

Guidelines for Calculating General Land Area Minimum

January 17, 2018

I: Introduction

The Comprehensive Permit Statute under M.G.L. Chapter 40B Sections 20-23 was adopted in 1969 by the Massachusetts Legislature to “address the shortage of low and moderate income housing in Massachusetts and to reduce regulatory barriers that impeded the development of such housing.” Subsequently, the Massachusetts Department of Housing and Community Development (DHCD) issued 760 CMR 56.00, which “set forth comprehensive standards and procedures” governing Comprehensive Permits, addressed the Subsidized Housing Inventory (SHI), and advanced the statutory purposes of M.G.L. Chapter 40B Sections 20-23 “by clarifying the procedures of the expedited review process, and by otherwise addressing recurring questions of interpretation.”

Section 56.03 of 760 CMR defines the methods for measuring progress toward local housing goals, and under sub-section 56.03 (3)(b), it defines the standards for calculating General Land Area Minimum.

By establishing standard methods, data sources, and formats for calculating General Land Area Minimum, these guidelines will produce applications that are transparent, reproducible, and comparable across communities. DHCD has issued these guidelines to increase fairness, improve the efficiency of the application review process, and to ensure consistency with the intent of the regulations.

II: The Regulations for General Land Area Minimum

760 CMR 56.03(3)(b) reads as follows:¹

General Land Area Minimum. For the purposes of calculating whether SHI Eligible Housing exists in the city or town on sites comprising more than 1½% of the total land area zoned for residential, commercial, or industrial use, pursuant to M.G.L. c. 40B, § 20:

1. Total land area shall include all districts in which any residential, commercial, or industrial use is permitted, regardless of how such district is designated by name in the city or town's zoning by law;
2. Total land area shall include all un-zoned land in which any residential, commercial, or industrial use is permitted;
3. Total land area shall exclude land owned by the United States, the Commonwealth or any political subdivision thereof, the Department of Conservation and Recreation or any state public authority, but it shall include any land owned by a housing authority and containing SHI Eligible Housing;
4. Total land area shall exclude any land area where all residential, commercial, and industrial development has been prohibited by restrictive order of the Department of Environmental Protection pursuant to M.G.L. c. 131, § 40A. No other swamps, marshes, or other wetlands shall be excluded;
5. Total land area shall exclude any water bodies;
6. Total land area shall exclude any flood plain, conservation or open space zone if said zone completely prohibits residential, commercial and industrial use, or any similar zone where residential, commercial or industrial use are completely prohibited.
7. No excluded land area shall be counted more than once under the above criteria.

Only sites of SHI Eligible Housing units inventoried by the Department or established according to 760 CMR 56.03(3)(a) as occupied, available for occupancy, or under permit as of the date of the Applicant's initial submission to the Board, shall be included toward the 1½% minimum. For such sites, that proportion of the site

¹ This is a transcription of the regulations; other sections of these guidelines refer to 1½% as 1.5%, capitalize “Total Land Area,” and use other modifications that are intended to clarify the guidelines and make them easier to read.

area shall count that is occupied by SHI Eligible Housing units (including impervious and landscaped areas directly associated with such units).

III: Overview

These guidelines are intended to provide municipal Boards of Appeals and prospective Comprehensive Permit Applicants a clear understanding of the process for calculating General Land Area Minimum. Accompanying these guidelines are two appendices:

- Appendix A: Technical Instructions – How to perform the General Land Area Minimum calculation using Geographic Information Systems (GIS) software, along with information on the data, documentation, and file formats that must be included in the submittal.
- Appendix B: Example Calculation – A step-by-step example of the calculation and submittal requirements based on a fictional municipality.

These guidelines also provide a mechanism for Boards of Appeals to request statistics on the acreage occupied by qualifying Group Homes. As the confidentiality of group home addresses is protected by law (including the Health Insurance Portability and Accountability Act (HIPAA) and state privacy law²), and as DHCD does not have access to these addresses, DHCD has established a process through which addresses may be furnished by DDS and DMH to MassGIS on a confidential basis so that the acreage occupied by these homes can be calculated by MassGIS and provided to a municipality that has indicated its intent to invoke the General Land Area Minimum Safe Harbor in response to a Comprehensive Permit application pursuant to 760 CMR 56.03.

