcement sign and any parking required by Article 6, Off Street Parking on page 73, and having acceptable probable effects on the existing uses in terms of noise, traffic or related impacts	SPZ	SPZ	SPZ	SPZ	SPZ	NP	NP	NP	
1.6 New two family dwellings	NP	NP	P	NP	SPZ	NP	NP	NP	
1.7 Multifamily dwellings, townhouses	NP	NP	P	NP	SPZ	NP	NP	NP	
1.8 Uses accessory to uses allowed by special permit  <b>**note:</b> Rear of the lot, 20 feet from any main building on an adjoining residential lot with no display of goods visible from the street	SPZ	SPZ	SPZ	P	NP	NP	NP	NP	
1.9 Uses accessory to as of right uses	P	P	P	P	P	NP	NP	NP	
1.10 Apartments over office/commercial space	NP	NP	NP	P	P	NP	NP	NP	
<b>2.0 Public / Institutional Uses</b>									

2.1	Buildings for public/semi-public educational uses	P	P	P	P	P	P	P	NP
2.2	Buildings for religious uses	P	P	P	P	P	P	P	NP
2.3	Buildings for governmental uses	SPZ	SPZ	SPZ	P	P	P	P	NP
2.4	Public Safety Facility	P	P	P	P	P	P	P	NP
2.5	Medical Institutions	SPZ	SPZ	SPZ	P	P	P	P	NP
2.6	Public Utility without service yards	SPZ	SPZ	SPZ	P	P	P	P	NP
2.7	Public Utility buildings with service yards	NP	NP	NP	NP	P	P	P	NP
2.8	Extensions of existing cemeteries	P	P	P	SPZ	SPZ	NP	NP	NP
2.9	New cemetery	P	P	P	SPZ	SPZ	NP	NP	NP
2.10	Apartments over office/commercial space	P	P	P	P	P	P	P	NP
2.11	Rest homes or nursing homes	NP	SPZ	SPZ	SPZ	P	NP	NP	P
2.12	Private clubs, lodges or other social, recreation or civic group-assembly activity not conducted as a business	NP	NP	NP	P	P	NP	NP	NP
2.13	Hospital	NP	NP	NP	NP	NP	NP	NP	P
2.14	Emergency Room	NP	NP	NP	NP	NP	NP	NP	P
2.15	Psychiatric mental health unit only for patients originating from the service area for a community acute care/surgical hospital	NP	NP	NP	NP	NP	NP	NP	P
2.16	Medical research laboratory	NP	NP	NP	NP	NP	NP	NP	P
2.17	Transitional care unit	NP	NP	NP	NP	NP	NP	NP	P
2.18	Outpatient clinic	NP	NP	NP	NP	NP	NP	NP	P
2.19	Medical/dental/psychiatric clinic	NP	NP	NP	NP	NP	NP	NP	P
2.20	Rehabilitative service clinic	NP	NP	NP	NP	NP	NP	NP	P
2.21	Outpatient facilities	NP	NP	NP	NP	NP	NP	NP	P
2.22	Medical/dental/psychiatric office building	NP	NP	NP	NP	NP	NP	NP	P
2.23	Childcare facility	NP	NP	NP	NP	NP	NP	NP	P
2.24	Ancillary and supporting parking	NP	NP	NP	NP	NP	NP	NP	P
2.25	Ancillary and supporting pharmacy	NP	NP	NP	NP	NP	NP	NP	P
2.26	Ancillary and supporting dwelling units for resident physicians , employees or medical staff and accompanying spouses and children (up to a maximum of six units)	NP	NP	NP	NP	NP	NP	NP	P
2.27	Ancillary and supporting health& fitness facility	NP	NP	NP	NP	NP	NP	NP	P
2.28	Ancillary and supporting trailers used for temporary (not to exceed 2 years) storage of medical equipment & supplies	NP	NP	NP	NP	NP	NP	NP	P

2.29	Ancillary and supporting storage of mobile medical vehicles	NP	P						
2.30	Ancillary and supporting temporary (not to exceed 2 years) modular office space	NP	P						
2.31	Ancillary and supporting swimming pool	NP	P						
2.32	Ancillary and supporting newsstand or cafeteria (food service)	NP	P						
2.33	Ancillary and supporting training/educational center for the public	NP	P						
2.34	Ancillary and supporting helipad	NP	P						
<b>3.0 Agricultural / Outdoor Uses</b>									
3.1	Farming, horticulture, forestry nurseries, greenhouses, and sale of on premise raised produce	P	P	P	P	P	P	P	NP
3.2	Domesticated animal keeping for resident's uses with related structures at least 20 feet from rear and side lot lines	P	P	P	NP	NP	NP	NP	NP
3.3	Golf courses, ski, camping or swimming facilities with incidental sales for patrons	SPZ	SPZ	SPZ	SPZ	P	P	NP	NP
3.4	Commercial removal of sod, stone, loam or other earth products for the elsewhere within the town	SPB	SPB	SPB	SPB	SPB	SPB	P	NP
<b>4.0 Commercial Uses</b>									
4.1	Hotels, motels and inns	SPZ	SPZ	SPZ	P	P	P	P	NP
4.2	Funeral homes and mortuaries	NP	NP	NP	SPZ	P	NP	NP	NP
4.3	Retail stores, showrooms, bakeries	NP	NP	NP	P	P	NP	NP	NP
4.4	Retail consumer service establishments such as but not limited to barber shops, appliance repair shops, dry cleaners	NP	NP	NP	P	P	NP	NP	NP
4.5	Restaurants, cafes, taverns and other food and beverage establishments	NP	NP	NP	P	P	P	NP	NP
4.6	Workshops for custom or on-premise sales goods	NP	NP	NP	P	P	P	NP	NP
4.7	Offices, office buildings	NP	NP	NP	P	P	P	NP	NP
4.8	Banks and other financial institutions	NP	NP	NP	P	P	P	NP	NP
4.9	Theaters, clubs, and other places of indoor commercial amusement and assembly	NP	NP	NP	P	P	P	NP	NP
4.10	Commercial or public parking areas	NP	NP	NP	P	P	SPZ	SPZ	NP
4.11	Auto sales and service establishments, public garages, filling stations	NP	NP	NP	SPZ	P	NP	NP	NP
4.12	Wholesaling and distribution	NP	NP	NP	NP	SPZ	P	P	NP
4.13	Uses accessory to permitted uses	NP	NP	NP	P	P	P	P	NP

4.14	Retail stores, retail service establishments, restaurants, etc. primarily for employees and customers of industrial firms	NP	NP	NP	NP	NP	P	P	NP
4.15	Retail sale of projects primarily wholesaled at the site	NP	NP	NP	NP	NP	P	P	NP
4.16	Drive In/Drive Through Accessory	NP	NP	NP	SPZ	SPZ	NP	NP	NP
4.17	Boarding of animals for profit	NP	P	NP	NP	P	NP	NP	NP
5.0	Industrial Uses								
5.1	Research, experimental and testing laboratories and related light manufacturing	NP	NP	NP	SPZ	SPZ	P	P	NP
5.2	Enclosed manufacturing, processing, assembly and fabrication	NP	NP	NP	NP	SPZ	P	P	NP
5.3	Warehousing and interior storage	NP	NP	NP	NP	SPZ	P	P	NP
5.4	Exterior storage, screened and without junk storage	NP	NP	NP	NP	NP	P	P	NP
5.5	Uses accessory to permitted uses	NP	NP	NP	NP	NP	P	P	NP
6.0	SIGNS								
	** note: Please see Article 8 on page 100 for specific dimensional and usage regulations	P	P	P	P	P	P	P	NP

## **ARTICLE 5. DIMENSIONAL REGULATIONS**

Approved by Attorney General December 10, 1999.

### **5.1 Applicability**

The as-of-right and specially permitted uses listed in Article 4 Use Regulations, Section 4.4 on page 65 may be established on lots with frontage on approved public or private ways\* subject to the dimensional requirements summarized in Article 5, Section 5.12 on page 72 and to the following requirements for minimum lot area, lot area per principal structure or dwelling unit; front, side and rear yard requirements, and structure height limits; along with any conditions placed upon a special permit or variance by the Special Permit Granting Authority; and the requirements or exemptions presented below and in other related provisions of this bylaw.

### **5.2 Frontage Requirement on Developed Streets**

No building in any district need be located or placed further from the exterior line of any street or public way than the average distance from such street or way line of the principal buildings located on the lots adjacent thereto on either side. In determining such average, a vacant side lot having a frontage of fifty (50) feet or more shall be considered as though occupied by a building having the required setback, and a lot separated from the lot in question only by a vacant lot having frontage of less than fifty (50) feet shall be deemed an adjacent lot.

### **5.3 More Than One Building on a Parcel**

Every building shall have frontage on a way, public or private, except that with planning board approval it may use a clear unobstructed passageway at least twenty (20) feet wide over the lot on which it is located, to said way. If a building is located in the rear of another building located on the same lot, it shall meet the side and rear yard requirements of the district in which it is located and the open space between such buildings shall be at least fifty (50) percent greater than the rear yard requirement for the district.

The provisions of the second sentence of the preceding paragraph are not to apply within the Health Care Service District. In the Health Care Services District, minimum lot frontage and yard requirements are to apply to the perimeter of Health Care Services District unless the fee owner elects to divide or subdivide land pursuant to the Subdivision Control Law, M.G.L. c.41 ss81K et. seq. Following any such division or subdivision, such minimum lot frontage and yard requirements shall apply to all property lines created thereby.

In the Health Care Services District, the minimum lot area, maximum building coverage percentage, maximum floor area ratio and minimum open space percentage are to apply to the entire District only in the aggregate, regardless of whether or not any such division or subdivision occurs from time to time.

### **5.4 Corner Lots**

On corner lots, the yard fronting on each street shall meet the front yard requirements of that street. Provided that the lot has frontage on a way shown on a plan previously approved under the

subdivision control law or on a way which existed when the subdivision control law became effective and which in the opinion of the Planning Board has sufficient width, suitable grades and adequate construction to provide for vehicular traffic and for the installation of municipal services.

### **5.5 Cornices and Eaves**

Nothing herein shall prevent the projection of cornices or eaves not exceeding eighteen (18) inches in width, or of uncovered steps, unroofed porches, or window sills into a required yard or other open space.

### **5.6 Maintenance of Minimum Required Dimensions**

Lots on which buildings are located in any district shall not be reduced or changed in size or shape so the building or lot fail to comply with the lot area, frontage, setback or yard provisions of this by-law. This provision shall not apply, however, when a portion of a lot is taken or conveyed for a public purpose. Yards, courts, or other open space required for a building by this by-law shall not, during the life of such building, be occupied or counted as an open space for another building.

### **5.7 Division of Developed Lots**

Any lot on which more than one house existed at the time of the adoption of this by-law may be divided and sold to separate owners and used with a minimum nonconformance. For each foot that such lot is less than seventy-five (75) feet wide, one (1) foot may be deducted from the sum of the width of the required two (2) side yards, provided that the buildable width need not be reduced to less than thirty (30) feet and further provided that no side yard shall be less than six (6) feet.

### **5.8 Location of Accessory Structures**

- a. The yard provisions for principal structures shall apply to accessory structures, both detached or attached to the principal structure, when used for human occupancy.
- b. A detached accessory structure of one (1) story shall not be closer to the principal structure than ten (10) feet. A detached accessory structure of two (2) stories or more shall not be closer to the principal structure than fifteen (15) feet.
- c. Accessory structure or structures shall not occupy more than twenty-five percent (25%) of the required rear or side yard areas.
- d. Accessory Buildings shall be no nearer than five (5) feet to any side or rear lot line.

### **5.9 Floor Area**

All dwelling units except single family houses shall provide a minimum habitable floor area as follows:

- a. Seven hundred and fifty (750) square feet for a dwelling unit on one (1) floor.

- b. Five hundred (500) square feet on the first floor of a dwelling unit of one and one-half (1 1/2) floors.
- c. Four hundred (400) square feet on the first floor of a dwelling unit on two (2) floors.

**5.10 Corner Clearance**

Between the property lines of intersecting streets and a line joining points on such lines twenty (20) feet distant from their point of intersection (or in the case of a rounded corner, the point of intersection of their tangents) no structure may be erected and no vegetation other than shade trees may be maintained between two (2) and eight (8) feet above the plane through their curb grades.

**5.11 Gasoline Filling and/or Service Stations**

Notwithstanding other provisions of this Article, any gasoline service station to be constructed or established must conform to the following minimum requirements as to setback, sidelines, building size, pump island area, and entrance to and egress from the street or way on which said station is situated.

Yard, Front:	75 feet
Pump set-back from street line or public way:	35 feet
Set-back of building from nearest pump island:	40 feet
Space between pump islands if more than one island:	30 feet
Minimum number means of entrance and egress from way (one entrance and one egress):	2
Minimum distance from corner (intersection of extended street lines) to entrance and egress curb cuts:	50 feet
Minimum frontage:	100 feet
Minimum size of service station building	1200 sq.ft.
Minimum size of filling station building:	750 sq. ft.
Dimension of rear yard:	30 feet
Minimum side of building:	30 feet
Minimum width per curb cut:	25 feet

**5.12 Regulations for Lot Area, Yards Set back, Building and Structure Heights**

District & Minimum Lot Area	Minimum Lot Frontage	Minimum Side	Yard Fr.	Dimension Rear	Stories Ft.	Building Height	% Building Coverage	Floor Area Ratio (FAR)	% Open Space
<b>Residence A-1</b> 40,000 s.f.	150 ft	15ft	35ft	30ft	2 ½	35ft	15%	None	80%
<b>Residence A-2</b> 12,000s.f. (1 family) 24,000s.f. (conversion of one family to two-family)	100ft	15ft	20ft	25ft	2 ½	35ft	25%	None	60%
<b>General Residence (GR)</b> 10,000s.f. plus 3,000 s.f. for each additional dwelling unit	100ft	10ft	20ft	25ft	2 ½	35ft	30%	None	50%
<b>Downtown Business (DB)</b> None 10,000s.f. for residential use	None	None Except 25ft where abuts a Residential District	None	None	3	40ft	75%	2.25	5%
<b>General Business (GB)</b> 15,000s.f.	100ft	25 ft except 35ft where abuts a Residential District	30ft	20ft	3	35ft	60%	1.25	20%
<b>Light Industry (L-I)</b> 120,000s.f.	100ft	25ft Except 50ft where abutting a Res. Dist	25ft	30ft except for buildings thru block or to a RR siding	3	40ft	50%	1.25	30%
<b>Heavy Industry (H-I)</b> 30,000 s.f.	150ft	25ft Except 50ft where abutting a Res. Dist.	25ft	30ft except for buildings thru block or to a RR siding	3	40ft	50%	1.00	20%
<b>Health Care Services District (HCS)</b> 40,000 s.f	100'	20'*	30'	20'*	6	75'***	60%	0.45	40%

\*For each additional story added above the first story of the building, an additional rear and side yard setback distance will be added (as set forth in this table) to existing rear and side yard setbacks and the total will then be applied to all stories of this building

\*\*\*Park structures within the District will not exceed thirty feet (30') in height.

**ARTICLE 6. OFF STREET PARKING**

**6.1 Off-Street Parking Regulations**

For all zoning districts, off-street parking spaces shall be provided for every new structure, the enlargement of an existing structure, and new or expanded uses, except as noted below, in accordance with the TABLE OF OFF-STREET PARKING REGULATIONS and other requirements contained herein.

For all zoning districts, except the Downtown Business (DB) District, in cases of a change in use where the existing use (or in cases of vacancy, the next previous use) did not provide for the number of off-street parking spaces required under this Bylaw, then the proposed use shall only have to provide an additional number of off-street parking spaces equal to the increase, if any, between the number required under this Bylaw for the existing use and the number required for the proposed use.

For Downtown Business (DB) Districts only, no additional off-street parking is required for the following:

- a. Continued use or reuse of existing buildings, as long as that use or reuse does not increase the usable floor area within the building
- b. The replacement of an amount of floor space equal to that in existence at the time of enactment of this Bylaw.
- c. The addition of a second floor to one-story buildings existing in the DB District at the time of the enactment of this Bylaw, however, the addition of a third or more floor or an expanded building footprint shall be subject to the parking requirements.

**Table 1  
Off-Street Parking Regulations**

The number of off-street parking spaces required to serve added floor space in the Downtown Business (DB) District is shown in parenthesis. Where no parenthesized number appears, the parking requirement for added floor space in the DB District is the same as that which applies in all other zoning districts. Parking shall be provided to serve the parking needs which are generated by a particular use or structure. When there is more than one primary use of a structure, the parking requirements for each principal use must be met unless one use is incidental to the principal use of the structure	
Dwelling, one-, two- and three-family units and townhouses	Two per unit (1.0 per unit)
Dwelling, multi-family	Two per dwelling unit, except housing for the elderly, in which case, it shall be one for each two dwelling units (1.0 per unit)
Theater, stadium, auditorium, halls, undertaking establishments, church or other similar place of public assembly, with seating facilities	One for each four seats of total seating capacity (one for each six seats)
Clubs, restaurants, taverns, And other eating places	Two for each four seats of total seating capacity, plus one per each 300 square feet of gross kitchen area (one for each four seats of total seating capacity, plus one per each 500 square feet of gross kitchen area)

Stores and shops for the conducting of retail businesses; Commercial, retail and personal service establishments	One per each 200 square feet of gross floor area (1.0 per 500 square feet)
Miscellaneous professional and business offices, including banks, insurance and real estate establishments	One per each 400 square feet of gross floor area (1.0 per 600 square feet)
Wholesale establishment	One per each 1,000 square feet gross floor space
Boarding house, lodging house, inn, hotel or motel	One space for each room
Home occupation	One space for each non-residential employee and one additional space for the home occupation
Manufacturing or industrial establishments	One per each 600 square feet gross floor space
Community facility (City building, recreation, etc.)	One per each 400 square feet gross floor space
Libraries and museums	One per each 300 square feet gross floor space
Public utility	(1) One for each 300 square feet of gross floor area devoted to office use (2) One for each 800 square feet of gross floor area per other use
Hospital	2 spaces per bed*
Psychiatric mental health unit	2 spaces per bed
Transitional Care unit	1 space per each 200 square feet of gross floor area
Ancillary and supporting pharmacy	1 space per each 200 square feet of gross floor area
Outpatient clinic	1 space per each 200 square feet of gross floor area
Rehabilitative service clinic	1 space per each 200 square feet of gross floor area
Ancillary and supporting health and fitness facility	1 space for each 250 square feet of gross floor area
Medical/dental psychiatric office building	1 space for each 200 square feet of gross floor area
Nursing Home	1 space per 2 beds
Childcare facility	1 space per every 3 clients
Ancillary and supporting parking	None
Accessory dwelling units for resident employees	2 spaces per unit
Ancillary and supporting trailers to be used for storage of medical equipment and supplies	2 spaces for each trailer
Ancillary and supporting storage of mobile medical vehicles	None
Ancillary and supporting training/educational center for public	4 spaces per classroom plus 1 space per each 4 seats
Ancillary and supporting maintenance of vehicles and equipment	None
Ancillary and supporting helipad	None
Ancillary and supporting storage	None
Any use permitted by this Bylaw not interpreted to be covered by this schedule	Closest similar use as shall be determined by the Building Inspector
Mixed use	Sum of various uses computed separately

\* The following uses will be included under Hospital for the purposes of this section: emergency room, medical research laboratory, medical diagnostics, outpatient facilities, ancillary and supporting modular office space, ancillary and supporting swimming pool, medical/dental/psychiatric clinic and ancillary and supporting newsstand or cafeteria (foods services).

## 6.2 Application of Parking Requirements

- a. Permits for the erection of new structures, for the enlargement of existing structures, or for the development of a land use shall require plans showing the specific location and size of the off-street parking required under this Zoning Bylaw, and the means of access to such space from Public Streets or Private Ways. In the event of an existing structure these requirements shall apply only to the area added to the structure.
- b. Buildings and land uses in existence on the effective date of this bylaw are not subject to these parking requirements, but any parking facilities then serving or thereafter established to service such buildings or uses may not be reduced below these standards.
- c. When an individual building of less than 5,000 sq. ft. or a parcel of land is used by two or more principal uses that fall into different classes of use, the parking facilities required shall be the sum of the requirements for the separate uses.
- d. For buildings of over 5,000 sq. ft. accommodating several distinct principal uses (such as those in a small shopping center) the total amount of required parking may be reduced by 5% for each additional 5,000 sq. ft. of floor area. Thus a 5,000 sq. ft. retail building would require 25 spaces (at one per 200 sq. ft.) but a mixed uses 10,000 sq. ft. building would require only 45 spaces.
- e. Total parking requirements for principal uses within 500 feet of one another may be reduced to the extent that the applicants can demonstrate that the hours of activity are complementary and that customers or employees of each use will continue to have access to the total amount of available space. (For example a motion picture theater operating primarily in the evening and on weekends could jointly use parking spaces with a bank operating during the week and on Saturday mornings.)

## 6.3 Location and Layout of Parking Facilities

- a. Required off-street parking facilities shall be provided on the same lot as the principal use they are required to serve.
- b. Parking required for two or more buildings or uses may be provided in combined facilities where it is evident that such facilities will continue to be available for the several buildings or uses.
- c. Each required car space shall not be less than ten (10) feet in width and twenty (20) feet in length, exclusive of drives and maneuvering space, and the total area of any parking facility for more than five (5) cars shall average at least three hundred and fifty (350) square feet per car. No driveways or curb cuts shall exceed twenty-five (25) feet in width.
- d. An open-air parking space shall be at least ten (10) feet from any building, and shall be at least eight (8) feet from any property line.
- e. Garages shall conform to the prescribed minimum setback distances of the zoning area in which the lot is located.

f. Parking areas shall not be used for automobile sales, gasoline sales, dead storage, repair work, dismantling or servicing of any kind, and lighting that is provided shall be installed in a manner that will prevent direct light shining onto any street or adjacent property.

g. In the Health Care Services District, notwithstanding any other provision of this bylaw, required off-street parking facilities may be located on any lot within the District, provided that, in the event that of any division or subdivision occurs within the District resulting in the creation of new lots, each lot in the District shall either (i) accommodate the required parking facilities associated with uses on that lot, or (ii) have the benefit of perpetual easement rights to utilize such parking facilities on other lots within the District as may be required for uses on the benefited lot. However the total number of required off-street parking spaces will continue to be based upon calculation of applicable parking requirements for each use existing from time to time on this lot and on each of the lots so benefited. In the Health Care Services District, notwithstanding any other provision of this bylaw, off-street parking facilities may be located in the required front yard, provided that parking spaces are located no closer than 30 feet from the property line adjacent to Groton Road. In the Health Care Services District, notwithstanding any other provision of this bylaw, each required car space shall not be less than nine (90) feet in width and eighteen (18) feet in length, exclusive of drives and maneuvering space.

