

**Version 2.0 Transition Process:**

**NEW VERSION 2.0**

Version 2.0 Transition Note: MSBG Version 2.0 contains a number of substantial changes from Version 1.1 including a renumbering of most guidelines and new features to make documentation easier. As in the last version, all projects funded with state bond money since 2004 are required to follow B3-MSBG guidelines and submit documentation both to the "appropriated agency" (The agency that received the bond funds on behalf of the project) and CSBR (at stron081@umn.edu). The required documentation is specified in the new 2.0 Version.

If your project team has completed Design Development Phase and submitted their MSBG compliance forms as of September 7th, 2006, you may continue to use MSBG Version 1.1 throughout the rest of the design, construction, construction administration, and commissioning phases of the project. If you haven't reached that point in the design process, we would like you to use the new B3-MSBG Version 2.0. We think that you will find them easier to use. We would appreciate any feedback you might have to make B3-MSBG easier to use and improve the reporting method.

For additional questions on your role in regards to the guideline either contact your "appropriated agency" or CSBR: Richard Strong at 612-624-7327 or stron081@umn.edu for assistance.

**The major changes to Version 2.0, released September 1, 2006 from the prior Version 1.1 are as follows:**

**Organizational and New Feature Changes**

- Outcome documentation has been made more user friendly, and more directly tied to each guideline in response to pilot feedback. It appears longer, but in actuality it provides tables to fill in, where before one had to create their own tables in many cases. Cells requiring input are highlighted for ease of use.
- Outcome documentation has also been moved from the last guideline of each section into a set of forms, referenced by guideline P.1 Guideline Management. These forms are also cross-referenced from the overview for each section (Site, Energy, etc.) and also from each individual guideline.
- In response to pilot feedback, outcome documentation indicates in what phase the documentation is due.
- The guidelines have been reordered and renumbered so that all of the required guidelines come first, followed by the recommended guidelines. Note that within each required guideline there may be both required AND recommended criteria. Nevertheless, moving guidelines that are entirely voluntary to the end of the list, makes guidelines easier for teams to use.
- The main body of the guidelines has been streamlined to include only the most top-level reference information. Other information such as suggested implementation, reference tables, and other detailed material has been moved to worksheets or appendices since these are primarily of interest only to the detailed user of each guideline. This effectively makes the main body of the guidelines very similar to what was called the 'summary version' in Version 1.1. Thus there is no need for a separate summary version in Version 2.0.

- Sub criteria under each guideline are now lettered for easier reference. (For example guideline E.4 has 4 sub criteria that can be referred to as E.4A, E.4B, etc...) This sub lettering is carried over into the compliance forms, to make it easier for teams to split up responsibility for portions of guidelines.
- In each guideline, where applicable, resources have been sorted into “Compliance Tools and Resources” and “Supplemental Resources” to help the team prioritize the most *relevant* resources needed or recommended for compliance (whereas before they had been sorted by *type* of resource.)

### Technical and Content Related Revisions

Some guidelines, while retaining their original intent have been substantially reworked to make compliance and documentation more straightforward. Some guideline criteria have shifted between required and recommended or visa versa. And other guidelines and their criteria have been substantially reworked. The titles have changed on a number of the guidelines. A summary of major changes is discussed below by section and guideline. The following represents highlights, but not all of the revisions. If you are interested in more detail on what has changed, contact Jonee Kulman Brigham or Rich Strong at CSBR.

#### FRONT PAGES AND INTRODUCTION

- Acknowledgements and Credits are now a composite of all versions to date
- B3-LEED comparison table has been replaced by a more succinct list of B3 guidelines. A LEED comparison table updated for MSBG version 2.0 and LEED Version 2.2 will be developed later as a supplemental tool.

#### PERFORMANCE MANAGEMENT

##### Required Guidelines

##### P.1 Guideline Management

- The requirements to complete documentation forms all fall under this guideline now instead of the prior version where there were five separate guidelines requiring documentation

##### P.2 Planning for Conservation

- Provides more clear requirements for evaluation, and streamlined forms to fill in.

##### P.3 Integrated Design Process

- Fewer of the criteria are required now

##### P.4 Design and Construction Commissioning

- Retains the bulk of the original content but has been restructured with more clear delineation of sub tasks for easier division amongst responsible parties. There are also added role assignment matrices in associated appendices.