DHCD encourages municipalities that believe they may be eligible to invoke the General Land Area Minimum Safe Harbor to review these guidelines to determine what types of research activities, data updating, and analysis will be needed to invoke this Safe Harbor. However, because both the total land area includable in the denominator and the sites of SHI Eligible Housing units includable in the numerator may change over time, whether a municipality may invoke the General Land Area Minimum Safe Harbor in response to a particular Comprehensive Permit application must be determined contemporaneously with the filing of the application. Accordingly, consistent with DHCD regulations, a municipality may not seek a DHCD determination as to whether it has achieved the General Land Area Minimum Safe Harbor outside the context of a particular Comprehensive Permit application. DHCD will not issue advisory determinations.

Section IV: Getting Started

When a municipal Board is considering calculating General Land Area Minimum to see if the municipality is eligible to invoke this Safe Harbor, the Board's first step should be to email DHCD at dhcdglam@MassMail.State.MA.US email address to request the most current official SHI Detail List. DHCD will provide the SHI Detail list within fifteen (15) calendar days. In addition, Boards that anticipate invoking the Safe Harbor in the context of an anticipated Comprehensive Permit application may wish to request a Group Homes Acreage Calculation (defined below) to be performed through MassGIS. Since privacy restrictions limit the ability of municipalities as well as DHCD to access information on Group Home addresses, the Group Homes Acreage Calculation would provide an important benefit to municipalities asserting the 1.5% safe harbor by creating a transparent, consistent and reliable mechanism for calculating group home acreage.

Upon receiving the SHI Detail List, the Board, with help from Town staff or a consultant if necessary, will need to match each SHI listing or portion thereof with a specific parcel and assessors records. This information will be required for MassGIS to accurately de-duplicate parcels that could be double-counted as containing both Group Homes and SHI-Eligible Housing units. To ensure adequate time for the Group Home Area Acreage Calculation to be performed prior to the Board's invocation of the General Land Area Minimum Safe Harbor, the Board must submit an SHI Sites Submission List with a preliminary notice within 21 days from receipt of a copy of the PEL application and with a notice within 7 days of an application for a Comprehensive Permit concerning the project for which the Board anticipates asserting the safe harbor per the instructions under Step 1 below.

² Note, e.g., *Hardiman v. Department of Developmental Services et al.*, Suffolk Superior Ct. No. 2014-01561-H (Mar. 3, 2016).

Section V: Definitions

Actively Maintained: Wooded or vegetated areas will be considered Actively Maintained if they require and receive care and maintenance on a regular basis, including tasks such as planting, seeding, pruning, trimming, watering, mowing, weeding, and irrigation.

Analyst: Personnel or contractor(s) performing the GIS calculations and assisting the Board with compiling necessary documentation for a municipality's General Land Area Minimum submittal.

Applicant: A developer that has filed a 40B Comprehensive Permit application with a municipality.

Board: A municipal Board of Appeals established pursuant to M.G.L. c. 40A, §12, and acting in its capacity to issue a Comprehensive Permit under the powers granted by M.G.L. c.40B, §§ 20 through 23.

Comprehensive Permit and Subsidized Housing Inventory Guidelines: The *Guidelines – M.G.L. c. 40B Comprehensive Permit Projects, Subsidized Housing Inventory*,³ issued by DHCD with respect to c. 40B, most recently updated December 2014, as they may be further updated from time to time. These guidelines are intended to supplement the Comprehensive Permit and Subsidized Housing Inventory Guidelines, which include additional definitions not included here. However, the definition of "Group Homes" included in these guidelines is intended to supersede the definition set forth in the December, 2014 version of the Comprehensive Permit and Subsidized Housing Inventory Guidelines.