#### **6.4 Shared Parking.**

Shared parking encourages mixed use development and greater efficiency in land use. Shared parking opportunities exist where the same parking space can be utilized by two or more different land uses due to differences in principal operating hours for the uses involved. Shared parking facilities may be allowed with a Special Permit from the Zoning Board and Site Plan Review by the Planning Board.

##### **6.4.1 Shared Parking for Private Parking Facilities**

The following are requirements for approval of a shared parking facility:

- a. Shared parking is only permitted in the GB, DB, LI, and HI zoning districts.
- b. The uses and common parking facility must either be owned by the same developer/owner and located in close proximity to one another or written agreements must be provided if there are multiple owners and/or successors.
- c. Parking spaces to be shared shall not be reserved for certain individuals or groups on a 24 hour basis.
- d. Any subsequent change in land uses within the mixed use development shall require proof that sufficient parking will be available.
- e. No restrictions should be placed on the use of the parking spaces. Each space should be usable by any motorist with the exception of handicap spaces.
- f. An interior traffic flow plan shall be provided. Signage for circulation

may be necessary.

- g. Demonstrate parking area security.
- h. Demonstrate how shared parking enforcement will be undertaken.

To determine whether shared parking is appropriate, the Zoning Board shall follow the following method to calculate the amount of parking required for a specific mix of uses.

- a. Conduct an initial project review as knowledge of the site and proposed land uses becomes more important when designing shared parking requirements than traditional analysis of parking demand. Relationships between land uses would be a crucial determinant.
- b. Conduct an analysis of parking requirements for five different time periods. This analysis should be conducted for individual land uses. This would provide an estimate of parking accumulations for each land use during a typical weekday or weekend. The results should be presented as a percentage of peak parking requirements (e.g.: see Table of Shared Parking Calculation).
- c. Determine the minimum amount of parking required for each proposed or existing land use as though it were a separate use.
- d. Multiply each amount by the corresponding percentage for each of the five time periods.
- e. Calculate the column total for each time period.
- f. The column total with the highest value is the parking space requirement.

**Table 2  
Shared Parking Calculation**

	WEEKDAY	WEEKEND		NIGHT	
	Daytime 9am - 4 pm	Evening 6pm - Midnight	Daytime 9 am-4 pm	Evening 6pm - Midnight	Evening Midnight - 6 am
Office/Industrial	100%	10%	10%	5%	5%
Retail	60%	90%	100%	70%	5%
Hotel	75%	100%	75%	100%	75%
Restaurant	50%	100%	100%	100%	10%
Entertainment/Recreation	40%	100%	80%	100%	10%

#### 6.4.2 Shared Parking for Municipal Parking Facilities

- a. A municipal parking facility should be reasonably close to the land use to ensure that shared parking will occur. The major entrance of the land use should be within 500 feet of the parking facility.

b. Municipal parking facilities may be used as the sole shared parking facility serving nearby land uses. The calculations for parking requirements follow that of private mixed use facilities, Table 2, Shared Parking Calculation. However, certain land uses may share parking with the public parking facilities during periods when excess public parking is normally available. A reduction in the parking requirements is permitted for these land uses as shown in Table 3, Percentage of Parking Reduction for Municipal Shared Parking Facilities.

c. Other factors that may be considered when exploring flexible parking standards are reductions in off street parking requirements for historic districts, collecting fees in lieu of parking for certain business districts, allowing off street parking when on site parking is not feasible, and using parking reductions to encourage ride-sharing programs.

**TABLE 3**  
**Percentage of Parking Reduction**  
**for Municipal Shared Parking Facilities**

	% Parking Reduction
Retail	40%
Hotel	25%
Restaurant	50%
Entertainment/Recreation	60%
Multifamily	40%

## 6.5 Parking Standards

Proposed projects or uses must comply with Parking and Off-street Loading regulations in Article 6 and the following standards:

a. No parking shall be permitted within the required front yard setback of a structure. If the physical configuration of the lot creates a hardship for the property owner to meet this requirement, the Planning Board may allow parking in the front, with adequate screening, as noted in Article 9, Special Provisions, Section 9.3 Screening and Buffers on page 112.

b. To the extent feasible, parking areas shall be shared with adjacent businesses.

c. For developments which make a long-term commitment to actively promote employee and public use of transit, ridesharing, and other means to reduce single occupant vehicle (SOV) trips, minimum parking standards may be reduced by a percentage, up to a maximum of twenty percent (20%) to be determined by the Planning Board based upon the adequacy of trip reduction plans submitted in accordance with Article 9 Special Provisions, Section 9.4 Commercial Development Standards, on page 114 subsection b.

## **ARTICLE 7. SPECIAL DEVELOPMENT REGULATIONS**

### **7.1 Cluster Development**

Approved by Attorney General December 10, 1999

#### **7.1.1 Applicability**

Cluster Developments shall be permitted in the Residence A-1, Residence A-2 and GR districts only, upon issuance of a Special Permit with site plan review from the Planning Board, which shall act in all instances as the Special Permit Granting Authority (SPGA) and approval of a subdivision plan of the land. These actions shall be in accordance with the additional requirements specified herein and in a concurrent review process integrating the subdivision and special permit procedures.

All definitions of terms included in Article 7, Special Development Regulations, Section 7.1 Cluster Development shall super cede like definitions existing in Article 2 on page 7 of the Ayer Zoning By-Law (ZBL), for purposes of pursuing a cluster development.

#### **7.1.2 Definition and Purpose**

A cluster development is a subdivision consisting of: 1) three or more residential units, in which a parcel of land is divided into lots for constructing dwellings of varying types, wherein the lots may have a smaller land area or dimensions than required in a conventional subdivision; and 2) common open space. The cluster subdivision may be established on the basis of condominium, cooperative or individual ownership or modifications thereof.

The purpose of the Cluster Development By-Law is, through more flexible design, to encourage the preservation of open land and waters for their scenic beauty and agricultural, open space, and recreational use; to preserve historical and archaeological resources; to protect the water resources; to maintain the value of real property; to promote more sensitive siting of buildings and better overall site planning; to promote a variety of housing types; to promote a better use of the land in harmony with its natural features; and to facilitate the construction and maintenance of streets, utilities and public services in an economical and efficient manner.

To accomplish these community goals, it is intended that Cluster Development be developed as an entity in which an alternative pattern of development may be permitted in order to gain the following benefits:

- a. The provision of an alternative to conventional subdivision patterns and associated consumption of land into private lots and unnecessary paving and infrastructure.
- b. The potential creation of more affordable housing units than in a conventional subdivision.

- c. The enhancement of the compatibility of the proposed development with that of the surrounding residential areas.
- d. The increased protection of natural resources including water bodies and water courses, wetlands resource areas and buffers, floodplains, agricultural lands and wildlife habitat.
- e. The increased protection of aquifer recharge areas and the municipal water supply.

**7.1.3 Use and Dimensional Standards**

The area of the parcel to be developed shall not be less than 65,340 square feet in residence district GR, 87,120 square feet in A-2, and 108,900 square feet in A-1.

**7.1.3.1 Allowed Housing Types**

- a. General: the following types of residential buildings shall be allowed in a cluster development: one-family detached; semi-attached dwelling; (two units separated by a common wall; two-family or duplex (over and under units); townhouse with a limit of six units in one building; (units in) converted municipal, institutional or industrial building.
- b. A maximum of 40% of the units in a cluster development shall be of the one-family detached type.
- c. The entire development shall be served by the public sanitary sewer and water distribution systems. If connection to one or both of these services is not immediately available, the applicant shall make necessary capital improvement projects that will create the necessary tie-in to the service(s), as part of the subdivision application.
- d. Except as specified in a special permit granted under this section, all requirements of the Zoning By-Law shall continue to apply.

**7.1.3.2 Allowed Density (density entitlement)**

- a. The density entitlement for dwelling units shall be calculated in two ways. First, it shall be calculated in the manner of a conventional non-cluster subdivision, citing Article 5 Dimensional Regulations, Section 5.12 on page 72 ZBL. Second, it shall be calculated by means of the following formula: take the total parcel area less seventy five percent (75%) of the wetland resource areas (as defined by the MA Wetlands Protection Act, Chapter 131 M.G.L., and 310 CMR) and land sloped more than twenty (20%) percent, less ten (10) percent of that area (for roadways) and dividing that number by the minimum lot area of the zoning district in which the parcel is located and round it to the nearest whole number. The greater density entitlement of the two shall constitute the allowed number of

units.

### 7.1.4 Area Regulations for Cluster Development

( minimum lot area requirements are for density entitlement calculations for the entire parcel)

District	A-1	A-2	GR
Minimum parcel size	2.5 acres	2.0 acres	1.5 acres
Min. Lot Area Single-family (for density entitlement purposes only)	40,000 SF	12,000	10,000 SF
Individual Minimum Lot Frontage	50'	50'	50'
Min. Parcel Frontage On Public or Acceptable Street*	150'	100'	50'
Individual Lot Min. Front Setback* (as per Art. II and V-12, ZBL)	No requirement**	No requirement**	No requirement**
Individual Lot Min. Side Setback* (as per Art. II and V-12, ZBL)	No requirement**	No requirement**	No requirement**
Individual Lot Min. Rear Setback* (as per Art. II and V-12, ZBL)	No requirement**	No requirement**	No requirement**
Max. Building Coverage (entire parcel)	20% in all districts.		
Max. Impervious Surface (entire parcel)	25% in all districts		
Minimum Buffer Areas around parcel perimeter	See Section 7.1.6.2 b. below.		

\*May be established by the Planning Board within its discretionary special permit authority for a cluster development.

\*\* "No Requirement" shall mean that any setback dimension may be set by the Board within its discretionary special permit authority for a cluster development.

### 7.1.5 Affordable Dwelling Units

a. Applicants are encouraged to provide dwelling units that are deemed to be affordable or below market sales price or rental levels for the region. Units may be of the ownership type or, if managed by a duly authorized non-profit or governmental entity, rental type.

b. The applicant shall establish such restrictions, conditions and/or limitations as are necessary to ensure that any designated affordable housing units provided in the development will remain affordable housing on a long term basis, whether said units are of the ownership or rental type. By means of special conditions attached to the issuance of the Special Permit where affordable units are proposed in a cluster, the Board shall establish a requirement that the units remain affordable for a minimum of twenty years or other period set by the Board. Affordability levels shall be indexed over

time to rents and sales prices based upon annual household income definitions provided by the HUD Regional Economist, Boston regional office. A maximum of thirty (30) percent of the units in a cluster may be designated as affordable units. Affordable housing units shall be geographically dispersed throughout the development, to the degree feasible, in developments with ten (10) or more units.

#### **7.1.6 Cluster Development Design Guidelines**

##### **7.1.6.1 Vehicular and Pedestrian Access and Circulation**

a. The principal access drives serving the cluster development site shall be known as Interior Roadways. They shall not be required to meet municipal design standards in Section IV of the Subdivision Control Regulations for local residential streets in all aspects, but shall be of sufficient design in terms of width and vertical and horizontal geometry to accommodate larger emergency vehicular access. Interior Roadways are intended primarily to provide general vehicular access and site circulation, and frontage to lots. Interior Roadways shall connect to an accepted public street or an unaccepted street that is deemed to be of adequate grade and construction by the Planning Board by means of its subdivision control waiver authority.

b. A Driveway shall be defined as a portion of a cluster development that allows for vehicular passage, has an all-weather surface, and connects a parking area or garage to an Interior Roadway. A Driveway shall not be intended for provision of lot frontage.

c. Dead end Interior Roadways in a cluster development shall not exceed 650 feet in length, inclusive of a turnaround circle. Alternative turnaround designs, such as hammerheads or teardrop shapes may be proposed, subject to approval of the Planning Board in consultation with the town Public Works Department and Fire Chief.

d. Cluster developments with ten (10) or more dwelling units shall have a second means of access to and from the parcel. Developments with fifty (50) or more dwelling units shall have at least a third means of access.

e. Roadways shall be laid out so as to minimize long vistas of pavement and monotonous linear arrangements of buildings.

f. The Board may require the construction of sidewalks along certain segments of Interior Roadways, as necessary for the facilitation of pedestrian access and enhancement of safety.

##### **7.1.6.2 Screening and Buffers**

a. Layout and design shall respond to needs for privacy between and around dwelling units; residential buildings shall be arranged to maximize the preservation of existing trees and tree groves.

b. On parcels five (5) acres or greater in area, there shall be a minimum open space perimeter buffer of twenty five (25) feet in width around the

entire property (all boundaries of the parcel). When the five or more acre parcel abuts a Major Collector or Arterial roadway (principal street) along any of its boundaries, a minimum buffer of one hundred (100) feet in width shall be reserved along that portion of the parcel.

c. All buffers shall be kept in a natural or landscaped condition and shall remain free of buildings and accessory structures (except for minor structures required for utilities service) and parking areas. Buffers may be traversed by Interior Roadways and/or Sidewalks. When a parcel has fewer than five (5) acres, the minimum parcel perimeter buffer along all boundaries of the property shall be established by the Board under its discretionary special permit authority, with the exception that the minimum buffer along a principal street shall be fifty (50) feet. The Board may adjust parcel perimeter buffers upward or downward, depending upon the need for visual and/or noise mitigation and the effectiveness of the natural or man-made features to be use as buffers.

d. Measurement of any buffer shall be from any point along the tangential parcel property line to the innermost points that meets the minimum dimensional requirement specified herein, or to the innermost points along the larger buffer width offered by the applicant in the site plan submission.

#### 7.1.6.3 Common Open Space

a. The total area of open space required shall be at least forty (40) percent of the total parcel area, shall be set aside as Common Open Space.

1) Such Common Open Space shall be restricted to conservation/wildlife habitat, agricultural uses, recreational uses such as a tot-lot, park, playground, play field or golf course.

2) Such Common Open Space shall have suitable access to and from the development's Interior Roadways. Such Common Open Space shall be placed under a Conservation Restriction/Easement in accordance with the provisions of M.G.L. Chapter 184, Sections 31-33 as amended. Such common area shall be deeded for ownership and/or general maintenance purposes to either: (a) a corporation or trust comprising a homeowners or condominium association whose membership includes the owners of all lots and/or units contained in the development and is created by covenants running with the property; or b) to a recognized Massachusetts-registered non-profit organization in good standing, the principal purpose of which is the conservation and stewardship of open space, in trust to the owners of the property. The applicant shall, in all cases, include in the deed to owners of individual lots or units the beneficial rights in said open land, and shall grant a conservation restriction to the Town of Ayer, via its Conservation Commission, encompassing such land pursuant to Massachusetts General Laws, Chapter 184, Sections 31-33, to insure that such land be kept in an open or natural state and not be built upon for principal or accessory

uses. If a portion of the common land involves active recreation uses, similar rights may be granted to the Ayer Parks Department.

3) Organizations charged with the stewardship, maintenance, ownership or operation of said common open space shall not be dissolved nor shall they dispose of any of said property by sale or otherwise, without first offering to dedicate (donate) the same to the town.

b. The majority of the common area shall consist of uninterrupted blocks of contiguous areas readily accessible to most residents of the development from Interior Roadways and other open areas. Linkage strips connecting blocks of Common Open Space shall be encouraged in the project design and clearly shown on the plan. The preservation of the original land form and existing vegetation shall be of primary importance in the design process and Planning Board review and shall be established to the maximum feasible degree.

c. A minimum of 25 % of the Common Open Space shall qualify as Usable Open Space, which shall be defined as land that is readily accessible to the residents, has grades that are less than an average of 15 to 20% and does not consist of bordering vegetated wetlands (as defined in Chapter 131, Section 40, M.G.L., the Wetlands Protection Act and 310 CMR). The Board may increase this minimum requirement under its discretionary special permit authority.

d. If the proposed development abuts a great pond, the development shall include appropriate public access to the pond from a public way. This access shall be secured by an easement or by actual transfer of land to the town if one or more subdivision roads are used as part of the access, then an easement including the portions forming the access shall be granted to the public until such time as the road(s) are accepted by the town. This requirement may be waived by the Planning Board if, and only if, it finds that adequate accesses are provided to the great pond in other locations. This section is for the purpose of insuring the access to great ponds as required by Massachusetts General Law.

#### 7.1.6.4 Protection of Environmentally Sensitive Areas

a. The Planning Board may reduce the number of lots otherwise allowed for the protection of aquifers, wetlands, or other environmentally sensitive areas.

b. Wildlife habitats of species listed as endangered, threatened or of special concern by the Massachusetts Natural Heritage Program shall be protected as part of the Common Open Space.

#### 7.1.6.5 Building Lot Layout and Siting

a. In general, the Board may exercise its discretionary authority under zoning special permit powers to encourage better site design through flexible

standards.

b. In all cases, at the preliminary plan and definitive plan stages, the applicant shall designate a Limit of Work Line, beyond which no construction may encroach. The applicant may also designate, or the Planning Board require, an additional or inner Limit of Work Line, within which there may be minimal disturbance, such as thinning of vegetation. The Board may adjust this minimum requirement under its discretionary special permit authority.

c. Residences should be grouped in locations so that the greatest number of units can be designed to take advantage of active and passive solar resources, and satellite broadcasts and narrowcasts.

d. Relative to topography, fields and woodlands on the site, scenic views and long vistas from key points external to the development site, such as the view from publicly-used roads, special observation points and/or abutting properties, shall be considered in the planning and design process and preserved to the maximum feasible degree. Similarly, significant scenic views for residents from within the site shall be considered in the planning and design process and preserved to the maximum feasible degree.

e. In areas within two hundred (200) feet from the shorelines of open bodies of water (reservoirs, lakes, ponds, rivers, streams), lots shall be laid out, to the greatest extent feasible, to achieve the objectives listed below; lots and residential buildings shall be sited:

1) on a portion of the site that will most likely conserve shoreline vegetation and the integrity of the buffer strip;

2) so as to be integrated into the existing landscape through features such as vegetative buffers and through retention of the natural shorelines.

3) so as to minimize erosion, sedimentation, or water pollution.

4) so as to minimize any disruptions to the natural flow of the water course.

5) to help protect fisheries and wildlife habitat within and along the water course.

6) in a way that enhances and preserves existing agricultural lands, floodplain and other environmentally sensitive areas along the shoreline.

7) to maintain uncut buffer strips of native vegetation fifty (50) feet back from the bank of any affected water course, within which limited limb removal may be permitted to create filtered views and within which unpaved woodland paths may be created.

f. In areas of greater than fifteen to twenty (15 - 20) percent average

slope, or upon hilltops or ridgelines, lots shall be laid out, to the greatest extent feasible, to achieve the objectives to follow; lots and residential buildings shall be sited:

- 1) so that building silhouettes will be elevated significantly below the ridgeline or hilltop or, if the site is heavily wooded, at least ten (10) feet lower than the average canopy height of trees on the ridge or hilltop.
  - 2) so that their placement on steep slopes shall not detract from the site's scenic qualities or obstruct significant views, and shall blend with the natural landscape to the greatest possible degree; this standard also shall include signs and accessory buildings;
  - 3) so that in instances where public views will be unavoidably affected by the proposed use, architectural and landscaped measures shall be employed so as to minimize significant degradation of the existing scenic or aesthetic qualities of the steep site.
  - 4) so that foundations will be constructed to reflect the natural slope of the terrain to the maximum feasible extent;
  - 5) so that units on steep wooded slopes shall attempt to employ exterior architectural facades that utilize building materials which blend with the natural wooded landscape, both in texture and darker colors.
  - 6) so that the removal of native vegetation or trees shall be minimized to the extent feasible in clearing sites for new buildings and Interior Roadways and Driveways. Where new landscaping is proposed, preference shall be given to native trees and plants in order to maintain the natural character of the steep wooded site.
  - 7) so that any grading, road building or earth-moving in conjunction with the proposed development shall be planned and executed in such a manner that the final contours are consistent with the existing terrain, both on and adjacent to the site.
  - 8) so that mitigations shall be employed where needed to reduce environmental degradation from erosion, sedimentation, water pollution or flooding.
  - 9) so that the layout of roads, utilities and buildings shall be designed to minimize the alteration of the existing topography and land forms.
- g. In instances where agricultural uses are to remain active within or abutting the development site, proper consideration shall be given by the applicant to buffering those uses from the proposed residential buildings.

## 7.1.7

### Application Contents and Process

#### 7.1.7.1 Concept Plan Submission–Purpose and General Requirements

The material required for a Concept Plan shall be filed by every applicant and then presented to the Planning Board at a public meeting, for the purpose of assessing the impact or implications of the development and shall be used in the preparation of detailed design plans. The presentation and discussion generally shall be scheduled within thirty days of filing.

The concept plan shall contain information of a graphic and written nature that is sufficient to allow meaningful discourse between the Planning Board and the applicant and to permit the Planning Board to convey guidance to the applicant in regard to detailed site design. The Concept Plan is meant to offer, at the earliest point in the process, a means of establishing critical dialogue between the applicant and the Board prior to entering into detailed project design, rather than to be a venue for public testimony from other interested parties.

The intent of a Concept Plan is to:

- a. Provide the Planning Board with an understanding of the natural and man-made features of the site.
- b. Provide the Planning Board with a general idea of what the By-Law and Subdivision Control Regulations will allow on the site.
- c. Provide the Planning Board with a conception of the development alternatives being considered on the site.
- d. Provide the applicant with an opportunity to discuss the development issues within a less formal venue than that of a public hearing.
- e. Provide the applicant with a chance to receive meaningful response and direction from the Board, prior to incurring the costs of more detailed design stages.
- f. Provide the applicant with sufficiently explicit guidance to allow the developer to proceed with confidence to a more detailed design stage on an informed basis.