Directly Associated Area: Landscaping maintained principally for the benefit of the residents of a development containing SHI Eligible Housing and impervious surfaces adjacent to such a development that may be included in the SHI-Eligible Area. The following features or facilities qualify as Directly Associated: lawns, Actively Maintained flower beds and vegetation, stormwater management facilities as defined in the MassDEP Massachusetts Stormwater Handbook⁴ including both conventional and low-impact BMPs (Best Management Practices), swimming pools, play structures, parking lots, parking structures, walkways, common areas, and recreational and community facilities, so long as those features or facilities are exclusively or principally intended for use by residents of the development containing SHI Eligible Housing units. Features that generally will not be considered Directly Associated include: (a) ballfields, (b) wetlands, (c) non-Actively Maintained wooded or vegetated areas that are not within required side, front, or rear yard dimensional requirements and not within 50 feet of a building footprint, any Excluded Areas, and not limiting the foregoing, lot area in excess of what would be required under the zoning ordinance or bylaw provisions generally applicable in the zoning district, including any applicable zoning overlay district provisions such as a Smart Growth Zoning District or Starter Home Zoning District under M.G.L. c. 40R, for the proposed number of SHI-Eligible Housing units.⁵ Notwithstanding the foregoing, if a development is an Open Space Residential Development developed without a Comprehensive Permit, then Publicly Restricted Open Space that is in private ownership may qualify as Directly Associated so long as the aggregate amount of such area does not exceed the amount of Unrestricted Open Space that would be required for the same number of SHI-Eligible Housing units under any minimum open space requirements of the zoning ordinance or bylaw if the proposed development were not developed as an Open Space Residential Development. The Board must support their assertions of what is Directly Associated with aerial photographs and in some cases additional documentation such as development plans, additional photography detailing site features, and information to demonstrate that wooded or vegetated areas are Actively Maintained. Due to the privacy-related limitations on sharing of Group Home acreage, DHCD has determined as a matter of policy that supportive documentation of Directly Associated Areas with respect to Group Homes will not be required. Instead, the calculation of Directly Associated Areas for Group Homes will be performed by MassGIS as part of the Group Homes Acreage Calculation.

³ <http://www.mass.gov/hed/docs/dhcd/legal/comprehensivepermitguidelines.pdf>

⁴ <http://www.mass.gov/eea/agencies/massdep/water/regulations/massachusetts-stormwater-handbook.html>

⁵ For lots where the underlying zoning district is commercial or industrial, lot area in excess of what would be required under the highest density as-of-right residential zoning district or overlay district for the proposed number of SHI-Eligible Housing units generally will not be considered Directly Associated.

Excluded Area: Those portions of each municipality which may not count toward the Total Land Area, as defined in 760 CMR 56.03(3)(b) (e.g., water bodies, government land, land (zoned or unzoned) in which no residential, commercial or industrial use is permitted, and Previously Registered Inland Wetlands).

GIS (Geographic Information Systems): GIS is defined by MassGIS, as “a computer system capable of assembling, storing, manipulating, and displaying geographically referenced information (i.e. spatial data).”⁶ The state standard for GIS software is Esri ArcGIS and the guidelines herein outline a process for calculating General Land Area Minimum using Esri ArcGIS software.

Group Home: A long-term adult community-based home that is a:

- (a) Department of Developmental Services (“DDS”) or DDS Provider-operated residence offering on-going services and supports to individuals who need intervention with care, supervision, and skills training in activities of daily living, home management, and community integration in a certified or licensed home with paid supported living or supervised living supports; or
- (b) Department of Mental Health (“DMH”) or DMH contracted provider operated residence; that is licensed or certified by DMH for occupancy by DMH clients; and that provides supervised living supports to the DMH clients residing in the home.

Upon adoption of this guidance in final form, this definition will supersede the definition of “Group Home” included in DHCD’s Comprehensive Permit and Subsidized Housing Inventory Guidelines.

Group Homes Acreage Calculation: The Group Homes Acreage Calculation is a process by which the Board can request the acreage of SHI-eligible Group Homes in its municipality in order to invoke the General Land Area Minimum Safe Harbor in the context of a particular Comprehensive Permit application. The locations of Group Homes are required by law to be confidential. For the purposes of calculating General Land Area Minimum, it is not possible to determine the land area that Group Homes occupy based on the number listed in the Subsidized Housing Inventory. Accordingly, DHCD, DMH, DDS, and MassGIS have developed a proposed method for calculating the acreage that Group Homes occupy in a given municipality while maintaining confidentiality. As further specified under these guidelines, in response to a request by a Board intending to invoke the General Land Area Minimum Safe Harbor in the context of an anticipated Comprehensive Permit application, DMH and DDS will provide a list of Group Homes to MassGIS, which will address-match those residences and calculate the eligible area of the underlying parcels. In calculating the eligible area of the underlying parcels, for any parcel less than or equal to one-half acre in size, MassGIS will include the entire parcel area; for any parcel more than one-half acre in size, MassGIS will include all impervious or developed open space land cover categories (which includes lawn areas) within GIS, as well as all areas within 50 feet of a building footprint regardless of land cover category, but will exclude all other land cover categories. The resulting values would be totaled and the Board would be informed of the eligible Group Home acreage as further described under section 1.3 below. Since some Group Homes are located on parcels already identified on the SHI as SHI Sites that contain SHI Eligible Housing units (for example, multi-family developments in which one or more apartments are being used as Group Homes), the Board must provide a list of disaggregated and GIS-parcel matched SHI Sites to MassGIS so that these parcels can be removed from the Group Homes list before MassGIS produces the Group Homes Acreage Calculation to avoid double-counting.

MassGIS: The Office of Geographic Information within the Massachusetts Executive Office of Technology Services and Security.

Open Space Residential Development: A residential development in which the buildings and accessory uses are clustered together into one or more groups separated from adjacent property and other groups within the development by intervening publicly restricted open space. An open space residential development shall be permitted only on a plot of land of such minimum size as a zoning ordinance or by-law may specify which is divided into (i) building lots with dimensional control, density and use restrictions for such building lots varying from those otherwise permitted by the ordinance or by-law and (ii) publicly restricted open space.

⁶ <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/about-massgis/whatis.html>, accessed July 7, 2016.

Political Subdivision: For the purposes of these guidelines, Political Subdivisions are defined as the United States, the Commonwealth of Massachusetts, any State public authority, a municipality, or any other government entity. Land “owned by a political subdivision” includes publicly-owned tax exempt fee parcels (but not tax title properties) and publicly-owned rights-of-way, but for the purposes of the General Land Area Minimum calculation, does not include SHI-Eligible Area on housing authority-owned land.

Previously Registered Inland Wetlands: A small number of municipalities in Massachusetts contain wetlands that have been registered with the Commonwealth under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A.) The restrictive orders for these wetlands have been recorded at the Registry of Deeds in the counties in which they are located. The Massachusetts Department of Environmental Protection (MassDEP) lists applicable restrictive orders on its website.⁷ The regulations for General Land Area Minimum do not include restrictive orders on coastal wetlands. The list below identifies the sixteen communities known to MassDEP as having a restrictive order pursuant to M.G.L. c. 131, § 40A, the Inland Wetlands Restriction Act, along with the registration date of the restrictive order: Dedham 12/19/74 ; Dover 6/26/72; Eastham 6/30/75; Hingham 3/26/87; Marlborough 4/20/78; Millis 11/4/77; Needham 9/18/75; Newton 4/22/77; Norfolk 3/31/78; Orleans 11/30/76; Sandwich 3/10/80; Truro 3/18/76; Walpole 1/5/76, ; Waltham 3/30/76; Wellesley 11/10/71; Westwood 4/24/74.

Publicly Restricted Open Space: Open land in private ownership that is subject to a recorded use restriction enforceable by the city or town in perpetuity providing that such land shall be kept in an open or natural state and not be built for residential use or developed for accessory uses such as parking or roadway.

Safe Harbor: A Board’s decision to deny a Comprehensive Permit or grant a Comprehensive Permit with conditions must be upheld by the HAC if the Board can demonstrate that it has satisfied one of the methods to measure progress toward local affordable housing goals defined in 760 CMR 56.03. General Land Area Minimum is among these methods, which are also called safe harbors.

SHI (Subsidized Housing Inventory): The list compiled by DHCD containing the count of low or moderate income housing units, as well as other eligible housing units, by city or town. This list also includes the percentage of SHI Eligible Housing units in the municipality out of the total housing units counted during the most recent Decennial Census.

SHI Detail List: The SHI Detail List is an inventory maintained by DHCD, which enumerates all SHI Eligible Housing in the Commonwealth, along with the following information: the municipality, project names, addresses (other than confidential addresses such as Group Homes), the number of SHI Eligible Housing units, whether a comprehensive permit was used, when the term of affordability expires, the project’s tenure (ownership or rental), and agencies funding the project. The list requires some analysis and reformatting (described in Step 1) for use in the General Land Area Minimum calculation.

SHI-Eligible Area: The portion of each SHI Site that is occupied by SHI Eligible Housing units including impervious and landscaped areas Directly Associated with such units.