The proceedings on a Concept Plan submission shall be of an informal nature and shall not constitute a public hearing. Neither legal notice or abutter notice shall be required for the Concept Plan presentation.

#### 7.1.7.2 Concept Plan Submission Requirements

##### a. General Requirements

- 1) In order to ensure that the land can be used for building purposes without danger to public health and safety, with proper provisions made for the protection of various environmental resources, the development shall maximize the preservation of on-site sensitive resources, whether natural or man-made.

- 2) Plan drawings generally shall be prepared at 1"= 100' or other scale suitable for general land planning purposes. Site development alternatives portraying multiple development options on a single sheet may be shown at 1" = 200' or other scale suitable to the purpose. Locus or vicinity maps shall be drawn at a scale suitable to portraying the study area with sufficient detail to allow the Planning Board to readily identify location and context of the proposed development. The area depicted beyond the boundaries of the parcel shall not be less than 100 feet or greater distance as required by the Planning Board.
- 3) The design team shall include a registered landscape architect.

b. Specific Submission Requirements

- 1) Opportunities and Constraints Drawing(s)
- 2) Boundaries of resource areas regulated by the Ayer Conservation Commission under the MGL, c 131, Chapter. 40, 310 CMR.
- 3) Location and limits of soil types consistent with the soils classification maps prepared by the U.S. Department of Agriculture.
- 4) Topographic contours at intervals of ten (10) feet or less, and approximate location of prominent geological features such as eskers and drumlins.
- 5) The approximate extent of known aquifers of regional significance underlying the site, and any water supply protection overlay Zones One and Two, as currently shown on water resources maps prepared by the Town of Ayer.
- 6) The approximate extent of slopes of twenty (20) percent or greater, unless the Board requires, under its discretionary special permit authority, depiction of lesser gradients deemed to be essential to site planning.
- 7) The approximate location of stands of woodland, unusual or prime vegetation and mature individual specimen trees of generally greater than 20" base caliper.
- 8) The identification of cultural and historic resources, including but not limited to: stone walls on and within the boundary of the site, archaeological artifacts, historic residential buildings and settings.
- 9) The general depiction of significant views from within and without the site, using illustrative arrows and annotation.

- 10) The zoning district(s) in which the proposed development is located, including aquifer protection overlay districts and any zone boundary line passing within one hundred (100) feet of any point along the boundary of the site.
- 11) The approximate extent of flood hazard zones A and A1-30, as depicted on the Town of Ayer Flood Insurance Rate Maps.
- 12) The location of buildings and general land uses within a minimum one hundred (100) feet of any point along any boundary of the site; the Planning Board may require, prior to filing of the application, that this limit be extended to any reasonable degree, depending upon the size and overall scope of the proposed development.

c. Conceptual Site Development Plan--Contents

- 1) A locus map shall be submitted indicating location of the proposed development within the surrounding neighborhood and in relation to the existing street system.
- 2) A proof plan depicting, at the conceptual engineering level of design, the layout of a conventional, complying subdivision plan, including street layout (with right-of-way and grades); creation of lots or re-subdivision of property; the surveyed outer boundary of the site to be developed; and significant easements existing or required on the site.
- 3) A density entitlement calculation table, based upon the greater-of-two-calculations formula outlined in Section 7.1.3.2.

d. For all alternative site development concepts (site design options) presented, the following shall be submitted.

- 1) the general layout of proposed streets, Interior Roadways and Driveways;
- 2) the siting of all residential buildings and accessory residential buildings on the site, with approximate grades;
- 3) the number and projected mix of dwelling units; the approximate location of all common open space.

e. For a preferred alternative designated by the applicant, the submission shall include, in addition to all of the material listed in the paragraph immediately preceding, the following:

- 1) A development data table, generally including, but not limited to, these items:

- (a) zoning district(s) in which the parcel lies;
- (b) total parcel area,
- (c) amount of site in wetlands resource area;
- (d) percents building coverage and impervious area;
- (e) the amount of common and usable open space; and
- (f) the amount of developable site area allowed under this By-Law,

### 7.1.7.3 Concept Plan--Procedures

#### a. Guidance from Planning Board

Within 30 days after filing, the Concept Plan shall be placed on the agenda of a regular public meeting of the Planning Board for presentation by the applicant and discussion with the Planning Board members. After the presentation and discussion are concluded at the meeting, the Planning Board shall provide guidance in regard to any or all of the following aspects of the proposed development, as applicable:

- 1) a preferred design alternative (or combination thereof);
- 2) modifications to any features of the conceptual site design in terms of access drive layout or siting of the buildings and dwellings;
- 3) site screening and buffering, retention of vegetation and landscape treatment;
- 4) protection or enhancement of man-made or natural features on the site;
- 5) the mix of dwelling units;
- 6) mitigation of impacts upon abutting uses; or
- 7) any other site development features for which the Planning Board feels modification and guidance to the applicant are needed.

#### b. Comment Letter from Planning Board

The Planning Board shall be required to provide the applicant with a written review and comment letter addressing the preceding topics within fourteen (14) days of the meeting on the Concept Plan. This comment letter shall also provide explicit guidance and a finding in regard to the following choices for proceeding to the next step:

- 1) The Concept Plan is thorough, sensitive to the needs of its site and the area, development issues are not of an overly difficult nature and there is a clear preferred alternative emerging from the process; the project may therefore proceed to the DEFINITIVE PLAN stage.
- 2) The Concept Plan is hampered by the lack of a clear preferred alternative, has major development issues, is insufficiently sensitive to the needs of the site and/or the area and there is a clear need to

RE-WORK THE DEVELOPMENT CONCEPT and resubmit the plan at the conceptual level.

3) The Concept Plan has merit and a probable preferred alternative, but there are significant development issues and site constraints that require additional design attention; the Concept plan should therefore proceed to a PRELIMINARY PLAN submission

## **7.1.8 Preliminary Development Plan Submission**

### **7.1.8.1 General Requirements**

a) Preliminary subdivision plans may be submitted: (1) at the applicant's option following the submission and review of a Concept Plan, or, (2) if required by the Planning Board as a next step following the Concept Plan stage. They shall never be submitted as the first step in the cluster approval process.

b) Preliminary Subdivision Plans (Plans) shall be submitted in compliance with the Rules and Regulations governing the Subdivision of Land in the Town of Ayer. The review by the Planning Board shall be concurrent with the submission of a Special Permit with Site Plan Review, under Article 10, Site Plan Review on page 119 and with the Planning Board acting as the special permit granting authority. The Special Permit cannot be granted by the Planning Board at the Preliminary Plan stage, but the site plan issues pursuant thereto may be discussed at the Preliminary Plan level for possible granting later at the Definitive Plan stage. Commentary: Incorrect cross-referencing.

c) Together, the Preliminary Subdivision Plan and the Special Permit Site Plans shall constitute the Preliminary Development Plan submission. A Preliminary Development Plan shall not be required, unless the Planning Board does not authorize the previously-reviewed Concept Plan to proceed to the Definitive Plan stage.

### **7.1.8.2 Preliminary Development Plan—Submission Requirements**

Applicants shall file with the Town Clerk, one (1) copy and with the Planning Board, ten (10) copies, of the following documents, generally drawn at a scale in the 1" = 40 or 50 feet range, subject to variation under its special permit authority by the Board, depending on the size and shape of the parcel and extent of development.

a. An Opportunities and Constraints Drawing (may be extracted directly from the Concept Plan submission).

b. A Locus Map (may be extracted directly from the Concept Plan

submission).

c. A Density Calculation Table (may be extracted directly from the Concept Plan submission, in accordance with 7.1.3.2 of the ZBL.

d. A General Property Rights Plan (not necessarily based upon new field surveying), subject to provision of further detail and adjustment by the Board at the Definitive Plan stage and depicting: approximate metes and bounds from existing, secondary sources; proposed lotting; general boundaries of Common Open space; zoning district boundary lines; easements, existing and proposed, and conveyances of specific rights in the property; and any other information deemed to be necessary to portray property rights at the preliminary phase.

e. A Preliminary Site Plan, depicting the preliminary layout of the residential buildings, parking areas, landscaping, general development grades, major natural features, accessory structures, general scheme for on-site stormwater management, and other key features of the proposed development, at an approximate and preliminary level of design.

f. A Preliminary Street Layout, Plan and Profile, not requiring final design grades or engineering detail but providing sufficient information to make clear the general design standard of the Interior Roadway.

g. A Preliminary Utilities Plan without final design grades or engineering detail, but with sufficient information to make clear the general concept for provision of utility systems and off-site stormwater management.

h. A Preliminary Landscape Plan (without a proposed plant schedule or final selection of plant materials).

i. A Form B Application, cover letter summarizing the submission and a detailed Statement of Response to Concept Plan stage comments, as applicable.

#### 7.1.8.3 Preliminary Development Plan—Planning Board Procedure

The Planning Board shall review the Preliminary Development Plan at a public meeting and take action within forty-five (45) days of filing. The applicant may make a public presentation at this meeting, explaining the design and scope of the project. The public may attend this meeting but may speak only if authorized by the Board Chairman. Taking action shall mean the issuance of a Preliminary Plan guidance document to the proponent, providing findings and determinations of the Board in regard to both subdivision and site plan issues and indicating what must be addressed in the Definitive Plan design stage. A written letter or guidance document shall be issued by the Planning Board before the 45 days are expired, in which the findings and design direction are fully explained.

## 7.1.9 Definitive Development Plan Contents

### 7.1.9.1 General Requirements

Definitive Subdivision Plans (Plans) shall be submitted in compliance with the Rules and Regulations governing the Subdivision of Land in the Town of Ayer. The review by the Planning Board shall be concurrent with the submission of a Special Permit with Site Plan Review, under Article 10 on page 119 of the Zoning By-Law (ZBL) and with the Planning Board acting as the special permit granting authority. A minimum of one (1) public hearing shall be conducted, in accordance with all requirements for legal and abutter notice.

Together, the Definitive Subdivision Plan and the Special Permit Site Plans shall constitute the Definitive Development Plan submission and, if deemed complete, shall proceed to the public hearing process.

Plans shall generally be drawn at a scale of 1" = 40', although the Board may authorize plan scales at 1" = 30' or 1" = 50", if this is deemed acceptable or preferable for the site. The Plans shall be drawn by a team consisting of: a registered professional engineer and registered landscape architect, with survey plans stamped by the registered land surveyor who performed the boundary survey. In addition, a registered architect may be required by the Planning Board.

### 7.1.9.2 Application Filing

Applicants for a cluster development shall submit to the Planning Board ten (10) copies and an original of each of the following: an application, and a definitive development plan as defined in the next paragraph. If the plan involves more than one (1) ownership, each owner of the land included in the plan shall be a party to the application, and upon approval, subject to its provisions.

### 7.1.9.3 Plan Submission Requirements

- a. A Site Analysis Map, based upon instrument field survey, accurately depicting Limit of Work Lines, trees of larger than 6" caliper (@ base) within the Limit Of Work Line, wetlands, water bodies and water courses.
- b. A Locus Map (may be extracted directly from the Concept Plan or Preliminary Plan submission).
- c. A Density Calculation Table (may be extracted directly from the Concept Plan or Preliminary Plan submission and incorporated into the Site Plan).
- d. A Definitive Property Rights Plan based upon new field survey; surveyed boundaries of Common Open space; zoning district boundary lines;; proposed easements, existing and proposed, existing deed restrictions and conveyances of specific rights in the property; property markers and monuments; any other information deemed to be necessary to portray property rights for recording purposes at the Registry of Deeds or Land Court.

- e. A detailed Site Plan design, depicting the layout of the proposed residential buildings, parking areas, finish site grades; major natural features intended to remain undisturbed; accessory structures, design for stormwater management system; the final mix of housing unit types; and other key features of the proposed development; also refer to Article 10 Site Plan Review on page 119, ZBL.
- f. A Definitive Street Layout, Plan And Profile, providing full horizontal and vertical design detail for the proposed streets and the Interior Roadways, grades and vertical curve data for the length of the streets and Interior Roadways; center line stations; and catch basins, manholes and cleanouts with invert elevations, also refer to Town of Ayer Subdivision Control Regulations, Section IV, Design Standards.
- g. A Utilities Plan showing the location, size and engineering detail of the existing municipal water distribution lines, sanitary sewer collection lines, stormwater management systems, fire hydrants, pumping stations and other system features. The Utilities Plan also shall include design of all proposed utilities to be constructed on site and their connections to the municipal systems; also refer to Town of Ayer Subdivision Control Regulations, Section IV, Design Standards.
- h. A Landscape Plan showing existing and finish grades; existing and retained vegetation and woodlands; proposed plantings of trees, shrubs flower beds and gardens; site furnishings, fountains, walls and fences and other ornamental features; historical and cultural resources to be preserved; walkways; landscape lighting; building footprints and parking areas; planting schedule with all varieties, common and botanical names, and planting.
- i. A Proof Plan depicting the layout of a conventional, complying subdivision plan, including street layout (with right-of-way and grades); creation of lots or re-subdivision of property; the surveyed outer boundary of the site to be developed; and all easements existing or proposed on the site.
- j. A Form B Application, cover letter summarizing the submission and a Statement of Response to Concept or Preliminary Plan stage findings and comments, as applicable.
- k. Stormwater Analysis and Calculations (may be in separate report document).
- l. Geotechnical Analysis, including hydrology (as applicable); soils surveys, test pits and/or borings, as needed to demonstrate development constraints and suitability; may be in separate document.
- m. Standard engineering detail sheets, in accordance Town of Ayer Subdivision Control Regulations, Section IV, Design Standards.
- n. A Table of Housing Unit types, with gross floor area and living areas indicated, number of bedrooms and whether the unit is attached, detached or in a multiple unit building.

- o. (At the discretion of the Board): Architectural elevation drawings.
- p. (At the discretion of the Board): Architectural schematics and floor plans, if major site issues require resolution.

#### 7.1.9.4 Review of Other Municipal Boards

Upon receipt of the application for a cluster development, the Planning Board shall within ten (10) days transmit notice to review to the Board of Health, Conservation Commission, Town Engineer, Department of Public Works, Police Department, Fire Department and any other relevant boards and departments. These boards and departments shall review said plans and provide recommendations to the Planning Board within thirty (30) days of receipt.

#### 7.1.9.5 Review and Approval Process and Issuance of Decisions

a. Public Hearing. After the opportunity for review by other Boards has taken place, the Planning Board shall hold a hearing under this section, in conformity with the provisions of General Laws, Chapter 40A, Section 9 and of the Zoning By-Law and Regulations of the Planning Board. The hearing shall be held within sixty-five (65) days after filing of the application with the Planning Board and the Clerk. Notice shall be given by publication and posting and by first class mailings to "parties of interest" as defined in General Laws, Chapter 40A, Section 11. The decision of the Planning Board, and any extension, modification or renewal thereof, shall be filed with the Planning Board and Clerk within ninety (90) days following the closing of the public hearing. Failure of the Planning Board to act within ninety (90) days shall be deemed a grant of the permit applied for.

b. After notice and public hearing in accordance with Section 9 of the Zoning Act (MGL c. 40A), the Planning Board may, after due consideration of the reports and recommendations of the Conservation Commission, Planning Board, Board of Health, Department of Public Works and Town Engineer and other municipal boards and departments, as deemed appropriate by the Planning Board, grant a Special Permit provided that the conditions and standards of this section of the Zoning By-Law have been adequately met.

c. A Special Permit granted under this section of the Zoning By-Law shall lapse within eighteen (18) months if construction has not begun or is not continuing to proceed, except for a good cause shown and approved by the Planning Board. The Special Permit may be renewed or extended with approval by the Planning Board.

- d. Concurrently with the issuance of the special permit, the Planning Board may issue a Certificate of Action for subdivision approval, with all findings and conditions of approval delineated therein.
- e. The Special Permit and Certificate of Action shall be registered at the Town Clerk's Office by the Planning Board and then recorded at the Registry of Deeds.

#### **7.1.10 Planning Board Findings and Recommendations**

The Planning Board may grant a Special Permit under this section only if it finds that the proposed project has shown the following:

- a. That the open space residential development is in harmony with the intent and spirit of the By-Law and the requirements of the Massachusetts General Laws, Chapter 40A, and the town's Master Plan and its latest revisions.
- b. That it will not have a detrimental impact on the integrity of character of the surrounding neighborhoods or adjoining zones.
- c. That it is designed with due consideration for the health, safety and welfare of the public.
- d. That it is preferable to a conventional plan in preserving open space, minimizing environmental disruption and impacts of town services and which allows for more efficient provision of such services.

The Planning Board may set forth additional conditions in its decision including but not limited to the following:

- a. Granting of a covenant or easements to ensure:
  - 1) protection and maintenance of open space
  - 2) rights of public access
  - 3) Limit of Work Lines
  - 4) protection of scenic views and vistas
- b. Subsequent modifications and additions to the Site Plan special permit shall be submitted as minor or major revisions to that plan and shall be subject to approval of the Planning Board.
- c. An alternative rate of development schedule or phasing plan.
- d. Provisions that would restrict overloading .

### **7.2 Additional Requirements for Multifamily Dwellings**

Approved by Attorney General December 10, 1999

### **7.2.1 Siting and Layout Requirements**

a. The development shall be integrated into the existing terrain and surrounding landscape, and shall be designed to protect abutting properties and community amenities. Building sites shall to the extent feasible: (1) minimize use of wetlands, steep slopes, floodplains, hilltops; (2) minimize obstruction of scenic views from publicly accessible locations; (3) preserve unique natural or historical features; (4) minimize tree, vegetation and soil removal and grade changes; and (5) maximize open space retention and (6) screen objectionable features from neighboring properties and roadways.

b. More than one structure may be placed on a lot, but no residential structures shall be placed closer to each other than 10 feet and must be visually separated by trees and plantings. In addition, each dwelling must be provided with access, drainage and utilities functionally equivalent to that provided under the Planning Board's Subdivision Rules and Regulations.

### **7.2.2 Design Requirements**

a. Buildings shall be in harmony with the prevailing character and scale of buildings in the neighborhood and the town through the use of appropriate building materials, screening, breaks in roof and wall lines and other architectural techniques. Variation in detail, form and siting shall be used to provide visual interest and avoid monotony. Proposed buildings shall relate harmoniously to each other with adequate light, air, circulation and separation between buildings.

### **7.2.3 Vehicular and Pedestrian Access Requirements**

a. The Plan shall maximize the safety and convenience of pedestrian and vehicular movement within the site and in relation to adjacent way.

b. Multifamily structures shall have access on roads having sufficient width, suitable grades and adequate construction to provide for the needs of vehicular traffic generated by the site.

c. Connecting walkways with tree belts shall be provided between structures and parking areas within the site and shall be constructed in accordance with the standards set forth in the Ayer Subdivision Regulations.

### **7.2.4 Open Space and Buffer Area Requirements**

a. All land not devoted to dwellings, accessory uses, roads or other development shall be permanently reserved as open space. A minimum of fifty (50) percent of land

reserved as open space shall be grassed, landscaped or wooded land available for active and passive recreation. In the Health Care Services District, dwelling structures shall be set back from other structures, whether residential or not, a minimum of 50 feet, and at least 50% of such required setback shall be grassed, landscaped or wooded land available for active and passive recreation.

b. Multifamily dwellings shall be separated from adjacent properties by buffer strips consisting of trees and/or fencing sufficient to minimize the visual and noise impacts of the development. Such a buffer strip shall be at least ten (10) feet in width and it shall contain a screen of plantings. The screen shall not be less than five (5) feet in width and six (6) feet in height at the time of occupancy of such lot. Individual shrubs or trees shall be planted as close as necessary to create a visual screen and shall thereafter be maintained by the owner or occupants so as to maintain a dense screen year-round. At least fifty (50) percent of the plantings shall consist of evergreens. A solid wall or fence, not to exceed six (6) feet in height, complemented by suitable plantings, may be substituted for such landscape buffer strip as approved by the Planning Board. The strip may be part of the yard.

**7.2.5 Parking, Loading and Lighting Requirements**

a. To the extent feasible, parking areas shall not be located within a required front yard and shall be screened from public ways and adjacent or abutting properties by building location, fencing or planting. No individual parking area shall contain more than fourteen (14) spaces. Parking spaces shall be located not less than eight (8) feet from the front property line and ten (10) feet from the back or side property lines. No parking shall be allowed on interior streets.

b. Exposed storage areas, machinery, service areas, truck loading areas, utility buildings and structures and other unsightly uses shall be set back or screened to protect the neighbors from objectionable features.

c. No building shall be floodlit. Drives, parking areas, walkways and entrance ways shall be illuminated only by shielded lights not higher than fifteen (15) feet.

**7.2.6 Water Supply and Sewerage Requirements**

Water supply and waste disposal systems shall not place excessive demands on municipal infrastructure.

**7.2.7 Storm Water Runoff**

To the extent feasible, measures for run-off from impervious surfaces should be designed to meet the following objectives in an appropriate manner:

- a. prevent non-point source pollution from urban runoff to streams, water bodies or groundwater;
- b. prevent the flooding of other neighboring down-gradient properties;

- c. promote recharge of groundwater aquifers, while preventing pollutants from entering groundwater.

#### **7.2.8 Utility Requirements**

- a. Electric, telephone, cable TV and other such utilities shall be underground.

## **ARTICLE 8      SIGN AND BILLBOARD REGULATIONS**

### **8.1      Purpose**

This section of this bylaw is adopted for the regulation and restriction of signs within the Town of Ayer in order to prevent or minimize damage to the environment, to protect and enhance the visual environment of this town and the safety, convenience and welfare of its residents. This section of this by-law is adopted as a Zoning by-law pursuant to Chapter 40A of the General laws. This section of this by-law is hereby declared to be remedial and protective, and is to be so construed and interpreted as to secure the beneficial interests and purposes thereof.

### **8.2                      Administration and Enforcement**

#### **8.2.1      Enforcement**

- a.      The Building Inspector is hereby authorized to enforce this by-law for any sign erected before and after the adoption of this bylaw. The Building Inspector is authorized to order the repair or removal of any sign and its supporting structure which in his judgment is dangerous, or in disrepair or which is erected or maintained contrary to this by-law.
  
- b.      Immediate removal may be ordered by the Building Inspector of any sign requiring a permit which has been erected without first obtaining such permit.