SHI Eligible Housing: Housing that is eligible to be counted on the SHI pursuant to 760 CMR 56.02 and section II.A of the Comprehensive Permit and Subsidized Housing Inventory Guidelines, and these guidelines.

SHI Sites: The parcels or portions thereof containing SHI Eligible Housing units.

SHI Sites Submission List: The list of disaggregated and parcel-matched SHI Sites to be provided by the Board in accordance with sections 1.1-1.3 below. If SHI Eligible Housing occupies multiple Assessors’ Parcels, the record is duplicated for each parcel and the SHI Eligible Housing units are allocated to individual parcels (*pro rata* or based on actual distribution) so as not to be double-counted.

Total Land Area: The portion of the municipality not covered by Excluded Areas (water bodies, government land, land (zoned or unzoned) in which no residential, commercial or industrial development is permitted, and certain registered wetlands.) This is the denominator for the General Land Area Minimum percentage calculation.

⁷ <http://www.mass.gov/eea/agencies/massdep/water/watersheds/communities-with-previously-registered-wetlands.html>

Unrestricted Open Space: The part or parts of a lot which are reserved for the use of occupants of a building which is used wholly, or in part, for residential purposes, as may be further defined in the provisions of a zoning ordinance or bylaw requiring minimum open space per lot or dwelling unit, and subject to minimum dimensions as prescribed in the zoning ordinance or bylaw.

Section VI: Submittal Requirements

DHCD requires all application materials to be submitted in specified electronic formats that will enable reviewers to validate the results. The Board must submit digital files showing the boundaries of Total Land Area, Excluded Areas, and the SHI-Eligible Area, and the individual components thereof. Submittals must use digital parcel data compliant with the state's Level 3 Digital Parcel Standard.⁸ If a municipality believes that digital parcel boundaries and/or resulting calculated area are incorrect, it may use surveyed⁹ boundaries to update the digital parcels, so long as it also provides the same for all adjacent parcels.¹⁰ Submittals that do not include documentation evidencing that the updated digital parcel data is compliant with the Level 3 standard as determined through MassGIS' quality assurance program and that the surveyed boundaries were surveyor stamped within the last year will be considered incomplete.¹¹ The Board must also provide accompanying tables with details on each SHI Site, including Directly Associated Areas. This data, along with maps and calculations, must be provided to the Applicant and DHCD within fifteen (15) days of the Board opening a hearing regarding the Comprehensive Permit filed by the Applicant.

The technical instructions and specifications of the guidelines reference Esri ArcGIS mapping software. Submittals must be Esri-compatible. Details regarding what must be included in the submittal are included in Appendix A.

⁸ <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/l3parcels.html>.

⁹ Survey meeting the minimum standard detail requirements for ALTA/ACSM land survey titles (see <http://www.malsce.org/malsce/file/20110223ALTAACSMLandTitleSurveyStandard2011.pdf>).

¹⁰ Municipalities are strongly encouraged to submit updated Level 3 parcel data to MassGIS at the earliest opportunity.

¹¹ Surveys must have been created or updated within the last year as evidenced by a surveyor stamp with date and signature.

Step 1: Identify Parcels Containing Subsidized Housing (SHI Sites)

Creating a complete and standardized list of parcels containing SHI Eligible Housing units is the essential first step in the General Land Area Minimum calculation. Each housing listed on the SHI Detail List, as well as any other recently approved SHI Eligible Housing identified by the Board, must be matched to a specific parcel or parcels.

The Analyst will need to complete the following steps.

1.1. Prepare a complete list of SHI Sites

DHCD will provide the most current SHI Detail List for the municipality within 15 days of receiving notification from the Board. The municipality may also begin with its own list of SHI Eligible Housing. The Board should review and (if necessary) augment the SHI Detail List so it is a complete inventory of all developments or units that meet SHI Eligible Housing criteria which are occupied, available for occupancy, or under permit as of the date of the Applicant's initial submission to the Board. The Board shall provide documentation for any units not already listed on the SHI Detail List to evidence that such units satisfy SHI Eligible Housing criteria in accordance with DHCD regulations and guidelines. Following the technical instructions in Appendix A, the Board shall prepare a table of these "SHI Sites" in a specified format that can be used in GIS.

1.2. Match each development to a specific parcel or parcels to create the SHI Sites Submission List

The next step is to address match each development (including SHI Eligible Housing that consists of a single unit) to a land parcel, using standardized digital property records maintained by the municipality or available from MassGIS in accordance with the technical instructions in Appendix A. Scattered site or multi-parcel developments will need to be disaggregated into their constituent parts and matched to the corresponding parcel. The purpose of joining the list of SHI Sites to digital parcels is to ensure that all the developments in the SHI Detail List are identified by location, as well as to provide the data needed so MassGIS can perform the Group Homes Acreage Calculation if requested. At a later step in the process the Analyst will calculate the eligible area of each parcel.

1.3. Provide the SHI Sites Submission List to DHCD for the Group Homes Acreage Calculation (if applicable)

If the Board wishes to proceed with the Group Homes Acreage Calculation, the Board must provide a preliminary request/notice of interest of such calculation to DHCD, DMH and DDS within 21 days from receipt of a copy of the PEL application (i.e., a PEL application concerning a project for which the Board anticipates asserting the General Land Area Minimum Safe Harbor). This notice must also include the SHI Sites Submission List to ensure adequate time for the Group Home Area Acreage Calculation to be performed prior to the Board's invocation of the General Land Area Minimum Safe Harbor. Within 7 days of the Comprehensive Permit application, the Board must submit notice to DHCD, DMH and DDS requesting the Group Homes Acreage Calculation together with the SHI Sites Submission List. All notifications must be made via email to the following addresses: dhcdqlam@massmail.state.ma.us (DHCD); dmhqlam@MassMail.State.MA.US (DMH); and ddsglam@MassMail.State.MA.US (DDS).

Once it has received the SHI Sites Submission List, MassGIS will review that data to determine whether it is sufficient for MassGIS to perform the Group Home Acreage Calculation; if it is insufficient, MassGIS will promptly inform DHCD and DHCD will promptly inform the Board. If the information is sufficient, MassGIS will address match each Group Home address received from DMH and DDS pursuant to a strict confidentiality agreement to a land parcel, using digital parcel data compliant with the state's Level 3 Digital Parcel Standard property records as specified above. MassGIS will then compare the address-matched list of Group Homes to the address-matched SHI Sites Submission List provided by the Board, remove any duplicated parcels from the Group Homes list, and calculate the SHI-Eligible Area of the remaining Group Homes parcels. Such calculation will include proration where the number of Group Home units in a property is less than the total number of units at the property. This acreage, and this acreage only, will generally be transmitted to DHCD and the ZBA within 30 days of requesting the

Group Homes Acreage Calculation together with the SHI Sites Submission List. MassGIS will promptly relay the Group Homes Acreage Calculation to the Board; the Board may then include the Group Homes Acreage Calculation as part of its General Land Area Minimum calculation.

Step 2: Calculate Total Land Area

The following section outlines how Total Land Area is to be calculated. The technical instructions in Appendix A provide step-by-step instructions on this calculation. 760 CMR 56.03(3)(b)(7) requires that “no excluded land area shall be counted more than once,” and as this is an iterative subtraction exercise, it is important for the Analyst to complete and provide the necessary documentation for each step, even if individual steps do not ultimately affect the final result.

The Analyst will need to complete the following steps.

2.1. Identify Total Land Parcel Acreage within the Municipality

Identify the total acreage of parcels within the municipality pursuant to the instructions in Appendix A

2.2. Identify Areas to be Excluded from the Total Land Area

Using data from MassGIS, the Analyst will identify the boundaries of water bodies. Because all Previously Registered Inland Wetlands (if applicable) and areas where all commercial, residential, or industrial use is prohibited in accordance with 760 CMR 56.03(3)(b) may not be available as spatial data through MassGIS, the Analyst must identify these areas through spatial data in Esri-compatible format along with thorough supporting documentation. Using parcel data compliant with the state’s digital parcel standard, the Analyst will identify publicly-owned rights-of-way and publicly-owned (local, state, federal) parcels (except housing authority land occupied by or Directly Associated with SHI Eligible Housing). These are collectively known as Excluded Areas which must be removed from the Total Land Area.

2.3. Remove Excluded Areas from Total Land Area

The most current digital parcel data (compliant with the MassGIS parcel standard) serves as the basis for calculating total land area. Excluded areas identified above are erased from the parcel base map. The total area of the remaining parcels is then calculated in GIS. This is the Total Land Area, the denominator of the General Land Area Minimum calculation.