#### **8.2.2      Permits**

- a.      Except as provided below a sign permit from the Building Inspector shall be required for the erection, construction or alteration of a sign. The application for a permit shall be submitted in such a form as the Building Inspector may prescribe and shall include a drawing to scale and other such information as may be required for a complete understanding of the proposed work. The application shall be accompanied by the written consent of the owner or lessee of the premises upon which the sign is to be erected. In reviewing applications submitted to him, the Building Inspector shall apply the following standards in acting upon each permit, unless otherwise specifically provided:
  - 1)      The sign will not cause visual confusion, flare, or offensive lighting in a neighborhood.
  - 2)      The sign will not be a detriment to the surrounding area.
  - 3)      The sign will not significantly alter the character of the zoning district.
  - 4)      The sign will not interfere with traffic safety in the area.

- b. Within 30 days after the application for a permit has been submitted, the Inspector of Buildings shall approve or disapprove the application. If the Building Inspector does not take any action on the application within 30 days, the application shall be deemed approved.
- c. No permit shall be required for a sign in a residential district erected in accordance with the provisions of this by-law.
- d. Accessory signs legally erected before the adoption of this by-law which do not conform to the provisions of this by-law may continue to be maintained subject to compliance with the requirements for a permit in effect as of the adoption of this by-law, provided, however, that no such sign shall be permitted if, after the adoption of this by law, it is enlarged or altered in any substantial way, except to conform to the requirements of this by-law.
- e. Any sign legally erected before the adoption of this by-law which after that date: advertises, calls attention to or identifies products, persons or activities which are no longer sold, located, or carried on at the premises must be removed within 60 days after notice by the Building Inspector; and any such sign predating this by-law which has not been repaired or properly maintained, must within 60 days after notice to that effect has been given by the Building Inspector, be brought into compliance with the requirements of the by-law or removed.
- f. A sign permit shall become null and void if the work for which the permit was issued has not been completed within a six month period.
- g. Permits shall not be required for window signs.

### **8.2.3 Fees**

- a. All fees shall be paid to the Town and collected by the Building Inspector.
- b. After the adoption of this by-law the sign permit fee shall be set by the Building Inspector.

### **8.3 Sign Types.**

Definitions for sign types are found in the Bylaw definitions section, Article 2 on page 7.

	All Residential Districts	All Business and Industrial Districts
<b>PERMANENT SIGNS:</b>		
Canopy	Y	Y
Free standing	Y	Y
Marquee	-	Y
Projecting	Y	Y
Roof	-	-
Wall	Y	Y

<b>TEMPORARY SIGNS:</b>		
Banner	Y	Y
Freestanding	Y	Y
Movable	-	DB: Y All other districts: -
Wall	-	Y

*Y = Permitted    - = Prohibited    DB = Downtown Business*

**8.4 Permitted Sign Uses**  
**8.4.1 Permanent Signs**

Y = Permitted                      N= Not Permitted

<b>Permanent Signs</b>					
<u>Residential Identification Sign</u>					
		All Residential Districts	Downtown Business	General Business	Industrial Districts
		Y	Y	Y	Y
<i>Regulation Sign Use per District</i>					
For Buildings with One to Four-Family Dwelling Units:	Maximum Size	1 sq. ft	1 sq. ft	1 sq. ft	1 sq. ft
	Maximum Height	12 ft.	12 ft.	12 ft.	12 ft.
	Number per Dwelling Unit	1	1	1	1
For Buildings with Five or More Family Dwelling Units:	Maximum Size	10 sq. ft.	10 sq. ft.	10 sq. ft.	10 sq. ft.
	Maximum Height	6 ft.	6 ft.	6 ft.	6 ft.
	Number per Development	1	1	1	1
	Additional Condition	Free-standing sign only	Free-standing sign only	Free-standing sign only	Free-standing sign only
<u>Home Occupation Sign</u>					
		Y	Y	Y	Y
<i>Regulation Sign Use per District</i>					
Maximum Size		2 sq. ft	2 sq. ft	2 sq. ft	2 sq. ft
Maximum Height		4 ft.	4 ft.	4 ft.	4 ft.
Number per Dwelling Unit		1	1	1	1
<u>Residential Accessory Use Sign (Not including home occupations)</u>					
		Y	Y	Y	Y
<i>Regulation Sign Use per District</i>					
Maximum Size		2 sq. ft	2 sq. ft	2 sq. ft	2 sq. ft
Maximum Height		4 ft.	4 ft.	4 ft.	4 ft.
Number per Dwelling Unit		1	1	1	1
<u>Community Facility Sign</u>					
		Y	Y	Y	Y
<i>Regulation Sign Use per District</i>					
Maximum Size		10 sq. ft	10 sq. ft	10 sq. ft	10 sq. ft
Maximum Height		6 ft.	6 ft.	6 ft.	6 ft.
Number per Dwelling Unit		1	1	1	1
<u>Agricultural Identification Sign</u>					
		Y	Y	Y	Y
<i>Regulation Sign Use per District</i>					
Maximum Size		10 sq. ft	10 sq. ft	10 sq. ft	10 sq. ft
Maximum Height		6 ft.	6 ft.	6 ft.	6 ft.
Number per Dwelling Unit		1	1	1	1

<u>Political Sign</u>				
	All Residential Districts	Downtown Business	General Business	Industrial Districts
	Y	Y	Y	Y
<i>Regulation Sign Use per District</i>				
Maximum Size	6 sq. ft	6 sq. ft	6 sq. ft	6 sq. ft
Maximum Height	6 ft.	6 ft.	6 ft.	6 ft.
Number per Dwelling Unit	No limit	No limit	No limit	No limit
<u>Signs for Nonconforming Uses</u>				
	Y	Y	Y	Y
<i>Regulation Sign Use per District</i>				
Signs for Nonconforming Uses must conform to the sign standards for the permitted sign use of the conforming sign use				
<u>Business Sign for Commercial, Retail or Service Use</u>				
	N	Y	Y	Y
<i>Regulation Sign Use per District</i>				
Maximum Size	--	40 sq. ft	40 sq. ft	40 sq. ft
Maximum Height	--	5 ft.	5 ft.	5 ft.
Max. Ht. for Freestanding sign	--	10 ft.	15 ft.	15 ft.
Max. Ht. for Other Sign Types	--	15 ft.	15 ft.	15 ft.
Minimum Setback from Lot Line	--	None	10 ft.	10 ft.
Number Per Single Use Building	--	2	2	2
Number Per Multi-Use Building	Per Business Use	--	1	1
	Per Development	--	1	1
<u>Business Sign for Wholesale, Transportation or Industrial Use</u>				
	N	N	N	Y
<i>Regulation Sign Use per District</i>				
Maximum Size	--	--	--	75 sq. ft
Max. Ht. for Freestanding sign	--	--	--	15 ft.
Max. Ht. for Other Sign Types	--	--	--	20 ft.
Minimum Setback from Lot Line	--	--	--	25 ft.
Number Per Single Use Building	--	--	--	2
Number Per Multi-Use Building	Per Business Use	--	--	1
	Per Development	--	--	1
<u>Traffic or Directional Signs of Government Body</u>				
	Y	Y	Y	Y
<u>Incidental Signs</u>				
	N	N	N	N

## 8.4.2 Temporary Signs

Y = Permitted

N= Not Permitted

<b>Temporary Use Signs</b>					
<u>For Sale, Rent or Lease Sign</u>					
		All Residential Districts	Downtown Business	General Business	Industrial Districts
		Y	Y	Y	Y
<i>Regulation Sign Use per District</i>					
Maximum Size		4 sq. ft	4 sq. ft	4 sq. ft	4 sq. ft
Maximum Height		6 ft.	6 ft.	6 ft.	6 ft.
Number per Dwelling Unit		1	1	1	1
<u>Architect, Engineer, or Contractor Sign</u>					
		Y	Y	Y	Y
<i>Regulation Sign Use per District</i>					
Maximum Size		4 sq. ft.	4 sq. ft	4 sq. ft	4 sq. ft
Maximum Height		6 ft.	6 ft.	6 ft.	6 ft.
Maximum Number Per Lot		1	1	1	1
Minimum Setback from Lot Line		10 ft.	10 ft	10 ft.	10 ft.
Per Subdivision	Maximum Number	1	N/A	N/A	N/A
	Minimum Setback from Lot Line	10 ft.	N/A	N/A	N/A
<u>Special Event Sign</u>					
		Y	Y	Y	Y
<i>Regulation Sign Use per District</i>					
Additional Condition: Sign must be removed by 72 hours upon completion of the Special Event.					

## 8.5 Prohibited Signs

No person may erect a sign which:

- a. have any flashing lights visible from the outside.
- b. Flashes, rotates, or has motorized moving parts that are visible from a public street.
- c. by reason of its size, location, content, coloring or manner of illumination, constitutes a traffic hazard or a detriment to traffic safety in the opinion of the Building Inspector by obstructing the vision of drivers, or detracting from the visibility of any traffic sign or control device on public streets and roads.
- d. obstructs free ingress to or egress from a required door, window, fire escape or other required exit way or which obstructs a window, door or other opening for providing

- e. Is structurally unsafe.
- f. Constitutes a hazard to safety or health by reason of inadequate maintenance, dilapidation or abandonment.
- g. Is not kept in good repair, or
- h. Is capable of causing electrical shocks to persons likely to come in contact with it.
- i. make use of words such as STOP, LOOK, DANGER, etc., or any phrases, symbols, or characters, in such a manner as to interfere with, mislead, or confuse traffic.
- j. String lights used in connection with commercial premises to commercial purposes other than Christmas decorations.
- k. Uses Spinners, and streamers except as specified in Temporary Sign, section.
- l. now or hereafter existing which no longer advertises a bonafide business conducted or product sold and is to be removed at owner's expense.
- m. Is affixed to a fence, utility pole or structure, or tree,shrub, rock or other natural objects.

**8.6 Variance.**

An application for variance may be filed with the Board of Appeals as allowed in the Town of Ayer By-laws.

**8.7 Maintenance.**

Each sign shall be maintained in a secure and safe condition. If the Building Inspector is of the opinion that a sign is not secure, safe or in good state of repair, he shall give written notice of this fact to the person responsible for the maintenance of the sign. If the defect in the sign is not corrected within the time permitted by the Building Inspector, the Building Inspector may revoke the permit to maintain the sign.

**8.8 Nonconforming Signs.**

Any sign or other advertising (billboard) devices heretofore legally erected may continue to be maintained, provided, however, that no such sign or other advertising device shall be permitted if it is enlarged.

**ARTICLE 9. SPECIAL PROVISIONS**

**9.1 Earth Removal**

**9.1.1 Construction-related, non-commercial removal of sod, loam, sand, gravel, and stone**

- a. Removal of sod, loam, sand, gravel or other earth products in connection with construction of buildings, driveways, parking areas or paved surface installations on the premises for which a permit has

been issued and is in full force and effect, is permitted anywhere in the Town of Ayer, provided that all sod, loam, and top-soil removed in conjunction with the foregoing shall be stock-piled on the premises until completion of the project and that no less than six (6) inches of top-soil remain over the disturbed area. The transfer of sod, loam, top-soil, sand, gravel, clay or stone from one part of a lot to another in the same ownership is permitted.

### **9.1.2 Commercial Earth Removal**

a. The removal for commercial purposes of sod, loam, sand, gravel, clay, stone, or other earth products from the site and from any location within the Town of Ayer to any other location in the town is allowable by special permit provided that:

- 1) The removal would not be contrary to the intent and purpose of the Zoning Bylaw.
- 2) The applicant submits a plan, when required by the Board of Appeals, showing the existing grades in the area from which the above material is to be removed, together with finished grades at the conclusion of the operation, and;
- 3) The plan provides for proper drainage and no bank exceeds a slope of one (1) foot of vertical rise to one and one-half (1 1/2) feet of horizontal scale except in ledge rock.
- 4) The plan shows the extent of the removal proposed and no removal shall take place within twenty (20) feet of a property line except where such permitted removal will result in unsightly or unusable land in which case appropriate grading shall be provided.

b. Applicants intending to remove more than ten (10) cubic yards in one year must obtain approval of the Board of Selectmen under Article XVIII of the town bylaws.

c. At the conclusion of the operation or any substantial portion thereof, the whole area where removal takes place shall be brought up to the grade shown on the plan and seeded. The plan shall show the re-planting required by the Board of Appeals as a condition to the permit.

d. The Board of Appeals shall require the applicant to post a bond with the Town Treasurer in an amount approved by the Board of Appeals, when granting a permit under this section to guarantee conformity with the provisions of the permit issued hereunder.

e. Permits are not needed for removal from a gravel pit which has been in operation within one (1) year prior to the adoption of this bylaw.

## **9.2 Adult Entertainment Enterprises**

**9.2.1 Adult entertainment establishments and businesses promoting adult uses within the town of Ayer.**

It is the purpose and intent of this bylaw to address and mitigate the secondary effects of the adult entertainment establishments and sexually oriented businesses referenced and defined herein. Such secondary effects have been shown to include increased crime, adverse impacts on public health, adverse impacts on the business climate of municipalities, adverse impacts on the property values of residential and commercial properties, and adverse impacts on the quality of life, all of which secondary impacts are adverse to the health, safety, and general welfare of the town of Ayer and its inhabitants.

The provision of this bylaw have neither the purpose nor the intent of imposing a limitation or restriction on the content of all communicative matter or materials, including sexually oriented matter or materials. Similarly, it is not the purpose or intent of this bylaw to restrict or deny access by adults to adult entertainment establishments and to sexually oriented matter or materials protected by the constitution of the United States of America and of the Commonwealth of Massachusetts, nor restrict or deny rights that distributors or exhibitors of such matter or materials. Neither is it the purpose or intent of this bylaw to legalize the sale, rental, distribution, or exhibition of obscene or other illegal matter or materials.”

Based upon the experience of other communities, particularly at the evident problems which existed in those portions of the city of Boston bordering and included within the so-called “Combat Zone”, the town of Ayer find that the proliferation of adult entertainment establishments (as said term is herein defined) will have an adverse effect on the community values. Furthermore, the town finds that adult entertainment establishments, if situated near schools, parks or conservation area, houses of worship, nursery school., day care centers, kindergartens or playground would have an adverse impact on the youth of the town of Ayer.

**9.2.2 General Limitations**

Notwithstanding any term or condition within so-called Table of Use Regulations within the Ayer Zoning Bylaw, or any provisions of said Zoning By-Law or any other provisions of any Ayer Town Bylaw, no adult entertainment establishments, adult bookstore, adult video store, adult motion picture theater and advertising signs or devices may be (i) erected, constructed, placed, altered, converted or otherwise changed in any district other than the Adult use Overlay District or (ii) erected, construed, placed, altered, converted or otherwise changed without the issuance of a Special Permit issued by the Ayer Zoning Board of Appeals or (iii) erected, constructed, placed , altered, converted or otherwise changed if it is within one thousand feet of the line of any lot which contains either an adult entertainment establishment, adult bookstore, adult video store, adult motion picture theater or adult advertising signs or devices.

**9.2.3 Description of District**

The Adult Entertainment Overlay District is established as beginning at the point on the Ayer/Harvard town line at the centerline of Nonacoicus Brook, also known as Bowers Brook or Harvard Stream. The point of beginning lies approximately 640 feet east of at the centerline of Barnum Road when measured along the Ayer/Harvard town line.

Then proceeding westerly along the Ayer/Harvard town line to a point located 200 feet northwest of and perpendicular to the centerline of Barnum Road. Said point lies approximately 280 feet west of the centerline of Barnum road when measured along the Ayer/Harvard town line.

Then proceeding northeasterly along a line 200 feet northwest of and parallel to the centerline of Barnum Road to a point intersecting an imaginary line perpendicular to the intersection of the southeast sideline of Barnum Road with the property line separating Town of Ayer Assessor's Map 34, Parcel 89 and Town of Ayer Map 34, Parcel 90. Said point lies approximately 1050 feet northwest of the Ayer/Harvard line when measured along a line 200 feet northwest of and parallel to the centerline of Barnum Road.

Then proceeding northerly along a line perpendicular to Barnum to the centerline of Third Street.

Then proceeding northerly along the centerline of Third Street to the centerline of Nonacoicus Brook, also know as Bower Brook or Harvard Stream.

Then proceeding easterly along the centerline of Nonacoicus Brook, also known as Bowers Brook or Harvard Stream, to the centerline of Barnum Road.

Then proceeding southerly along the centerline of Nonacoicus Brook, also know as Bowers Brook or Harvard Stream, to the point of beginning.

**9.24 Special Permit considerations for adult entertainment establishments and adult motion picture theaters.**

No special permit may be granted for any adult entertainment establishment or adult motion picture theater unless each of the following conditions are fully satisfied:

- a. Adult entertainment establishments and adult motion picture theaters may not be located less than one thousand feet (1,000) from the nearest lot line of: public or private nursery schools, public or private day care centers, public or private kindergartens, public or private elementary schools, public or private secondary schools, playgrounds, parks, conservation areas, houses of worship, and other adult businesses.
- b. A ten foot-wide landscaped strip shall be provided along the property line fronting a public or private way.
- c. No adult entertainment establishments or adult motion picture theater may be situated on a lot which is less than five thousand square feet nor more than twenty thousand square feet.

- d. Adult entertainment and adult motion picture theaters may not be allowed within a building containing other retail, consumer or residential uses.
- e. A material condition to every special permit with respect to any adult entertainment establishment and adult movie theater shall be that such establishment or theater must cease its business operations between the hours of 1 a.m. and 10 a.m. each day.
- f. No adult entertainment establishment or adult motion picture theater may have visible from outside the establishment or theater any flashing lights.
- g. No adult use shall be allowed to display for advertisement or other purpose any signs, placards, or other like materials to the general public on a freestanding sign or on the exterior of the building or on the interior where the same may be seen through glass or other like transparent material any sexually explicit figures or words as defined in MGL Chapter 272, Section 31.
- h. Each applicant for a special permit to operate an adult entertainment establishment or an adult motion picture theater must provide on a plan submitted with its application adequate parking on the same lot of said establishment or theater in the following ratio: one parking space for every 1.25 persons allowed for said establishment's seating capacity.

**9.2.5 Special Permit consideration for adult bookstore and adult video stores.**

No special permit may be granted for any adult bookstores or adult video stores (collectively said bookstores and video stores hereinafter referred to as "adult merchandise establishments") and no special permit may be granted for any adult use advertisement signs unless each of the following conditions are fully satisfied:

- a. Adult merchandise establishments or adult use advertisement signs may not be located less than one thousand (1,000) feet from the nearest lot line of public or private nursery schools; public or private elementary schools, public or private secondary schools, playgrounds, parks, conservation areas, houses of worship, and other adult businesses.
- b. A ten foot-wide landscaped strip shall be provided along the property line fronting a public or private way.
- c. No adult merchandise establishment may be situated on any lot which is less than five thousand square feet or more than twenty thousand square feet.
- d. Adult merchandise establishments may not be allowed within a building containing other retail, consumer or residential uses.
- e. No adult merchandise establishments shall be located within ten feet of a public or private way and must be set back a minimum of at least ten feet from any property lines (unless applicable zoning regulations provide for a greater setback).

- f. A material condition to every special permit issued with respect to any adult merchandise establishment shall be that such establishment must cease its business operations between the hours of 11 p.m. and 9a.m. each day.
- g. No adult merchandise establishment may have visible from the outside of the establishment or theater any flashing lights.
- h. No adult merchandise establishment shall be eligible to apply for a special permit requesting a free-standing accessory sign.
- i. Adult use advertisement signs may only be located on a building in which there is operating either an adult merchandise establishment, adult entertainment establishment or adult movie theater pursuant to a special permit issued by the Ayer Zoning Board of Appeals.
- j. The highest point on any adult use advertisement sign may be no higher than twenty feet above ground level.
- k. No adult use advertisement sign may contain any moving, flashing or animated lights, or visible moving parts.

**9.2.6 Construction; conflicts**

In the event that the applicable provision of the zoning bylaw set forth in these amended provisions imposes greater dimensional or setback requirements than do the other provisions of the Ayer Zoning Bylaw, the great requirements of the zoning bylaw shall apply. No structure shall contain both an adult merchandise establishment and either an adult entertainment or adult movie theater.

### 9.3 Screening and Buffers

Approved by Attorney General December 10, 1999

a. Screening and buffers shall be required in any Industrial or General Business district which adjoins a residential district. The standards for screening and buffers shall comply with the following:

- 1) This strip shall be at least twenty-five (25) feet in width, shall contain a screen of plantings in the center of the strip not less than three (3) feet in width and six (6) feet in height at the time of occupancy of such lot, and may be part of the yard area. On lots with widths of one hundred seventy-five (175) feet or more, the strip shall be at least thirty-five (35) feet in width.
- 2) Individual shrubs or trees shall be planted not more than three (3) feet on center, and shall thereafter be maintained by the owner or occupants so as to maintain a dense screen year round. At least fifty (50) percent of the plants shall consist of evergreens. Required landscaping, screening and buffers shall be done in accordance with the following table:

**Landscaping and Buffering Standards Table**

STANDARD:	Multi-family	Commercial, Downtown, General Business Districts	Other comments or standards
Open space requirement	50%	Not applicable	
Buffer along public ways	8 feet	8 feet	The buffer strip shall be planted with grass, medium height shrubs, and shade trees. Required sidewalks shall be incorporated into the buffer strip.
Buffer strips along adjacent properties	10 feet in width from adjacent properties	25 feet in width; or 35 feet on lots greater than 175 feet wide	At least 50% evergreen
Height of Screen	5 feet minimum		Solid fence may be substituted up to height of 6 feet
Plantings	5 feet wide		Shade trees shall have a minimum 2-inch caliper

3) A solid wall or fence, not to exceed six (6) feet in height, complemented by suitable plantings, may be substituted for such landscape buffer strips.

b. Additional Landscaping Standards

- 1) If a paved parking surface extends more than eighty (80) feet in width, at least one tree (minimum two (2) inch caliper) per thirty-five (35) parking spaces shall be provided within the area.
- 2) A landscaped buffer strip at least eight (8) feet wide, continuous except for approved driveways, shall be established adjacent to any public road to visually separate

on page 114 shall be incorporated into the  
buffer strip.

- 3) Exposed storage areas, machinery, service areas, truck loading areas, utility buildings and structures and other unsightly uses shall be screened from view from neighboring properties and streets using dense, hardy evergreen plantings, or earthen berms, or wall or tight fence complemented by evergreen plantings. Evergreen plants must be at least two (2) feet tall at planting with the capacity to grow to full screening of the unsightly use. Plantings must be four (4) feet at planting when abutting a residential zone.
  - 4) All landscaped areas shall be properly maintained. Shrubs or trees which die shall be replaced within one growing season.
  - 5) Completion of the landscaping requirements may be postponed for a period not to exceed six (6) months from the time of project completion due to winter weather conditions.
- c. Screening – Health Care Services District
- 1) In the Health Care District, such portions of the perimeter of the District as lie within 50 feet of any parking area constructed after the date hereof shall be landscaped with medium height shrubs planed not more than five (5) feet on center).
  - 2) In the Heath Care Services District, at such time any facility is constructed after the date hereof to a height of more than three stories, those portions of each yard at any perimeter of the District which does not front on a public way shall be screened from adjacent residential districts with landscaping designed to reduce the impact of buildings, parking and other uses within the District upon such adjacent residential districts. Such landscaping shall include a screen of plantings in the center of the yard not less than three (3) feet in width and six (6) feet in height. Individual shrubs shall be planed not more than five (5) feet on center (except where a tree is planted in between, in which case the shrubs may be no more than ten (10) feet on center), and shade trees having a minimum 2-inch caliper being planted.
  - 3) At least 50% of the plants and trees in the screens required under paragraph 1 and 2 hereof shall consist of evergreens. After completion, such landscaping thereafter shall be maintained by the owner of the land on which such screen is located so as to maintain a screen year-round. Completion of the landscaping requirements may be postponed for a period not to exceed six (6) months from the time of completion of the parking or building due to weather conditions.

## 9.4 Commercial Development Performance Standards

Approved by Attorney General December 10, 1999

In order to receive site plan approval, all projects or uses must demonstrate compliance with the Commercial Development Performance Standards herein, and abide by the Environmental Performance Standards set forth in Article 9, Section 9.5 on page 116 .

a. Standards that apply to projects or uses in the Downtown Business District, and General Business District

1) Appearance/Architectural Design Standards

(a) Architectural design shall be compatible with the character and scale of buildings in the town through the use of appropriate building materials, screening, breaks in roof and wall lines and other architectural techniques. Variation in detail, form and siting shall be used to provide visual interest and avoid monotony. Proposed buildings shall relate harmoniously to each other with adequate light, air, circulation and separation between buildings. The Planning Board may take into consideration whether exterior building facades and materials are consistent with Ayer's character. For example, exterior materials such as wood or metal or vinyl clapboards or stone or brick, and treatment compatible on all four sides, are considered consistent with Ayer's character. The Planning Board may consider whether the roofline is peaked, or is otherwise consistent with the town's character.

(b) The Planning Board may adopt such regulations as may be necessary to further specify design standards.

2) Lighting Standards

(a) Any outdoor lighting fixture newly installed or replaced shall be shielded so that it does not produce a strong, direct light beyond the property boundaries.

(b) No light standard shall be taller than fifteen (15) feet.

3) Access Standards

(a) Curb cuts shall be limited to the minimum width for safe entering and exiting and shall in no case exceed 24 feet in width, per lane.

(b) All driveways shall be designed to afford motorists exiting to highways with safe sight distance.

(c) Adequate pedestrian and bicycle access shall be provided as follows:

(1) Sidewalks shall be provided to enable pedestrian access to adjacent properties, and between individual businesses within a development. The appropriate authority may waive this requirement in a case where such action is in the public interest and not inconsistent with the purposes stated in the Special Permit or Site Plan Approval sections. The appropriate authority for by-right uses is

the Building Inspector, for uses by Site Plan Approval, the appropriate authority is the Planning Board.

- 4) Applicants for projects or uses within the GBD must demonstrate that the project or use will minimize traffic and safety impacts on highways.

- (a) The number of curb cuts on state and local roads shall be minimized. To the extent feasible, access to businesses shall be provided via one of the following:

- (1) Access via a common driveway serving adjacent lots or premises
    - (2) Access via an existing side street
    - (3) Access via cul-de-sac or loop road shared by adjacent lots or premises.

- (b) One driveway shall be permitted as a matter of right per business or per project, if a project includes several businesses within a structure or group of structures. Entering and exiting lanes shall be separated by a median strip. Where deemed necessary by the appropriate authority, two driveways may be permitted as part of the Site Plan Approval process which shall be clearly marked "entrance" and "exit". The appropriate authority for by-right uses is the Zoning Enforcement Officer, and for uses by Site Plan Approval, the appropriate authority is the Planning Board.

b. Standards That Apply to Projects or Uses in General Business Districts

Projects or uses in the General Business District must abide by the standards in this section in addition to the standards set forth in Article 9, Section 9.4 (a) on page 114.

- 1) Traffic Impact Statement

- (a) A traffic impact statement shall be prepared, which shall contain:

- (1) Traffic flow patterns at the site including entrances and egresses, loading and unloading areas, and curb cuts on site and within one hundred feet of the site.

- (2) A detailed assessment of the traffic safety impacts of the proposed project or use on the carrying capacity of any adjacent highway or road, including the projected number of motor vehicle trips to enter or depart from the site estimated for daily hour and peak hour traffic levels, road capacities and impacts on intersections.

- (3) Adequate pedestrian and bicycle access shall be provided as follows: Sidewalk shall be provided to provide access to adjacent properties and between individual businesses within a development.

- (b) An additional traffic impact statement shall be prepared by projects over ten thousand (10,000) square feet, which shall contain:

- (1) A plan to minimize traffic and safety impacts through such means as physical design and layout concepts, staggered employee work schedules, promoting use of public transit or carpooling, or other appropriate means.

- (2) An interior traffic and pedestrian circulation plan designed to minimize conflicts and safety problems.

## 9.5 Environmental Performance Standards

Approved by Attorney General December 10, 1999

Any use permitted by right or special permit in any district shall not be conducted in a manner as to emit any dangerous, noxious, injurious, or otherwise objectionable fire, explosion, radio active or other hazard; noise or vibration, smoke, dust, odor or other form of environmental pollution; electrical or electro-magnetic, or other disturbance; glare; liquid or solid refuse or wastes; conditions conducive to the breeding of insects, rodents, or other substance; conditions or element in any amount as to affect adversely the surrounding environment. The following standards shall apply:

### a. Emissions

- 1) Emissions shall be completely and effectively confined within the building, or so regulated as to prevent any nuisance, hazard, or other disturbance from being perceptible (without the use of instruments) at any lot line of the premises on which the use is located.
- 2) No emission which can cause any damage to health of animals or vegetation or which can cause excessive soiling, at any point, shall be permitted.
- 3) No emission of odorous gases or odoriferous matter in such quantities as to be offensive shall be permitted. Any process which may involve the creation and/or emission of any odors shall be provided with a backup safeguard system in the event that the primary systems fail.

### b. Erosion Control

Erosion of soil and sedimentation of watercourses and water bodies shall be minimized by employing the following "best management" practices:

- 1) Exposed or disturbed areas due to stripping of vegetation, soil removal, and regarding shall be permanently stabilized within six months of occupancy of a structure.
- 2) During construction, temporary vegetation and/or mulching shall be used to protect exposed areas from erosion. Until a disturbed area is permanently stabilized, sediment in runoff shall be trapped by using staked hay bales or sedimentation traps.
- 3) Permanent erosion control and vegetative measures shall be in accordance with erosion/sedimentation vegetative practices recommended by the Soil Conservation Service.
- 4) All slopes exceeding fifteen (15) percent resulting from the site grading shall be either covered with four (4) inches of topsoil and planted with a vegetative cover sufficient to prevent erosion or be stabilized by a retaining wall.
- 5) Effective dust control shall be used during grading operations if the grading is to occur within 200 feet of an occupied residence or place of business or public way.

c. Discharge

No discharge, at any point, into a private sewer system stream or the ground of any material in such a way, or of such a nature or temperature as can contaminate any running stream, water supply or otherwise cause the emission of dangerous or objectionable elements and accumulation of wastes conducive to the breeding of rodents or insects shall be permitted.

d. Glare

No direct or sky-reflected glare, whether from floodlights or from high temperature processes such as welding shall be permitted beyond its lot lines onto neighboring properties, or onto any street.

e. Hazardous Activities

- 1) No activities that emit dangerous radioactivity, at any point; no electrical disturbance adversely affecting the operation at any point, of any equipment, other than that of the creator of such disturbance, shall be permitted.
- 2) All activities that involve hazardous materials at any point shall be provided with adequate safety devices against fire and explosion and adequate fire-fighting and fire-suppression devices and equipment in accordance with state regulations.

f. Hazardous Materials Storage

- 1) All outdoor storage facilities for fuel, chemicals, chemical or industrial wastes, and potentially harmful raw materials, shall be located on impervious pavement, and shall be completely enclosed by an impervious dike which shall be high enough to contain a volume of liquid kept within the storage area, at least equal to one hundred ten (110) percent of the capacity of the container(s), so that such liquid shall not be able to spill onto or seep into the ground surrounding or under the paved storage area. Storage tanks for "home heating oil" and diesel fuel, not exceeding two hundred seventy-five (275) gallons in size, may be exempted from this requirement.
- 2) All storage of hazardous materials, at any point shall be provided with adequate safety devices against fire and explosion and adequate fire-fighting and fire-suppression devices and equipment.

g. Noise

Excessive noise at unreasonable hours shall be required to be muffled so as not to be objectionable due to the intermittence, beat frequency, shrillness or volume.

h. Stormwater Management

To the extent feasible, measures for run-off from impervious surfaces should be designed to meet the following objectives in an appropriate manner:

- 1) prevent non-point sources pollution from urban runoff to streams, water bodies or groundwater;
- 2) prevent flooding of neighboring or other down-gradient properties;
- 3) promote recharge of groundwater aquifers, while preventing pollutants from entering groundwater. Appropriate recharge or detention methods may include: detention basins; vegetated swales; filter media; oil/water separators or other similar methods. Stormwater runoff design shall be in harmony with existing regulations set forth by the Town of Ayer and the Commonwealth of Massachusetts.

i. Vibration

No offensive vibration shall be permitted at any time.

## **ARTICLE 10. SITE PLAN REVIEW**

Approved by Attorney General September 18, 1989

Amended and approved by Attorney General December 10, 1999.

### **10.1 Purpose**

The purpose of site plan approval is to further the purposes of this bylaw and to ensure that new development is designed in a manner which reasonably protects visual and environmental qualities of the Town of Ayer, and to assure adequate drainage of surface water and safe vehicular access.

### **10.2 Projects Requiring Site Plan Approval**

No special permit as defined in Article 11, Section 11.2, Subsection 11.2.1 on page 125 of the Zoning Bylaws of the Town of Ayer, and no occupancy permit as defined in Article 11, Section 11.1, Subsection 11.1.3 on page 125 of the Zoning Bylaws of the Town of Ayer, and no building permit as defined in the Massachusetts State Building code 780CMR Section 114 shall be issued for any of the following uses:

- a. The construction or external enlargement of a commercial or industrial structure having a gross floor area exceeding 1200 square feet or a building volume greater than 30,000 cubic feet.
- b. The construction or enlargement of a parking area having eight or more spaces;
- c. Residential developments requiring approval under the Subdivision Control Law (MGL C 41)
- d. Any other use specified in the Schedule of Use Regulations as referred in the Town of Ayer Zoning Bylaws as amended which indicates a Site Plan Approval is required.

Unless a site plan has been endorsed by the Planning Board, after consultation with other boards, including but no limited to the following: Building Commissioner, Board of Health, Board of Selectmen, Conservation Commission, Town Engineer, Fire Department, and Police Department, the Planning Board may waive any or all requirements of site plan review for external enlargements of less than 25% of the existing floor area.

### **10.3 Application**

- a. Each application for Site Plan Approval shall be submitted to the Planning Board by the project developer, accompanied by twelve (12) copies of the site plan. The Planning Board shall, within fifteen (15) days, transmit one copy each to the Building Commissioner, Board of Health, Conservation Commission, Board of Selectman, Town Engineer, Fire Department and Police Department.
- b. The Planning Board shall obtain with each sufficient to cover any expenses connected with a public hearing not to exceed three hundred dollars (\$300.00). Any excess sums shall be returned to the applicant when the review is complete.

## 10.4 Required Site Plan Contents

All site plans shall be prepared by a registered architect, landscape architect, or professional engineer unless this requirement is waived by the Planning Board because of unusually simple circumstances. All site plans shall be on standard 24" x 36" sheets and shall be prepared at a sufficient scale to show:

- a. The location of boundaries of the lot, abutting streets or ways, and the location and owners' names of all abutting properties and access to the nearest accepted public way.
- b. Existing and proposed topography including contours, the location of wetlands, streams, water bodies, drainage swales, areas subject to flooding, and unique natural land features.
- c. Existing and proposed structures, including dimensions and elevations.
- d. The location of existing and proposed parking and loading areas, driveways, walkways, access and egress points.
- e. The location and description of all existing and proposed septic systems, water supply, storm drainage systems, utilities, and refuse and other waste disposal methods.
- f. Proposed landscaped features including the location and description of screening, fencing, and plantings.
- g. The location, dimensions, height, and characteristics of proposed signs.
- h. The location and description of proposed open space or recreation areas.
- i. The locations, height, intensity and bulb type of all external lighting fixtures. The direction of illumination and methods to eliminate glare onto adjoining properties and illumination of sky area, must also be shown.
- j. Plans to prevent pollution of surface or groundwater; erosion of soil both during and after construction; excessive run-off; excessive raising or lowering of the water table; and flooding of other properties, as applicable.
- k. Zoning district boundaries within five hundred (500) feet of the site's perimeter shall be drawn and identified on the plan. Such features may be shown as a key map on the detail plan itself.
- l. Traffic flow patterns within the site, entrances and exits, loading and unloading areas, size and location of curb cuts on the site and within one hundred (100) feet of the site. Include the possible organization of traffic channels, acceleration and deceleration lanes, additional width or other means necessary to prevent difficult traffic situations. A detailed Traffic Impact Statement is required in each case where a proposed new building, use or project will contain more than 10,000 square feet, or will include one of the following uses which generates high volumes of trips: convenience stores; drive-in or drive up facilities; automotive service station; or bank. The Traffic Impact Statement shall contain:
  - 1) The projected number of motor vehicle trips to enter or leave the site, estimated for daily and peak hour traffic levels;
  - 2) The projected traffic flow pattern including vehicular movements at all major intersections likely to be affected by the proposed use of the site and entrances and egresses, loading and unloading areas, and curb cuts on site and within one hundred (100) feet of the site.
  - 3) A detailed assessment of the traffic safety impacts of the proposed project or use on the carrying capacity of any adjacent highway or road, including the projected number of motor vehicle trips to enter or depart from the site estimated for daily hour and peak hour traffic levels, road capacities, and impacts on intersections.

4) A plan to minimize traffic and safety impacts through such means as physical design and layout concepts, staggered employee work schedules, promoting use of public transit or carpooling, or other appropriate means.

5) An interior traffic and pedestrian circulation plan designed to minimize conflicts and safety problems.

m. For new buildings, uses or projects, a table containing the following information must be included:

1) area of building to be used for a particular use such as retail operation, office, storage, etc.

2) maximum number of employees;

3) maximum seating capacity, where applicable;

4) number of parking spaces existing and required for the intended use.

n. Elevation plans of a scale of one-quarter (1/4) inch equals one foot for all exterior facades indicating pertinent design features and type of materials to be used.

The Planning Board may require that additional information be shown on any site plan submitted with an application for a Site Plan Approval. The Planning Board may also waive any of the above requirements as they deem necessary or appropriate in particular cases.

The contents of the site plan shall be made available at the Ayer Public Library at the proponent's expense.

#### **10.5 Procedure for Site Plan Review**

a. The Planning Board shall refer copies of the application within fifteen (15) days to the Conservation Commission, Board of Health, and Building Commissioner, who shall review the application and submit their recommendations and comments to the Planning Board. Failure to make recommendations within thirty-five (35) days of the referral of the application shall be deemed to be a lack of opposition.

b. The Planning Board shall hold a public hearing within sixty-five days of the receipt of an application and after due consideration of the recommendations the Board shall take final action within ninety (90) days from the time of the hearing. Failure to take final action within the defined time period shall be deemed to be an approval of the site plan and the Planning Board shall endorse the site plan upon request of the applicant.

c. The period of review for a special permit requiring site plan approval shall be the same as any other special permit and shall conform to the requirements of MGL C 40A, S9, "Special Permits". Specifically: a joint public hearing to address the Special Permit application and Site Plan Approval application shall be held within sixty-five (65) days of the filing of the special permit application with the Planning Board or Zoning Board of Appeals. The Planning Board shall then have ninety (90) days following the public hearing in which to act.

#### **10.6 Site Plan Review Criteria**

The following criteria shall be considered by the aforementioned Boards in the review and evaluation of a site plan, consistent with a reasonable use of the site for the purposes permitted or permissible by the zoning bylaws of the district in which it is located:

- a. If the proposal requires a special permit, it must conform to the special permit requirements as listed in subsection 10.5 c.
- b. The development shall be integrated into the existing terrain and surrounding landscape, and shall to the extent feasible:
  - 1) minimize use of wetlands, steep slopes, floodplains, hilltops;
  - 2) minimize obstruction of scenic views from publicly accessible locations;
  - 3) minimize tree, vegetation, and soil removal and grade changes;
  - 4) maximize open space retention;
  - 5) screen objectionable features, both visual and audible, from neighboring properties and roadways.
- c. Variation in detail, form, and siting shall be used to provide visual interest and avoid monotony.
- d. The plan shall maximize the convenience and safety of vehicular and pedestrian movement within the site and in relation to adjacent ways. The plan shall describe estimated average daily and peak hour vehicle trips to be generated by the site and traffic flow patterns for vehicles and pedestrians showing adequate access to and from the site and adequate circulation within the site.
- e. The site plan shall show adequate measures to prevent pollution of surface or groundwater, to minimize erosion and sedimentation, and to prevent changes in groundwater levels, increased runoff, and potential for flooding. Drainage shall be designed so that runoff onto abutting properties shall not be increased, and abutting properties will not be adversely affected.
- f. Exposed storage areas, machinery, service areas, truck loading areas, utility buildings and structures, and other unsightly uses shall be set back or screened to project the neighbors from objectionable features.
- g. The site plan shall comply with all zoning requirements for parking, loading, dimensions, environmental performance standards, and all other provisions of this bylaw.
- h. The site plan shall comply with applicable sections of the zoning bylaw including Article 7, Section 7.2 Multifamily Dwellings Requirements on page 96, Article 3, Section 3.3.2.1, Subsection e. 1) Downtown Business Development Methods on page 30, Article 3, Section 3.3.2.2, Subsection e. 1) General Business Development Methods on page 30, Article 9, Section 9.3 Screening and Buffers on page 112, Article 9, Section 9.5 Environmental Performance Standards on page 116, and Article 9, Section 9.4 Commercial Development Performance Standards on page 114.

Before approval of a site plan, the Planning Board may request the applicant to make modifications in the proposed design of the project to ensure that the above criteria are met.

## 10.7 Final Action

The Planning Board's final action shall consist of either:

- a. a determination that the proposed project will constitute a suitable development and is in compliance with the criteria set forth in the bylaw;
- b. A written denial of the application stating the reasons for such denial;
- c. Approval subject to any conditions, modifications, and restrictions as the Planning Board may deem necessary to bring the site plan into compliance with this bylaw.

## **10.8 Enforcement**

- a. The Planning Board may require the posting of a bond to assure compliance with the plan and conditions and may suspend any permit or license when work is not performed as required.
- b. Any site Plan Approval issued under this bylaw shall lapse within two (2) years if a substantial use thereof has not commenced sooner or if construction shall not have begun except for good cause
- c. The Building Commissioner has the authority to halt development if violations exist. The applicant may then appeal to the Planning Board.

## **10.9 Section 9 – Appeal**

The appeal of any decision of the Planning Board hereunder shall be made in accordance with the provisions of Mass General Law Chapter 40A, section 17.

Added and approved by Attorney General September 17, 2001.

## **Article 11. ADMINISTRATION**

### **11.1. Enforcement.**

This by-law shall be enforced by the enforcing officer if and when appointed, or by the Board of Selectmen, who shall grant no permit for the construction, alteration, relocation, occupancy or use of any building, structure, or premises in violation of any provision of this bylaw.

With each application for a permit to build, there shall be filed a plan showing the lot, the area, and location of said lot and building or buildings thereon. No building hereafter erected, altered or relocated shall be used and no change shall be made of the use of any building or any parcel of land, except for the use of land for agriculture, horticulture or floriculture, unless an occupancy permit signed by the enforcing officer or the Board of Selectmen has been granted to the owner occupant of such land or building. Such permit shall not be granted unless the proposed use of the land or building and all accessory uses comply in all respects with this by-law and no use shall be made of such land or building except the use or uses authorized by such occupancy permit. Whenever any permit or license is refused because of some provision of this by-law, the reason therefore shall be clearly stated in writing to the applicant.

#### **11.1.1 Violations.**

If the enforcing officer or Board of Selectmen shall be informed or have reason to believe that any provision of this by-law has been, is being, or may be violated, he shall make or cause to be made an investigation of the fact and inspect the premises where such violation may exist. If he shall find any such violation, he shall give notice thereof in writing to the owner or to his duly authorized agent and to the occupant of the premises, and shall order that any use of any premises contrary to the provisions of this by-law shall immediately cease. If the violations continue after notice in writing has been furnished to the owner of the premises or to her or his or its duly authorized agent, the violator shall be guilty of a misdemeanor, and on conviction thereof shall be fined in an amount not less than twenty dollars to not less than one hundred dollars. Each day in which any such violation shall continue shall be deemed a separate offense. The First District Court of Northern Middlesex shall have jurisdiction and may continue appropriate cases in the Court's discretion without a finding.

#### **11.1.2 Legal Proceedings.**

If, after such notice, the premises are continued to be used in a manner contrary to the provisions of this by-law, or if any such owner or occupant shall fail to obey any lawful order of the enforcing officer or Board of Selectmen in respect to any violation or use contrary to the provisions of this by-law, the enforcing officer, with the approval of the Board of Selectmen, may, and if required by them, shall institute appropriate legal proceedings to enforce the provisions of this by-law or to restrain by injunction any violation thereof, or both, and revoke the permit for occupancy, institute and take any and all such action as may be necessary to enforce the provisions of this by-law.