Step 3: Calculate SHI Eligible Area

The numerator of the General Land Area Minimum calculation may only include the portion of each SHI Site that is occupied by SHI Eligible Housing units and impervious and landscaped areas Directly Associated with those units. This section describes how the parcel data for each SHI Site should be edited to remove areas that are not Directly Associated. Further calculations may be required if only a portion of the units on a parcel are eligible for the SHI.

The Analyst will need to complete the following steps.

3.1. Remove areas that are not Directly Associated from SHI Site parcels.

Using existing data overlays or manual edits, the Analyst must modify the boundary of each SHI Site to include only areas Directly Associated with the SHI Eligible Housing units. Digitized wetlands, water bodies, and other surveyed or mapped features (either publicly available data or detailed information from site plans and engineering documents) can be removed using automated GIS tools. Other features (such as wooded areas or recreational facilities that are not Directly Associated) may require the Analyst to manually draw the boundaries based on aerial photos.

If the Board would like to include an area that appears heavily vegetated in the aerial imagery, it must provide photographs and other documentation about the SHI Eligible Housing units to demonstrate that the vegetated area is Directly Associated with the units. Similarly, if the Board believes other areas meet the definition of Directly Associated, such as impervious surfaces or landscaping at the ground level that cannot be seen from aerial imagery, it must provide photographs and other documentation about the

development to demonstrate that the area is directly associated with the development. For sites where the aerial imagery does not depict current conditions, or where permitted SHI Eligible Housing units have not yet been constructed, the boundaries of the SHI Sites should be edited accordingly, reflecting current conditions or development plans for SHI Eligible Housing units. The Board must provide site plans, photographs, and any other supplemental materials that document site conditions for any edited SHI Sites.

3.2. Calculate preliminary SHI-Eligible Area

Once the SHI Sites have been properly edited to include only the portions of parcels Directly Associated with SHI Eligible Housing units, the acreage of these sites shall be recalculated in GIS. The Analyst will provide all necessarily tables and GIS files to show the steps of this this calculation, and will also provide maps depicting each of the SHI Sites with aerial photographs and edited site boundaries.

3.3. Calculate prorated SHI-Eligible Area

Since 40B and the SHI guidelines treat rental and ownership units differently, the eligible area for rental and ownership must be calculated differently. For rental and Assisted Living Facility developments, if at least 25% of units are to be occupied by households earning 80% or less than the area median income, or alternatively, if at least 20% of units are to be occupied by households earning 50% or less of area median income,”¹² and meet all applicable SHI eligibility criteria, then all of the units in the development are eligible for inclusion on the SHI. Accordingly, in General Land Area Minimum calculations, the whole SHI-Eligible Area of a rental or Assisted Living Facility development may be counted towards the numerator. For rental or Assisted Living Facility developments in which less than the requisite percentage of the units are to be occupied by income eligible households earning at or below 80% or 50% of the area median income, as applicable, and for or homeownership and Continuum of Care Retirement Communities (where only the deed-restricted low-income housing units count towards the SHI), SHI-Eligible Area must be prorated accordingly. This part of the General Land Area Minimum calculation is done outside GIS. Once the prorated areas have been calculated, the Analyst must check to ensure the prorated area is not larger than the lot area that would be required by zoning for an equivalent number of units. If the prorated area exceeds this required lot area, the excess acreage is not Directly Associated with SHI Eligible Housing units and will not count toward the SHI-Eligible Area. In cases where the required lot area is less than the prorated area, the prorated area would be used.

Step 4: Calculate Results

4.1. Determine General Land Area Minimum percentage

In a separate spreadsheet, the Analyst will calculate the General Land Area Minimum. First, the Analyst will calculate the sum of the acreage of known SHI-Eligible Area (for SHI Sites on the SHI Sites Submission List), and, if applicable and available, the acreage produced by the Group Homes Acreage Calculation as further described under section 1.3 above. This total acreage will then be divided by the acreage of Total Land Area to yield the municipality’s General Land Area percentage. This percentage, along with all the documentation of previous steps and associated GIS files, spreadsheets, and additional materials, must be submitted in electronic format and hard copy to DHCD for review and their official determination of the municipality’s General Land Area Minimum in accordance with 760 CMR 56.03(8).

¹² <http://www.mass.gov/hed/docs/dhcd/legal/comprehensivepermitguidelines.pdf>, II-4.