### **11.1.3 Occupancy Permits.**

All buildings hereafter erected, altered or relocated and all changes made of the use of any building or any parcel of land, shall require a permit signed by the enforcing officer or the Board of Selectmen. Such permit shall be granted only when the proposed use of land or building and all accessory uses comply in all respects with this by-law and no use shall be made of such land or building except the use or uses authorized by such occupancy permit.

## **11.2 Zoning Board of Appeals.**

A Zoning Board of Appeals consisting of five (5) members and two (2) associate members, who shall be residents of the Town of Ayer, shall be appointed as provided in Section Twelve (12) of chapter Forty A (40A) of the General Laws, as amended. The Board shall act on all matters within its jurisdiction under this bylaw in the manner prescribed in said section twelve of Chapter 40A and subject always to the rule that it shall give due consideration to promoting the public health, safety, convenience and welfare, and to encouraging the most appropriate use of the land and conserving property values; and that it shall permit no building or use of land or building that is injurious, noxious, offensive or detrimental to a neighborhood, and it shall prescribe appropriate conditions and safeguards in each case. The Board of Selectmen of the Town of Ayer shall appoint the Zoning Board of Appeals. The Zoning Board of Appeals shall be the Special Permit granting authority in the Town of Ayer except where otherwise specified in this by-law. The general powers and duties of the Board of Appeals are specified in Sections 11.2, subsections 11.2.1, 11.2.2 and 11.2.3 inclusive.

### **11.2.1 Special Permits.**

- a. The Zoning Board of Appeals may issue special permits for specific types of uses which shall only be permitted in specified districts as provided in this Zoning By-Law. Special permits may be issued only for uses which are in harmony with the general purpose and intent of the Zoning By-Law, and shall be subject to general or specific provisions set forth therein; and such permits may also impose conditions, safeguards and limitations on time or use.
- b. The Zoning Board of Appeals or other special Permit Granting Authority may issue special permits only following public hearings held within sixty-five days after filing of an application with the special permit granting authority, a copy of which shall forthwith be given to the town clerk by the applicant.
- c. Such special permit granting authorities shall adopt and from time to time amend rules relative to the issuance of such permits, and shall file a copy of said rules in the office of the town clerk. Such rules shall prescribe a size, form, contents, style and number of copies of plans and specifications and the procedure for a submission and approval of such permits. Special permit granting authorities shall act within ninety days following a public hearing for which notice has been given by publication or posting as provided in section eleven of Chapter 40A of the Mass. Gen. Laws and by mailing to all parties in interest. Failure by a special permit granting authority to take final action upon an application for a special permit within said ninety days following the date of public hearing shall be deemed to be a grant of the permit applied for.

d. All special permits granted under this section shall lapse within two years, including such time required to pursue or await a determination of an appeal pursuant to the provisions of Mass. Gen. Laws, Chapter 40A, from the grant thereof if a substantial use thereof has not sooner commenced, except for good cause or, in the case of a permit for construction, if construction has not begun by such date except for good cause.

### **11.2.2 Permits for Scientific Research.**

Uses not on the same parcel as activities permitted as a matter of right, accessory to activities permitted as a matter of right, which activities are necessary in connection with scientific research or scientific development or related production, may be permitted upon the issuance of a special permit provided the granting authority finds that the proposed accessory use does not substantially derogate from the public good.

### **11.2.3 Variances.**

a. The permit granting authority shall have the power after public hearing for which notice has been given by publication and posting as provided in Mass. Gen. Laws, Chapter 40A Section 11 and by mailing to all parties in interest to grant upon appeal or upon petition with respect to particular land or structures a variance from the terms of the applicable zoning by-laws provision where such permit granting authority specifically finds that owing to circumstances relating to the soil conditions, shape, or topography of such land or structures and especially affecting such land or structures but not affecting generally the zoning district in which it is located, a literal enforcement of the provisions of the Zoning By-Law would involve substantial hardship, financial or otherwise, to the petitioner or appellant, and that desirable relief may be granted without substantial detriment to the public good and without nullifying or substantially derogating from the intent or purpose of such Zoning Bylaw.

b. The Zoning Board of Appeals may grant use variances.

c. The permit granting authority may impose conditions, safeguards and limitations both of time and of use, including the continued existence of any particular structures but excluding any condition, safeguards or limitations based upon the continued ownership of the land or structures to which the variance pertains by the applicant, petitioner or any owner.

d. If the rights authorized by a variance are not exercised within one year of the date of grant of such variance they shall lapse, and may be re-established only after notice and a new hearing pursuant to this Section D.

### **11.2.4 Standing To Appeal to the Special Permit Granting Authority**

An appeal to the Special Permit Granting authority may be taken by any person aggrieved by reason of his inability to obtain a permit or enforcement action from any administrative officer under the provisions of Mass. General Laws, Chapter 40A, by the regional planning agency in whose area the town is situated, or by any person including an officer of a board of

the town, or of an abutting city or town aggrieved by an order or decision of the inspector of buildings, or other administrative official, in violation of any provision of this bylaw or in violation of Mass. General Laws, Chapter 40A.

### **11.3 Amendments to this Bylaw.**

This bylaw including the Zoning district boundary lines may only be changed by adoption of an amendment or addition or repeal in the manner provided for in Mass. General Laws, Chapter 40A, Section 5.

### **11.4 Validity.**

The invalidity of any section or provision of this bylaw shall not invalidate any other section or provision thereof.

When this bylaw imposes a greater restriction of the use of buildings, structures, or premises, or on height of buildings, or requires larger yards, or open spaces than are imposed or required by any regulations or permits, or by any restrictions, easements, covenants or agreements, the provisions of this bylaw shall control.

### **11.5 RATE OF DEVELOPMENT**

Approved by the Attorney General May 9, 2006

#### **11.5.1 Purpose**

The Purpose of this By-law, "Rate of Development" is to ensure that future growth occurs in an orderly and planner manner; to phase growth so that it will not unduly strain the community's ability to provide adequate public safety, schools, roads, municipal infrastructure, and human services; to maintain the community at a quality of life which citizens expect; to provide the Town Boards and its agencies, information, time and capacity to incorporate such growth into or, community character and the value of property.

#### **11.5.2 General**

Beginning on 10<sup>th</sup>, June 2006, building permits, including foundation permits, for not more than Thirty (30) dwelling units shall be applied for or issued in each of the Five (5) years following said date, for the construction of new residential dwelling units, per approved ANR and/or standard or cluster sub-division. Further, no one person or entity nor their successors in interest, nor any entity in which they hold a legal or beneficial ownership shall be issued more than Five (5) of the total number of permits available in any one year, with the exception of the exemptions as described in Section D of this By-law.

“Dwelling Unit” shall mean any portion of a building occupied or suitable for occupancy as a residence and arranged for the use of one or more individuals living as a single housekeeping unit with its own cooking, living, sanitary and sleeping facilities.

### **11.5.3 Procedures**

Any building permits issued shall be issued in accordance with the following procedures.

- a. The building Inspector shall act on each permit in order of submittal. Any permit application that is incomplete or inaccurate shall be returned to the applicant within Three (3) business days and shall require new submittal.
- b. The Building Inspector shall accept applications and issue permits One (1) year at a time.
- c. The Building Inspector shall mark each application with the time and date of submittal.
- d. Any issued permit shall conform to the time limits set by the appropriate existing Section.
- e. Any building permits not issued in any calendar year (1<sup>st</sup> January – 31<sup>st</sup> December) shall NOT be available for issuance in any subsequent year.
- f. At the end of each calendar year that this By-law is in effect, the Building Inspector shall retain all applications for which a building permit has NOT been issued. Upon being informed, in writing, by the applicant before the 10<sup>th</sup>. January of the succeeding year that the applicant desires the application to remain in effect, the Building Inspector shall treat said application in accordance with Section b. above.

### **11.5.4 Exemptions**

The provisions of this Section shall NOT apply to, nor limit in any way, the granting of building permits or occupancy permits required for enlargements, including so called “Mother in Law apartments”, restoration, or reconstruction of existing dwellings existing on lots as of the date of passage of this By-law.

- a. Dwelling units for low or moderate income families or individuals, where all of the following conditions are met:
  - 1) Occupancy of the units is restricted to households qualifying under the Local Initiative Program as administered under the Massachusetts Department of Housing and Community Development.
  - 2) The affordable units are subject to a properly executed and recorded deed restriction running with the land which shall limit each succeeding resale price to an increase of Ten percent (10%)

plus any increase in the Consumer Price Index, plus cost of any improvements certified by the Building Inspector.

b. Dwelling units for Senior residents, where the occupancy of the units is restricted to Senior persons through a properly executed and recorded deed restriction running with the land. For the purposes of this Section, "Senior" shall mean any person over the age of Fifty-five (55).

c. Development projects which voluntarily agree to a minimum of Twenty-five percent (25%) permanent reduction in buildable lots permitted under an approved subdivision plan. Such a developer shall be eligible for a maximum of Five (5) exempt building permits per year within the said sub-division.

d. Person or entity is entitled to One (1) permit, on One (1) lot, per year, on a lot the person or entity owns at the time of the acceptance of this By-law.

e. Beginning on 10<sup>th</sup>, June 2006, through 31<sup>st</sup>, December 2006, no more than twenty (20) building permits may be granted under the provisions of this By-law.

#### **11.5.5 Time Limit and Extension**

This Section shall expire on 10<sup>th</sup>, June 2011, provided however that this Section may be extended without lapse of its provisions and limitations, by vote of the Town Meeting prior to 11<sup>th</sup>, June 2011.

#### **11.5.6 Separability**

The provisions of this By-law are hereby declared separable, and if any provision shall be held to be invalid or unconstitutional, it shall NOT be construed to affect the validity of constitutionality of any of the remaining provisions of this By-law.

-

## Minimum documentation and drawings required for Residential Building Permits

---

Effective 1, Jan., '99, the following minimum drawings and documentation are required to be submitted with all building permit applications. These requirements apply to all residential construction including but not necessarily limited to, renovations, additions, detached/accessory structures, and new homes.

See separate requirements for commercial construction and projects which are subject to Construction Control under the Mass State Building Code Sixth Edition.

---

### Required documentation:

1. Building Permit Application  
This form must be filled out completely.  
Copies of your builders Construction Supervisors License, Home Improvement Contractor Registration, and a photo ID  
NOTE: If the home owner chooses to use a contractor who does not have a Home Improvement Registration, they must sign the WAIVER OF RIGHTS letter and submit it with the permit application.  
This letter can be obtained at the Building Commissioner's Office.
2. Zoning Board of Appeals  
If a variance or special permit was granted for this project, submit a copy of the decision, with a Certificate of No Appeal certified by the Town Clerk as true copy, along with a copy of the filing with the Registry of Deeds
3. Planning Board  
If a site plan approval was required for this project, submit copies of all drawings, and documents as approved by the Planning Board. These documents must be signed by the Planning Board, or must be referenced in an approval letter. All documents must be certified by the Town Clerk as true copies.

4. Conservation Commission Approvals:  
If your project is within 100 feet of a Wetland or within a designated Flood Plain, it will required approval from the Conservation Commission. Submit a copy of the Order of Conditions, along with all approved drawings.  
All documents must be certified by the Town Clerk as true copies.
5. Flood Plain Construction Approval  
If your project is located within a designated Flood Plain, a Special Permit issued by the Zoning Board of Appeals, and an Order of Conditions issued by the Conservation Commission are required.  
Refer to item No. 2 and 4 for documentation requirements.  
The Building Department should have made a preliminary review of your proposed construction prior to your hearing with the Zoning Board of Appeals.  
Submit a copy of the Building Department's approval letter.
6. DPW Approvals  
For new homes, and bedroom additions, submit a copy of the Water and Sewer connection permits
7. Board of Health Approvals  
For new homes located in areas of the town not yet serviced by public sewerage, submit a copy of the approved septic plan and a copy of the Septic Permit.  
This permit must be in the owner's name and not more than 2 years old.
8. Well Water  
For new homes located in areas of the town not yet serviced by public water, submit a copy of the well test.  
This test report must be from a Ma. approved testing lab. and not more than 12 months old.  
NOTE: The Coliform Bacterial count on this test must be reported as either ABSENT or 0/ml.  
Any presents of coliform bacteria is not acceptable.
9. Preliminary Plot Plan  
For a new house this drawing must show all property lines, and the proposed house location with dimensions from the house to all property lines.  
For additions and accessory structures, this drawing must show all property lines, the location of the existing house, with dimensions to all lot lines. The location of the new addition or accessory building and dimensions to all lot lines.  
This drawing must be of sufficient detail and accuracy to determine zoning set-back compliance.  
Further, this drawing must show any wet land areas on, or abutting the property, and any easements.

10. Professional Engineering Certifications

If your project contains any steel beams, engineered lumber, floor or roof truss systems, vaulted or cathedral ceilings, post 'n' beam framing, or any other unusual construction, Certification by a Ma. licensed professional engineer is required.

The engineer you select must be qualified if performing the engineering analysis for the materials or system to be certified.

The Engineering Certification will include, but not be limited to, all design live and dead loads, calculations, free body diagrams, sketches, connections details, and specifications.

Further the Certification will be site specific. A generic certification will NOT be acceptable.

The documents submitted will bear an original seal and signature of the engineer of record.

No documents with photo copied seals and signatures will be accepted.

No FAX copies will be accepted

NOTE Ayer is located in Snow Zone 3, ( 35psf live load.)

11. Modular homes

The following additional documents are required for building permit applications which are submitted for the construction of Modular Homes:

- a. Copy of the state certification of the Modular Home Company.  
This must be a current certification document.
- b. Copy of the certification of the installation crew.
- c. A complete set of drawings with state approval stamps.

The foundation plan cannot be generic, it must be site specific.

This drawing must show such items, but not limited to: top of foundation, elevation changes, steps in footings, walk out basement areas, reinforcing as may be necessary for site conditions along with engineering certification  
Refer to drawing requirements for additional information.

**NOTE: A home owner cannot obtain a building permit to construct their own modular home .**

12 Energy Code Compliance

The applicant must demonstrate that the proposed structure is in compliance with the Mass State Building Code energy requirements of Appendix 'J'.

Compliance may be demonstrated in the following forms:

- a. Prescriptive package:  
Photo copy the applicable section of Table J5.2.1b of Appendix 'J'.
- b. Manual Trade-Off Work Sheet  
There is a blank copy of this work sheet in Appendix 'J'.  
Photo copy work sheet, fill out completely.  
Submit additional supporting data as required to support work sheet calculations.
- c. MAScheck software  
The required energy calculations can be performed on this software package.  
Further the software will print out an energy report and appropriate inspection check list.  
Submit additional supporting data as required to support MAScheck input data.
- d. Additions to existing structures  
On 15,Jun.,'98 the energy code was amended to accommodate additions as follows:
  - 1- Additions with less than 40% glazed area  
If other compliance alternatives fail to meet the energy code requirements, then the prescriptive package outlined in Table J1.1.2.3.1 may be used.  
Refer to J1.1.2.3.1. for details.
  - 2- Additions with greater than 40% glazed area may claim the sun room exemption. If this exemption is used, the OWNER (not any agent) must sign the 'Consumer Information Form'. This form must be submitted with the permit application package.

**Required drawings:**

The following is a list of the minimum requirements for drawings to be submitted with your application package. This list should not be considered all inclusive. You should submit additional drawings, sections, details, calculations, engineering certifications, etc., as may be necessary to fully demonstrate building code and zoning compliance for your proposed project.

13 General

- a. Drawings will be submitted on WHITE BOND paper only, back rolled.  
DO NOT FOLD Two (2) complete sets of plans required.
- b Drawing size to be 11" x 17", 18" x 24" or 24" x 36" only.
- c All drawings will be to standard architectural scales as follows:  
1/8" = 1'-0" 1/4" = 1'-0" or 1/2" = 1'-0"  
Sections and details should be drawn to architectural scales of sufficient size to show required details.
- d Drawings must be SITE SPECIFIC.  
Generic plans and foundations will not be acceptable.  
Refer to foundations for more details.
- e No cut 'n' past or photo reductions of plans will be acceptable.
- f The submitted plans must be clean and free from stray pencil marks, notations, sketches, etc.

14 Floor Plans

- a Dimensions to contain but not limited to:  
Overall exterior dimensions, interior room and hallway dimensions, and finished stairway dimensions .
- b Identification of primary and secondary egress doorways.
- c Identification of the size of all doors, and cased openings.
- d Identification of smoke detector locations, and type of units to be installed.  
Submit mfg. documentation to confirm compatibility of units.
- e Identification of bathroom exhaust fans and exterior discharge location.
- f Identification of all tempered or safety glass.
- g Identification of all window units by code letter or number.  
( ie: 'A', 'B', etc ) Windows used for Emergency Egress should be identified as such.
- h Provide a window schedule which shows the following:
  - 1 Window identification.
  - 2 Window size, and total square footage.
  - 3 Total square footage of operable sash.

14 Floor Plans (continued)

- 4 Total square footage of room in which the window is located.
- 5 Square footage of natural light (8%) and natural ventilation (4%) which is required for the room.
- 6 Square footage of glazed area and ventilation provided.
- i Identification of fire separation between house and attached garage.
- j Identification of garage floor surface.
- k Identification of guard rail and hand rail finished heights.
- l Identification of attic access location and finished opening size.
- m Identification of location where framing sections are taken.
- n Identification of the size of all door, window and opening headers with spans of greater than 4 foot span.

15 Elevations

- a Elevation drawing of each side of the building.  
Provide auxiliary elevation views as may be required by the design.
- b All Emergency Egress windows to be identified.
- c Roofing material.
- d Dimension chimney height above roof and above highest point within 10 foot radius.
- e Show dimension of foundation above finished grade.
- f Show approximate finished grades at foundation.  
These grades must be site specific and not generic.

16 Foundation Plan

- a Dimensions to contain but not limited to:  
Overall exterior dimensions, column spacing, and finished stairway dimensions.
- b Identification and location of basement windows and size.
- c Identification and location of basement egress door and size.
- d Location and specifications of all anchor bolts.
- e Identify width and depth of foundation footings.
- f Identify size and depth of all column footings.
- g Identify foundation wall thickness.
- h Concrete specifications for foundation and slab. (2500 psi minimum)

17 Floor Framing Plans

- a Dimensions to contain but not limited to:  
Overall exterior dimensions, and dimensions to main girt beams from exterior or bearing walls.

17 Floor Framing (continued)

- b Floor framing specifications, to include but not limited to:
  - 1 Wood species, lumber grade, fiber stress, and modulus of elasticity of framing lumber to be used.
  - 2. Floor joist size, spacing and maximum span required.
  - 3. Identify the required fiber stress, modulus of elasticity, and joist spacing required to achieve the maximum required span.
  - 4. Identify the maximum allowable span for the lumber selected.

18 Roof Framing Plans (simple roof)

- a Dimensions to contain but not limited to:
  - Overall exterior dimensions, and dimensions to locate the ridge.
- b Roof framing specifications, to include but not limited to:
  - 1. Wood species, lumber grade, fiber stress, and modulus of elasticity of framing lumber to be used.
  - 2. Rafter size, spacing and maximum span required.
  - 3. Identify the required fiber stress, modulus of elasticity, and joist spacing required to achieve the maximum required span.
  - 4. Identify the maximum allowable span for the lumber selected.

19 Roof Framing Plans (complex roof)

In addition to the information required for a Simple Roof , provide the the following:

- a The size of all hips, valleys and ridge boards.
- b Ridge specifications, engineering certification and connection details for structural ridge in vaulted ceiling areas.

20 Framing Sections and Details

On simple house frames, framing sections and connection details may be used in lieu of complete framing plans.

All the information required for the framing plans must appear on the section drawings.

- a Framing sections and details to include but not limited to the following:
  - 1. Overall dimensions, ceiling height, and floor to floor heights.
  - 2. Show height from average grade to peak of roof.
    - This dimension is required to demonstrate compliance with height limitation of the Town by-laws.

20 Framing Sections and Details (continued)

3. Foundation specifications, Exterior wall specifications  
Floor specifications, and Roof specifications.

Note--Framing sections to clearly show all connection details.

21 Structural specifications

In addition to the structural specifications which are required under  
Foundation, Floor Framing and Roof framing, provide additional  
structural specifications as may be needed to demonstrate  
building code compliance.

Provide engineering certification as outlined in  
10 Professional Engineering Certifications (above)  
Any unusual structural condition, or as indicated by the  
Building Commissioner.

All engineering certifications must be site specific.  
Generic certifications will not be accepted.  
All certifications will bear the original seal and signature of the  
engineer of record, and will be dated.

This document is intended to aide you in the preparation of your building permit application package. These requirements are to be considered as minimum documentation and not as an all inclusive list. You should provide addition information as need to demonstrate compliance to the Ma. State Building Code, Town by-laws, and regulations from other authorized agencies.

If you have any questions please feel free to call or come-in during scheduled office hours.

Tues. 8:30am to 11:30am and Thurs. 8:30am to 11:30am  
(978) 772-8214

cc:file

cf: c:\qawin\layer\pmtltr-draw99.qw

## **Ayer Board of Health Well Regulations**

### **1.0 Purpose and Authority**

The regulations are intended to promote the public health and general welfare by ensuring that private wells are constructed in a manner which will protect the quality of the groundwater derived from private wells. These regulations are adopted by the authority of Chapter 111, Section 31, M. G. L.

### **1.1 Definitions**

As used in these regulations, the following terms shall be defined and interpreted as follows:

- (1) Abandoned water well. A private well that has not been used for a water supply for a period of one (1) year or more and which the owner does not intend to use again.
- (2) Agent. The Nashoba Associated Boards of Health (hereinafter referred to as Nashoba) serving as the agent for the Ayer Board of Health, as provided by Chapter 111, Section 27A.
- (3) Aquifer. A water bearing geologic formation that contains water in sufficient quantities to potentially supply a well for drinking water or other purposes.
- (4) Person. An individual, corporation, company, association, trust, or partnership.
- (5) Portable water. Water that is satisfactory for drinking and for culinary and domestic purposes.
- (6) Private well. A water supply well which will not serve either a number of service connections or a number of individuals sufficient to qualify as a public water system as defined in 310CMR22.02.
- (7) Pumps and pumping equipment. Any equipment or materials used or intended for use in withdrawing or obtaining groundwater. Including, without limitation, seals and tanks, together with fittings and controls.
- (8) Regulating agency. The Ayer Board of Health through its agent, the Nashoba Associated Board of Health.
- (9) Well. An excavation or opening into the ground made by digging, boring, drilling, driving, or other methods, for the purpose of providing a potable drinking water supply.
- (10) Well driller and/or digger. Any person who is licensed by the Water Resources Commission (as defined by Chapter 620 of the Acts of 1956, as amended) to construct wells.

(11) Well Seal. An approved arrangement or device used to cap a well or to establish and maintain a junction between the casing or curbing of a well and the piping or equipment installed therein, the purpose or function of which is to prevent pollutants from entering the well at the upper terminal.

## **2.0 Requirements for Private Wells**

(1) No private well shall be deemed a source of potable water unless it is constructed in accordance with these regulations. No well shall be constructed or destroyed except in accordance with these regulations.

(2) For each private well constructed after the effective dates of these regulations, there shall be:

- (a.) a well construction permit application;
- (b.) a well construction permit;
- (c.) a water quality analysis;
- (d.) a certificate of compliance with the terms of the permit;
- (e.) a well driller's or digger's report

(3) For each private well destroyed after the effective date of these regulations, there shall be:

- (a.) a well destruction permit application;
- (b.) a statement of well abandonment from the owner;
- (c.) a well destruction permit;
- (d.) a well driller's or digger's, or contractor's report of destruction.

(4) The Ayer Board of Health or its agent shall investigate violations of these regulations or of any permit issued and may take such actions as it may deem necessary for the protection of the public health and to restrain violations of these regulations.

(5) Whosoever violates these regulations shall be punished by a fine of not more than \$500.00 dollars to, and for the use of, the Town in which the well is located.

## **3.0 Well Construction or Destruction Permits**

(1) No person shall engage in the business of constructing or destroying private wells within the Town under these regulations unless registered as a well driller/digger with the Water Resources Commission, pursuant to 313CMR3.00.

(2) An application for a well construction or destruction permit shall be submitted by the property owner, the well driller/digger or his agent to Nashoba on a form furnished by Nashoba.

(3) A well construction or destruction permit shall be obtained from Nashoba prior to the construction or destruction of any private well. Nashoba shall charge a fee for each well construction or destruction permit and said fee shall be paid to the Nashoba Associated Boards of Health prior to the permits issue.

#### 4.0 Well Construction Permit Requirements

The following information shall be submitted by the property owner or the well driller/digger or their agent with the well construction application, prior to the issuance of a permit:

- (a.) general location of the proposed well to include the location of at least one road intersection for reference;
- (b.) a sketch of the expected construction of the well to include an approximation of the expected well depth;
- (c.) a description of any possible source(s) of contamination within 400 feet of the proposed well location (see sect. 4.1(1));
- (d.) The well driller's/digger's name and certification number as it appears on the Water Resources commission certificate;
- (e.) description of the prior/current land use in the vicinity of the proposed well location (i.e. agricultural, industrial, etc.).

For emergency repair, alteration, or replacement of an existing well the Ayer Board of Health or Nashoba may waive the requirements of these regulations for dwellings which were in existence prior to the effective date of this regulation.

#### 4.1 Well Location Requirements

(1) In establishing the location of a well, the well owner and/or the driller/digger, shall identify any and all sources of potential contamination (agricultural fields, animal feed lots, beauty salon, dry cleaner, funeral home, furniture stripper/refinisher, gasoline/service station, fuel depot, automotive junk yard, railroad line or yard, etc.) which exist within 400 feet of the proposed well site.

The following minimum lateral distances from contamination shall apply with the granting of a variance under special conditions:

Source of Contamination	Minimum Distance (feet)
Leaching facility (310CMR15.00)	100
Leaching facility (in soils with percolation rates 2 minutes per inch or less)	150
Cesspool	100
Septic tank	50
Sewer line	50
Property line	50
Public or private way, common drive, easement	50
Active or closed landfill	400
Hazardous waste spill site	400
Any type of surface water	100

(2) Where, in the opinion of the Ayer Board of Health or Nashoba, adverse conditions exist, the above minimum distances may be increased or special means of protection may be required.

These special requirements shall be added to the well construction permit by Nashoba.

(3) The well shall be up gradient of sources of contamination when ever possible. The top of the well shall be higher than any surface of contamination and above any conditions of flooding by drainage or runoff from the surrounding land, unless otherwise adequately protected.

#### 4.2 Well Construction Standards

(1) Wells shall be constructed in compliance with the recommendations of the latest edition of the Manual of Individual Water Supply, U. S. Environmental Protection Agency (U.S. EPA), Water Supply Division (exception: springs shall not be used for the purpose of a potable water supply).

(2) The annular space between the protective well casing and the wall of the drilled hole or surface casing shall be effectively sealed. The seal is to protect against contamination by surface and/or shallow, subsurface waters.

(3) The well casing shall be capped or covered with a sanitary well seal. Casings shall extend a minimum of 24 inches above the highest known flood levels or 18 inches above the ground surface in areas which are not subject to flooding. In addition all non-vent openings shall be sealed to exclude the intrusion of contaminants. Vent openings shall be of an approved type, complete with screening.

(4) Any well that is finished in bedrock or penetrates any confining layers (impervious formations) and therefore a potentially different aquifer(s) shall require the sealing off of each aquifer from the other(s). A minimum of ten feet of an appropriate sealing material shall be used to seal one aquifer or formation from another.

(5) When well screens are used, the screen length and opening size should be selected to ensure that the water supply will be free from silts and sands and other suspended solids.

(6) Well pumps and water storage equipment shall be selected to ensure that the water supply is to be adequate (a minimum of five gallons per minute (GPM) is recommended) over a sustained period of pumping. NOTE: The proper selection of the pump is important to protect against unnecessary wear on the equipment and to maintain a safe and adequate supply of water.

(7) Pump suction lines (if used) shall not be closer than 100 feet from underground sewage leaching facilities or 50 feet from a septic system (310CMR15.03).

(8) Well pits to house the pumping equipment or to permit accessibility to the top of a well shall not be permitted.

#### 4.3 Disinfection and Other Sanitary Requirements

All private wells shall be disinfected following construction, rehabilitation, and well or pump

repair, before the well is placed into service. The well shall be pumped to waste (not to the septic system) until the water is as clear as possible. Thereafter the well and the pumping equipment (and plumbing, if installed) shall be disinfected with a solution containing at least 50 parts per million (ppm) of chlorine. The well shall remain in contact with the chlorine solution for a minimum of 24 hours before the well is pumped to waste (not the septic system) and the water found to be free of chlorine. (Information and instructions for the disinfection procedure is available from Nashoba)

#### **4.4 Water Sampling Procedure**

(1) Water sample(s) shall be collected by Nashoba. All water sample(s) shall be collected in an appropriate manner as to maintain the integrity of the sample collected. Collection of the sample(s) shall occur following the well development and the disinfection process for the well (see section 4.3). The water sample may be taken to a laboratory of Nashoba's choice unless the owner selects a specific laboratory, at which time the sample container may be sealed with the custody tag and delivered to the owner selected testing laboratory by him/herself. The laboratory shall be required to notify Nashoba should the sample be received with a broken custody seal.

(2) A representative water sample for laboratory analysis shall be collected at the pump discharge or from a tap in the pump discharge line. A representative sample shall constitute a sample collected after the removal of at least three standing volumes of water from the well or a minimum of 10-15 minutes of pumping from the well.

(3) The sample(s) shall be analyzed for the following parameters at a minimum: coliform bacteria, arsenic, lead, sodium, iron, manganese, copper, magnesium, color, sulfate, turbidity, alkalinity, chlorine, chloride, hardness, ammonia, nitrite, nitrate, pH, conductivity, odor and potassium. All analyses shall be performed in accordance with U. S. EPA methods or other approved methods for drinking water analysis.

(4) Analytical tests such as volatile organics (VOCs), pesticides, PCBs and inorganics (metals) other than those specified in 4.4(3), can be added or deleted, as public knowledge increases or at the request of the Ayer Board of Health or Nashoba, when conditions may indicate the need (i.e. prior land use) for such testing. Samples which are to be analyzed for volatile organic compounds shall not contain air bubbles of any size.

#### **4.5 Water Quality**

(1) All analytical results shall be reviewed by Nashoba and an assessment of the suitability of that well for drinking water will be made. Nashoba will adhere to the current and applicable drinking water standards as detailed by the U. S. EPA and the State of Massachusetts Department of Environmental Quality Engineering (DEQE). Approval of the results, by Nashoba, must be obtained in writing before the well shall be placed into service as a drinking water supply.

(2) The water sample(s) shall be analyzed by a laboratory certified to perform drinking water analysis by the DEQE for each parameter analyzed. A copy of the results shall be sent to both the Ayer Board of Health and Nashoba. All fees for the water testing are the responsibility of the applicant and all fees shall be paid in full prior to the approval of the well permit.

(3) As stated in section 4.4, Nashoba or the Ayer Board of Health may require that additional chemical analysis be performed on the well water. Any such additional requirement shall specify which chemical constituents or chemical fractions (pesticide/PCB, extractables, etc.) shall be tested for.

(4) No result shall exceed the current and applicable drinking water standards for a public water supply, as detailed by the U. S. EPA and/or DEQE (40CFR141 and 310CMR32). Nashoba may also use professional judgement when assessing the results of the water well prior to approval of that well. When the results indicate a potential health hazard (i.e. possible gasoline contamination) Nashoba may at its discretion disapprove the well for use as a water supply.

#### **4.6 Well Completion Requirements**

(1) Within 30 days after the completion of the construction of any well, the well driller/digger shall submit to Nashoba a report containing the following information:

- (a.) The name of the owner of the well;
- (b.) The address of the property served and/or the lot number as assigned by the Assessor's office;
- (c.) The depth, size and method of construction of the well;
- (d.) The location of the well which shall show the distance from two permanent landmarks;
- (e.) The static water level;
- (f.) The yield of the well after eight hours of pumping;
- (g.) The recovery after draw down and yield tests (for at least a 24 hour period);
- (h.) The well driller's/digger's log information.

The well driller's/digger's report shall be signed by an authorized representative and shall constitute a statement of compliance with all requirements of these regulations. This will satisfy the requirement of the certificate of compliance.

#### **5.0 Well Destruction**

A well that is abandoned shall be destroyed to protect the groundwater supply and to eliminate potential physical hazards. Wells shall be sealed with non-hazardous, impervious materials which shall be permanently in place. All exposed casing materials, pumping equipment, and distribution lines shall be removed. The excavation shall be returned the existing grade of the surrounding land. A record of abandonment shall be kept in accordance with Section 2.01(5).

#### **5.1 Well Destruction Requirements**

The following information shall be submitted with each well destruction application, prior to the issuance of a permit:

- (a.) The specific location of the well to be destroyed;
- (b.) The design and construction of the well to be destroyed;
- (c.) A written statement from the owner that the well is abandoned.

Within 30 days after the destruction of any well, the well driller/digger, or contractor shall submit to Nashoba a report containing the following:

- (a.) The name of the owner of the well;
- (b.) The address of the property served;
- (c.) Method of sealing, including materials used;
- (d.) Person or persons sealing the well and date of the sealing of the well.

The well driller's/digger's report shall be signed by an authorized representative and shall constitute a statement of compliance with all requirements of these regulations. This will satisfy the requirement of the certificate of compliance.

## 6.0 Variances

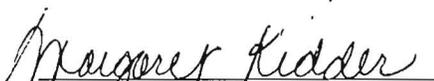
(1) Variances may be granted only as follows: The Ayer Board of Health may vary the application of these regulations with respect to any particular case when, in its opinion, the enforcement thereof would do manifest injustice, and the applicant has proven that the same degree of public health and environmental protection required under these regulations can be achieved without strict application of a particular provision(s).

(2) Variance requests shall be in writing to the Ayer Board of Health and include all the information/reasons and proposed measures necessary to assure the protection of the public health and environment. The Ayer Board of Health shall grant, modify, or deny a variance in writing, and state the reasons for any denial.

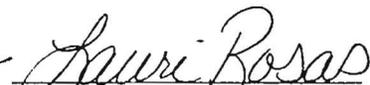
## 7.0 Substantive Procedures

Substantive Procedures shall be performed as specified in 105CMR400.1

The above **Well Regulation** approved and adopted by the Ayer Board of Health on the 10 day of January, 2001.

  
Margaret Kidder, Chairman

  
C. Jane Witherow, Clerk

  
Laurie Rosas, Member

**MassDEP COMMENTS ON  
EXPLANATION OF SIGNIFICANT DIFFERENCES  
SHEPLEY'S HILL LANDFILL  
FORMER FORT DEVENS ARMY INSTALLATION (RTN 2-0000662)  
JANUARY 7, 2013**

---

1. Section 2.2.2: The final paragraph, an apparent reference to the Army's controversial position on the performance of the groundwater extraction system, should be deleted from the ESD because the regulatory agencies have not accepted the Army's position on the performance of the extraction system, and the subsequently described rationale (incomplete delineation at time ROD was signed, Section 3.1) has been accepted and is sufficient to justify the ESD.

*The text has been revised as follows: "Since the time of the ROD, a more comprehensive understanding of the remedy Conceptual Site Model (CSM) has been developed which indicates a more complex groundwater contamination problem with greater uncertainty that the remedy will meet the aquifer restoration goals."*

2. Section 3.1: LUCs cannot be used as a surrogate for necessary groundwater remediation. Consequently, the ESD should be clarified to indicate that the LUCs are intended to provide interim control of exposure to contaminated groundwater until unacceptable risks are eliminated by other remedial action that will be implemented as a component of the coming remedy update.

*The intent of this statement was not to imply that LUCs can be used as a surrogate for necessary groundwater remediation, but rather that LUCs are required to protect potential residential receptors from exposure to contaminated groundwater. Therefore lines 325-327 will be replaced with the following text: "The LUCs implemented pursuant to this ESD address the RAO to protect potential residential receptors from exposure to contaminated groundwater in excess of MCLs, until remedial goals have been met, as stipulated in the ROD."*

3. Section 3.1.2: Copies of the cited BOH well regulations and zoning by-laws should be attached to the ESD for current review and future reference.

*This information will be provided as an appendix to the Draft Final ESD.*

4. Section 3.1.2: The second and third affirmative measures will not be effective if the BOH is not able or willing to participate; consequently, these measures should not be included in the ESD until the Army has confirmed the board's ability and willingness to participate.

*The Town Of Ayer's Well Regulations and Zoning By-laws are already in-place. Without amendment, these existing regulations and standard practices will prevent any future groundwater use in the area of proposed Land Use Controls. The roles and responsibilities of how the LUCs will be*

*implemented will be specified in the LUCIP. The Army will work with the Town of Ayer under the LUCIP to specify how the LUCs will be implemented maintained and enforced.*

5. Section 4: To document that all comments received on the draft ESD were addressed, copies of the comment letters received should be attached to the ESD and cited here.

*All Response to Comments will be included in the Draft Final ESD.*

6. Section "AUTHORIZING SIGNATURES": The ESD should not indicate that MassDEP concurred with the ESD. Instead, the ESD should indicate that MassDEP reviewed and commented on the ESD, in accordance with CERCLA, and a copy of MassDEP's comment letter should be attached to the ESD.

*The suggested change will be made in the text on Page 15, line 526.*

**EPA Comments on  
Draft Explanation of Significant Differences  
Land Use Controls to Restrict Use of Groundwater  
For Shepley's Hill Landfill Superfund Site  
Former Fort Devens, MA  
October 2012**

---

**General Comment:**

1. If the local Board of Health (BOH) regulations will be the primary land use control (LUC) as presented in the Draft ESD, the Army must ensure that the Town's well regulations provide clear requirements to prevent the use and installation of groundwater wells in the NIA. Army and EPA have had initial discussions with the Town of Ayer regarding the Draft ESD and particularly the request for a moratorium on groundwater wells in the LUC area. Town representatives have indicated that they are willing to enact a moratorium, but further discussions and coordination are required to ensure that the Town will agree to partner with the Army and EPA to implement and enforce the proposed moratorium.

As an example, the Town of Mashpee, MA BOH, as a result of off-site groundwater contamination from the Mass Military Reservation, adopted a moratorium on residential wells, restricting any and all uses of groundwater, and defining the areas where well use is prohibited based on the documented groundwater plume areas. The moratorium applies to existing and potential future wells. As another example, the Town of North Smithfield, RI enacted a similar ordinance to prohibit groundwater use within the area impacted by the Stamina Mill Superfund Site. Copies of these moratoriums are attached. This type of moratorium provides for a strong LUC, since the groundwater plume map and specific restrictions for the area are incorporated directly into the well regulations, and as it applies to both existing and new wells. EPA believes that this type of LUC is necessary to address potential gaps in the existing local regulatory controls cited by the Army as LUC layers in the Draft ESD.

If a moratorium is not enacted by the Town, or if the Town's by-laws remain inadequate to prevent exposure to contaminated groundwater from existing or potential future groundwater wells, the ESD as proposed will not meet statutory requirements for protectiveness. Other alternatives, including proprietary controls (for example, easements that restrict groundwater use for each of the affected properties) must then be considered.

*Please see response to MassDEP Comment No. 4. With respect to the need for a moratorium on the use of groundwater within the impacted area, the use of LUCs/ICs are effective given the existing town regulations, the well documented site conditions and local BOH legal responsibilities, it is difficult to envision a scenario whereby a private well construction permit application for property along West Main Street would ever be submitted let alone be approved.*

*However, if the Town and EPA consider issuing a moratorium on groundwater use is necessary, then the Army will work with both agencies to ensure it is implemented under the LUCIP.*

2. In order to support the reliance on governmental controls, such as a groundwater use moratorium implemented through the local BOH well regulations, the Army will need to demonstrate that the Town has the ability and capacity to assist with IC implementation, maintenance, and enforcement. A “common understanding” regarding the respective IC roles, responsibilities, and legal authorities of the parties should be memorialized through mechanisms available under state law (e.g., an MOU, Administrative Order on Consent, contract, or enforceable agreement). Refer to Sections 3.8, 6.0, 8.4, and 9.3 of “A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites” for further guidance on establishing a “common understanding” and the use of governmental controls as ICs. A discussion of the “common understanding” arrangements will need to be discussed in the ESD and detailed in the LUCIP.

*Please see response to MassDEP Comment No. 4 and EPA General Comment No. 1.*

*The roles and responsibilities of how the LUCs will be implemented will be specified in the LUCIP. The Army will work with the Town of Ayer under the LUCIP to specify how the LUCs will be implemented, maintained and enforced.*

The Army should add language to the ESD to address the disposition of any groundwater wells found within the LUC area (e.g., if a property owner in the LUC area reports an existing well). The ESD should identify actions that the Army will take to ensure that the well is not used (e.g., Army should provide for the safe and permanent decommissioning of any wells found to exist within the LUC area).

*The Army will incorporate the abandonment and/or decommissioning of any groundwater wells that are identified within the area of Land Use Controls into the LUCIP, for any wells installed prior to implementation of the ESD. The LUCIP will provide details on this task including that there is not a time limit on the Army’s responsibility for this.*

#### **Specific Comments:**

1. Page 2, line 69: The CERCLA citation is in error. The correct citation for “Explanation of Significant Differences” is CERCLA § 117(c).

*The reference will be corrected.*

2. Page 2, line 78 and footnote 3: Replace the LUC definition footnote with the most recent EPA Guidance reference for the definition of ICs and LUCs. See Section 2 of EPA’s “A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites.”

*The reference will be updated.*

3. Page 3, line 93: Revise to read: “The following sections contain a brief history of the site, *an overview of site contamination and risks*, a description of the remedy selected in the ROD, and...”

*The text will be added as noted above.*

4. Page 4, line 165: Additional discussion regarding the levels of arsenic found at the site driving the risk of human exposure should be included in this summary.

*Additional language will be added to this line as indicated below.*

*“The RI and RI Addendum reports identified potential human exposure to arsenic in groundwater as the primary risk at SHL. Currently, there is no significant risk to human health, but such a risk could exist if groundwater was a source of drinking water. Arsenic levels are above acceptable human health risk levels for potential future exposure pathways that include drinking water.”*

5. Page 8, line 311: Revise to read: “...enforceable component of the ROD *to address the migration of arsenic contamination from Shepley’s Hill Landfill groundwater to groundwater under public, residential and commercial areas of Ayer and the potential risk of human exposure to that contamination.*”

*The above text will be added as noted with the following addition.*

*“...enforceable component of the ROD that will further protect potential receptors from exposure to contaminated groundwater migrating from the landfill having chemicals in excess of MCLs.”*

6. Page 9, line 331: “Groundwater in the NIA poses an unacceptable risk to human health if used for drinking water...”

*The above sentence will be corrected as shown below.*

*“Groundwater in the NIA would pose an unacceptable risk to human health if used for drinking water...”*

7. Page 9, lines 359-361: Omit this sentence: “Since natural sources of arsenic and natural conditions resulting in arsenic mobilization are prevalent throughout the region surrounding SHL, this ESD nor the LUC's implemented, are not by any means intended to infer groundwater outside the restricted area is suitable for any use.” This does not relate to the objectives of this ESD.

*The subject text will be deleted.*

8. Page 10, lines 368-373: The ESD does not clearly address how the regulatory citation supports the LUC performance objectives identified in Section 3.1.1 of prohibiting use of

groundwater. How does the well application procedure of requiring the applicant to “identify any and all sources of potential contamination within 400 feet of the proposed well site” support prohibiting groundwater wells in the NIA? Where does the applicant obtain the information on potential sources of contamination? Would the applicant obtain information on the location of SHL and the SHL plume through the process of gathering the information on sources of potential contamination? Would all areas of the plume be considered within the 400 foot designation? Does Ayer BOH prohibit installation of groundwater wells if the location is proposed within 400 feet of a potential source of contamination and, if so, where is that stated? Copies of the regulations should be provided as an Appendix to the ESD. If the regulations only apply to certain areas of the LUC Area, this should be depicted on a figure. The LUC Area depicted in Figure 3 shows that this area extends up to approximately 2000 feet beyond the Fort Devens property boundary.

*The comment and questions posed all presuppose that private wells in this area of town could be allowed pending the processing of a well permit application. However, based on the Town of Ayer zoning, building and permitting requirements referenced in the ESD, a well permitting process would never be implemented for a property in this area because it is serviced by public water. In fact, private well permits in Ayer are rare (95% of Ayer is serviced by Town water) given these requirements and the fact that most areas have access to public water. A review of the MassDEP “search well” database indicates only 25 new well records from 1971-2009 all of which are located in more rural areas outside the town center not serviced by public water. Finally, in the unlikely event that a private well permit application is submitted for review by the BOH, it is the duty of the local BOH to monitor local conditions and create necessary regulations which address those conditions in order to protect public health (per MGL CH. 111, Section 31). Therefore, under the existing town regulations, the well documented site conditions and local BOH legal responsibilities, it is difficult to envision a scenario whereby a private well construction permit application for property along West Main Street would ever be submitted let alone be approved.*

*The LUC boundary is approximately 400 feet from the edge of the northern impact area, not the Fort Devens’ property boundary. Any institutional controls will refer to the LUC boundary on a map (Figure 3) not distances from property boundaries. Therefore this extended boundary will create an additional buffer from the impacted groundwater. Figure 3 of the ESD depicts the area to be restricted under the LUCs and will be included in the moratorium developed with the Town of Ayer.*

9. Page 10, lines 375-384: To support the relevance of the cited by-laws, a copy of the Town of Ayer utility plan showing the location of municipal water supply pipelines in the LUC Area should be provided. Further, consistent with Section 6.2 of “A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites,” the Army should have discussions with the Town to address whether any anticipated changes to the ordinance are likely, whether zoning variances are allowed that could compromise the value of these requirements as an IC layer, and whether procedures are in place to assure compliance with the zoning requirements.

*As part of the preparation of the LUCIP the Army will work with the Town of Ayer to define and develop what procedures are required to assure compliance with the zoning requirements. A Town Utility Map will included as an Appendix to the LUCIP.*

10. Page 11, lines 410-412: As noted in the General Comment above, EPA believes a groundwater use moratorium must be implemented for the LUC discussed here. EPA has determined that the existing regulations and proposed education and outreach in the Draft ESD are not capable of meeting the LUC performance objective of prohibiting the withdrawal and/or use of groundwater from the LUC Area without a moratorium.

*Please refer to the response to EPA General Comment No.1 and 2.*

11. Page 11, lines 421-423: Please revise. Because the LUCs identified on page 10 are governmental controls under State and local authority, Army would not modify or terminate them. Rather, Army should indicate that they will coordinate with local and State authorities, as appropriate, when LUCs are no longer required for protectiveness of the Shepley's Hill Remedy. At that time, the Town of Ayer may choose to terminate the groundwater use moratorium.

*The following language will be added to line 423 "coordination/concurrence of the Town of Ayer, EPA and MassDEP, that the LUCs are no longer required or the LUCs should be modified.*

**Follow-up to Army's Draft RTCs  
March 26, 2013**

EPA has the following follow-up comments on the Army's RTCs:

- During our telephone discussion on March 15<sup>th</sup>, we discussed the response to General Comment 2 and EPA's request for a document to memorialize a "common understanding" between Army and the Town of Ayer. During the call, you indicated that Army believed that the planned Land Use Control Implementation Plan (LUCIP) should satisfy the requirements for Army's documentation of its roles, responsibilities and legal authorities related to the implementation of the proposed LUCs and that Army did not agree that a separate document was necessary. EPA is willing to consider using the LUCIP as the document to support the Army and Town's "common understanding", since the Army intends to retain responsibility for much of the long-term responsibility for LUC oversight. Possibly, Army could ensure that the LUCIP adequately documents the Town's roles and responsibilities for LUC implementation and enforcement and Army/Town coordination efforts going forward. The Town could then issue a letter following review of the draft LUCIP acknowledging the LUCIP requirements and agreeing to work with the Army to ensure implementation and enforcement of the

LUCs. EPA would also want the Town's letter to state that the Town would notify Army, EPA and DEP if there was any change in their ability to maintain and enforce the LUCs relied upon in the ESD and LUCIP. This letter could be incorporated into the Final LUCIP. Let's discuss this option further with the Town as we move forward with finalizing the ESD and drafting the LUCIP.

*The Army will work with the Town of Ayer and the EPA to incorporate the above points into the LUCIP.*

- With respect to RTC to Specific Comment 4, EPA recommends the revised text be updated to state: "*Currently, **based on available survey records**, there is no significant risk to human health, but such a risk could exist if groundwater was a source of drinking water.*"

*The text will be revised to reflect the above recommendation.*

**Ayer BOH Comments on  
Draft Explanation of Significant Differences  
Land Use Controls to Restrict Use of Groundwater  
For Shepley's Hill Landfill Superfund Site  
Former Fort Devens, MA  
April 5, 2013**

---

The Ayer Board of Health offers the following comments on the Draft ESD:

1. The Ayer Board of Health would like to go on record that the Army will be responsible and provide for any abandonment and/or decommissioning of wells that may be identified within the plume of contamination Area of Land Use Controls, including covering the costs of doing so. This should be noted as being open ended, meaning that should a well be found, for example, five years from now, the Army will still be responsible for taking care of it.

*Please refer to the response to EPA General Comment No.2.*

2. The report is very difficult for the average person to understand. It would be helpful in the future if information produced by you was put forth in less technical language.

*Although we understand your frustration, the documents that are produced under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) are technical in nature, in order to meet the requirements of the EPA's regulations. The Explanation of Significant Differences (ESDs) is a legal document that is intended to spell out the changes to the site remedial action objectives (RAOs) from the current of the Record of Decision (ROD) for the site. Therefore this document requires a concise technical summary of the differences noted and changes required.*

*As part of the LUCIP there will be newsletters and public forums to provided, written in less technical language that will be distributed to the public.*

3. We wish to reiterate that all costs associated with any implementation of land use controls by Ayer Board of Health must be borne by the Army.

*The Army's responsibility with respect to implementation of LUCs and the Town of Ayer's responsibility related to the enforcement of the LUCs will be specified in the LUCIP. The Army will work with the BOH to ensure effective implementation and enforcement of the LUCs. The Army believes that these LUCs will have a minimal financial impact on the Ayer BOH or the town in general.*

4. We feel it would be helpful if the Army maintained a database of all landowners in the affected area and continued to update it annually. Contents of this database should be worked out in consultation with the Town of Ayer.

*In the LUCIP, the Army will outline the tasks that will be completed as part of the plans execution. The Army will be updating its database of landowners with the area of LUCs.*

5. Public education and outreach is important and must be defined clearly.

*The Army will include the details of "public education and outreach" in the LUCIP. Public education and outreach will likely include but limited to the following:*

- i. Updated survey of affected landowners and residents*
- ii. Distribution is literature regarding the restriction of ground water use in the area of Land Use Controls*
- iii. Participation in annual or as needed meetings with the Board of Health to update them on any changes in the groundwater use restrictions or to the area of LUCs*

6. Please define how the Army will contact landowners and residents to ensure the greatest outreach to impacted residents' areas. We would suggest using a combination of certified mail, inclusion of notices in water bills, and door-to-door outreach if necessary.

*The Army will contact the landowners and residents of properties located within the LUCs via certified mail, door to door survey or other means agreed to by the Town Ayer. The LUCIP will include the details of these notifications.*

7. Please consider posting the land with signs indicating the Ayer Board of Health does not allow wells in this area.

*The Army will work with the Town of Ayer to determine the best means of continuing to inform the public that groundwater should not be accessed or used in the area of LUCs. The installation of groundwater wells in any part of Ayer requires approval by the BOH. The administrative controls on groundwater use implemented in the LUCs and that are currently in place under the Town of Ayer's by-laws may be the best means to protect the public.*

**Laurie Nehring Comments on  
Draft Explanation of Significant Differences  
Land Use Controls to Restrict Use of Groundwater  
For Shepley's Hill Landfill Superfund Site  
Former Fort Devens, MA  
April 5, 2013**

---

General Comments:

I am concerned that this report is very difficult for the average person to understand, and to grasp the potential impact on his/her property if they reside in the designated areas along West Main Street in Ayer. The town of Ayer is not even mentioned in this report, as it relates to the need for LUCs until we get to page 9 (out of 14 pages).

The report appears to me to be cryptic in avoiding language that makes it clear why the ESD is important, and how the LUCs may impact the residents in the affected area and burden town officials. I ask that Army to remove acronyms that have little meaning to residents (such as NIA), and replace them with words that have meaning, such as "town of Ayer".

Specifically, I suggest:

-The title of this report should be reworded as: "Explanation of Significant Differences Land Use Controls to Restrict Use of Groundwater in portion of the town of Ayer as a result of the for Shepley's Hill Landfill Superfund Site"

-Remove the acronym NIA and replace it with "the properties in Ayer along W. Main Street that is north of the landfill."

-Include a clear statement about the problem and need for the LUC in the introduction that clearly defines the location of the impact area.

*Please see the answer to the BOH's comment No. 2. In addition the requested revisions would cause confusion with other documents that refer to the area as the NIA as well as the previous ROD, and therefore is not recommended, however we can define the NIA acronym to state that this area includes properties in Ayer along W. Main Street that is north of the landfill.*

Specific Comments:

1. I agree with the comment from EPA, that the LUC defined in the footnote 3 should be replaced with the updated regulation.

*The reference will be updated. Please see the response to EPA's Specific Comment No 2.*

2. Line 131. Please provide evidence that the landfill waste was placed over peat deposits and how much of it is “sandy aquifer that overlies bedrock or till. “

*The characterization of the landfill’s geology can be found in the several historic SHL site investigation reports but is most recently summarized in the Shepley’s Hill Landfill Supplemental Groundwater and Landfill Cap Assessment for Long-term Monitoring and maintenance – Addendum Report, dated August 2011. A reference to this report will be added to the document.*

3. Line 178. In the RAO, please include “Protect potential residential receptors in Ayer and possibly Devens from exposure..

*The RAO is a direct quote from the ROD and cannot be changed in this document.*

4. Line 244-250. A question: Do the deed restrictions described here which border Plow Shop Pond also apply to Grove Pond drinking water wells, owned by the Army or by Mass Development? It is my understanding that these wells are shallow wells, and still used sporadically to keep them from rusting. Please explain.

*The Grove Pond drinking water wells are owned and operated by the Devens Enterprise Commission (DEC) and are located outside the area proposed to be under the LUCs.*

5. Line 251. Suggest rewording “There currently are no known human receptors for groundwater exposure.

*The language in line 251 will be updated to reflect the above suggested change.*

6. Line 300-304. The statement that “large amount of arsenic is being mobilized by natural as well as landfill-induced conditions” has not been proven. While it is a complex problem, this statement should be removed unless it is supported with scientific evidence.

*The Army believes that this statement is supported by scientific evidence as summarized in the SAR, 2011 and other investigative reports and those data and conclusions are also supported by similar peer-reviewed scientific studies at sites with similar conditions/history therefore the Army will retain the text in lines 300-304.*

7. Line 309. Please remove the word “only”. It diminishes the importance of the impact of property owners, and I find it belittling.

*The word “only” here is used in a specific reference to the existing ROD, not the SHL project as a whole. The addition of the LUC language as an enforceable component of the ROD is the only significant change; therefore keeping the word “only” in line 309 appropriate. There is no other intention of the use of the word.*

8. Line 317 – 319. I adamantly request the Army NOT use the vague term “NIA” to mean, “Properties in Ayer impacted by the north plume.” Please replace NIA throughout this document with a clear statement that defines the location.

*The term NIA has been used in several of the previous documents as an abbreviation to define the area where elevated arsenic levels have been detected in groundwater beyond the SHL boundary. The term NIA has come to define the area in earlier submittals and has become a term that defines this area for the regulatory groups involved. The Army will try to minimize its use where it's appropriate; especially in the LUCIP. As per our response to the General Comment, the Army will use the phrase “the properties in Ayer along W. Main Street that is north of the landfill” as suggested.*

9. Line 331. Rewording suggested to state “Groundwater in the areas in Ayer impacted by the north plume poses an unacceptable risk.. (remove the work ‘would’).

*The language in line 331 is being updated at with additional language at the EPA’s request. Please refer to the response to EPA’s comment No. 5.*

10. Line 359-362. Please remove the final sentence in this paragraph.

*The Army believes that this statement is supported by scientific evidence and will retain the text in lines 359-362.*

11. All costs associated with the implementation of these LUC’s by the Ayer Board of Health, Building Commissioner, legal fees and any other town official or individual responsible for this implementation should be fully funded by the Army. This would include but not be limited to clerical time, technology support, management, hiring of any experts, materials & supplies needed, postage, costs for public hearings, etc.

*Please see the response to the BOH’s comment No. 3.*

12. A database of the impacted properties in Ayer should be maintained and updated at least annually, along with a map overlay, clearly showing the impacted properties. The contents of the database should be worked out in consultation with the Town of Ayer.

*Please see the response to the BOH’s comment No. 4.*

13. Line 399. The Public Education and outreach is important, and must be defined clearly. “Periodic distribution” should be replaced with “annual” or “biannual” as per the Board of Health requirements.

*Please see the response to the BOH’s comment No. 5.*

14. Line 403. Please define how the Army will contact landowners and residents to ensure the greatest outreach to impacted residents possible, as close to 100% as possible. I

suggest using a combination of certified mail, inclusion of notices in water bills, and if necessary, door to door outreach for those who have not been reached via certified mail.

*Please see the response to the BOH's comment No. 6.*

15. Consider posting the land with signs indicating, "The Ayer Board of Health does not allow wells in this area" or something like that, with contact information on the sign.

*Please see the response to the BOH's comment No. 7.*

16. Line 460. While it is helpful to have meetings with 'stakeholders' through the BRAC cleanup team & the RAB, as stated here, it should also be stated that these are not adequate in reaching out and educating the general public. RABs are offered only quarterly, and are not well attended, nor understood by the average person. In addition, the public (including the Technical Advisor for PACE & PACE representatives) is not generally allowed to attend the BRAC Cleanup Team meetings, which is the best way stay updated on current events and activities.

I believe that the RAB meetings, by themselves, barely function in serving the purpose of keeping citizens involved and informed.

*In accordance with the CERCLA process, the Army is fulfilling its requirement to provide a forum through the RAB meetings to involve and inform the public in the site remedial investigations and actions taking place at Fort Devens. If additional outreach is required we suggest that this be discussed with PACE.*

**TOWN OF AYER BOARD OF SELECTMEN COMMENTS ON  
EXPLANATION OF SIGNIFICANT DIFFERENCES  
SHEPLEY'S HILL LANDFILL  
FORMER FORT DEVENS ARMY INSTALLATION (RTN 2-0000662)  
APRIL 2, 2013**

---

Of specific comment and concern, the Ayer Board of Selectmen offers the following with respect to the DRAFT ESD

1. The Town of Ayer would like the U.S. Army to conduct additional testing to accurately delineated the extent of the arsenic plume with respect to its apparent north-west expansion toward the Nonacoicus Brook (Similar requests have been stated by PACE in their comments to you on the DRAFT ESD).

*The Army is in the middle of additional delineation drilling in this area. Please refer to the "Draft Final Work Plan for Long-Term Monitoring and Maintenance Plan Update," dated April 2013 for the details of this additional investigation. This investigation is being conducted with input from the EPA and MassDEP. The data will be available in the Annual Long Term Maintenance and Monitoring Plan in September 2013 which will also be submitted in draft form for public review and comment.*

2. The Town of Ayer through its Board of Health will implement the mandatory drinking and irrigation water well moratorium and other local regulatory controls, but the Town remains concerned over the level of technical support for the monitoring and enforcement of these controls. As you are aware, the Town of Ayer has a three-member, elected, all-volunteer Board of Health and we share a Health Inspector through the Nashoba Valley Board of Health with 16 other communities. Hence, the Town of Ayer is requesting that the U.S. Army provide the Town of Ayer's Board of Health with **permanent**, dedicated technical support for the monitoring and enforcement of the land use controls with all costs (including employment and post-employment benefits) to be incurred by the U.S. Army.

*The Army is responsible for implementation all LUCs to be specified in the LUCIP. The BOH currently has a technical grant from the EPA for a third party consultant to assist them in writing the requested moratorium on groundwater use in the area of proposed LUCs. Once the moratorium is in place there will not be any extra duties the BOH is required to perform that is outside their routine review and enforcement duties which the board already performs. Under the Town's current zoning by-laws, building and permitting requirements, the use of private wells along West Main Street is already prohibited given the availability of public water. Therefore, an application for a private well construction permit submitted through the Board of Health is very unlikely. For this reason, the Army believes that a groundwater moratorium is not necessary to meet the stated LUC objectives.*

*However, if the Town and EPA consider issuing a moratorium on groundwater use is necessary, then the Army will work with both agencies to ensure it is implemented under the LUCIP.*

3. On March 20, 2013, through the support of a TASC Grant from the EPA, the Town of Ayer held a successful Public Hearing in Ayer on the issue(s) of Shepley's Hill Landfill Superfund Site and its impact(s) to the Town of Ayer. Part of this Public Hearing included the direct mailing to all known addresses in the affected arsenic plume. However, the Town remains concerned as to the level of public awareness of this issue at the affected properties because there is a high level of transient residents in this area in addition to non-resident property owners. We would respectfully request a dedicated public outreach and public education program initiated by the U.S. Army in cooperation with the Town of Ayer, EPA, and DEP.

*Please see the response to the BOH's comment No. 5.*

4. As stated by our Town Administrator at the November 2012 RAB Meeting as well as by other Town officials at the March 20, 2013 Public Hearing, the Town has incurred and will continue to incur legal costs with respect to the drafting, implementation, administration, and periodic update/revision of the Town's land-use controls. Therefore, the Town of Ayer respectfully requests a meeting with the U.S. Army to negotiate a fair and equitable financial amount for Town incurred legal costs to effectively address this problem which was created by the U.S Army and not the Town of Ayer.

*Please see the response to Board of Selectmen Comment No. 2.*

5. The Town of Ayer as well as PACE (people of Ayer Concerned about the Environment) believes that there is significant value to improving the ongoing operation of the arsenic pumping station on the Shepley's Hill Landfill. It is our opinion, that the pumping station has and is slowing the expansion of the arsenic plume across the north western portion of the Town of Ayer. However, we are concerned that the area of influence of the system is not sufficient. We are respectfully requesting written reassurance from the U.S. Army that the arsenic pumping station will remain operational on the Shepley's Hill Landfill for the foreseeable future and that every effort will be made to evaluate and upgrade the system as needed to prevent further migration of arsenic from the landfill and further contamination of ground water under the properties within the Town of Ayer. Furthermore, we request that the Army periodically look for and evaluate any emerging technologies that could possibly resolve the arsenic contamination of groundwater more quickly than the pumping station is able to do.

*The Army respectfully disagrees with the Town of Ayer's assessment of the SHL remedy effectiveness and refers to the Army's position stated in Memorandum by Mr. William J. O'Donnell II, BRAC Division to Mr. Bryan Olson, USEPA Region I, dated August 9, 2012.*

6. With respect to the public participation activities as outlined in the U. S. Army's DRAFT "Explanation of Significant Differences" (ESD), the Town of Ayer requests that the U.S. Army at its cost in conjunction with the Town of Ayer, PACE, EPA, and DEP hold an annual public forum in Ayer regarding the ongoing status of the Shepley's Hill Landfill Superfund

Site with specific emphasis on an update pertaining to the arsenic plume in the Town of Ayer until the arsenic contamination in the ground water under the Town is below EPA's Maximum Contaminant Levels for drinking water and the Town can lift the moratorium on private water wells.

*As part of the LUCIP, the Army will include providing an annual public meeting to update the Town and its residents on the status of the arsenic plume and the area of proposed LUCs.*

**TOWN OF AYER DPW's COMMENTS ON  
EXPLANATION OF SIGNIFICANT DIFFERENCES  
SHEPLEY'S HILL LANDFILL  
FORMER FORT DEVENS ARMY INSTALLATION (RTN 2-0000662)  
APRIL 4, 2013**

---

I have reviewed the Draft Explanation of Significant Differences- Land Use Controls to Restrict the Use of Groundwater, dated October 2012 Prepared by Sovereign Consulting Inc. My review and comments are based on my engineering education and experience and are beyond comments directly related to the Department of Public Works. These comments should be reviewed and if the Town feels they are valid, should be forwarded to the Department of Army.

1. Line 410 - " Request that the Ayer BOH consider implementing additional controls or restrictions....". The existing controls are related to drinking water wells. Provide more guidance on how to monitor or restrict the installation of irrigation and geothermal wells.

*The BOH currently has a technical grant from the EPA for a third party consultant to assist them in writing the requested moratorium on groundwater use in the area of proposed LUCs. An example of a moratorium (a one page letter) from the Town of Mashpee was provided to the Board of Health by the EPA.*

2. Line 422 - refers to "such levels". Levels or basis for establishing acceptable levels should be detailed.

*"Such levels" will be defined as below Massachusetts DEP Maximum Contaminant Levels (MCLs).*

3. The LUCIP should detail the specific responsibilities, level of effort and related costs to the Town to implement and oversee the controls.

*Please see the Response to the Board of Health's Comment Nos.3, 4 and 5.*

4. All costs to the Town for monitoring and enforcing the local controls should be paid by the Army.

*The Army will be responsible for the implementation of the LUCIP. The Army cannot enforce local regulations. The Army does not believe that there are any additional expenses that the town will bare as a result of the LUC implementation or the enforcement of any new or existing local regulations that restrict groundwater use within the area of LUCs.*

5. The Ayer DPW will need to repair, replace and extend buried utilities in the impacted area. Other utility companies (gas & electric) also have buried utilities in the area that will need excavation. This may impact the contaminated groundwater. The ESD needs to address in detail and specific requirements for material, excavation, dewatering, disposal of excavated

material and groundwater and worker protection. In addition, the additional costs related to these requirements need to be paid for by the Army.

*The depths of arsenic impacts is greater than 20 feet below grade and are not at the typical depths where utility lines are lain.*