##### P.5 Operations Commissioning

- Retains the bulk of the original content but has been restructured with more clear delineation of sub tasks for easier division amongst responsible parties. There are also added role assignment matrices in associated appendices.

##### P.6 Lowest Life Cycle Cost

- Reduced scope of required criteria, focuses now on energy conservation lifecycle cost
- More thorough lifecycle cost analysis than this moves to a recommended criteria

## SITE AND WATER

- This section has been substantially restructured and reworked as a whole.

### Required Guidelines

#### S.1 Avoidance of Critical Sites

- Definitions of critical sites have been refined and expanded. Some now also include associated buffer zones.

#### S.2 Stormwater Management

- This guideline has been substantially revised and expanded

#### S.3 Soil Management

- This new guideline incorporates construction site disturbance limits that had been in another guideline, and significantly expands the list of required soil management criteria.

#### S.4 Sustainable Vegetation Design

- Revises and expands former “restore site” guideline. Describes site management practices related to S.1 in acknowledgement that critical sites will not always be able to be completely avoided.

#### S.5 Light Pollution Reduction

- Clarifies light trespass requirements and recommended light quality criteria, adds recommended criteria for light pollution/sky glow and lighting control zones

#### S.6 Erosion and Sedimentation Control

- Substantially revises and expands former criteria

#### S.7 Landscape Water Efficiency

- Eliminates prescriptive criteria, clarifies performance criteria

#### S.8 Building Water Efficiency

- Clarifications, addition of recommended criteria for higher water conservation performance

### Recommended Guidelines

#### S.9 Appropriate Location and Development Pattern

- Changed from required to recommended due to the very context-specific nature of the opportunities and appropriate responses. Expanded on issues to include overall development pattern criteria.

#### S.10 Brownfield Redevelopment

- Added more resources for reference

#### S.11 Heat Island Reduction

- Clarifications, some additions to criteria

#### S.12 Transportation Impacts Reduction

- Clarifications, Added recommended Operations Policies to complement “built-in” transportation features.

#### S.13 Wastewater Management

- Effectively replaces former guidelines for grey water and biological wastewater treatment
- This new guideline focuses on performance based criteria for reduction of wastewater entering municipal or conventional septic systems via wastewater reduction or alternative treatment or both.

## ENERGY AND ATMOSPHERE

### Required Guidelines

#### E.1 Energy Use Reduction by at Least 30%

- Provides more clear requirements for evaluation, and streamlined forms to fill in.

#### E.2 Renewable and Distributed Energy Evaluation

- Provides more clear requirements for evaluation, and streamlined forms to fill in.

#### E.3 Efficient Equipment and Appliances

### Recommended Guidelines

#### E.4 Atmospheric Protection

## INDOOR ENVIRONMENTAL QUALITY

- Portions of this section are substantially changed, especially some of the Air Quality related guidelines.

### Required Guidelines

#### I.1 Restrict Environmental Tobacco Smoke

- Clarification of owner versus design team responsibilities, minor additions to criteria

#### I.2 Specify Low-emitting Materials

- Simplified both criteria and compliance. Guideline now refers to only one reference standard per type of material, and compliance may be shown by inclusion of pre-approved materials from selected on-line databases

#### I.3 Moisture Control

- Clarified criteria and most relevant reference sources. Eliminated criteria that were redundant with other guidelines.

#### I.4 Ventilation Design

- Substantially revises and integrates three different ventilation guidelines in prior version.
- Required baseline ventilation complies with ASHRAE 62.1-2004. Recommended criteria for monitoring IAQ complement the requirement.

#### I.5 Thermal Comfort

- Clarifications to criteria

#### I.6 Quality Lighting

- Guideline is substantially rewritten and the more qualitative criteria have been changed to “recommended” to reflect what is reasonably measurable in current practice and the state of flux of appropriate recommendations within the lighting industry.

#### I.7 Effective Acoustics

- Clarifications to required criteria, moved articulation index criteria to “recommended”, added other recommended criteria

#### I.8 Reduce Vibration in Buildings

- Prior criteria moved to recommended due to requiring non-mainstream calculation methods.
- New required criteria utilize more mainstream practice-compatible methods.

#### I.9 Daylight

- Moved from recommended to required
- Clarifications to criteria, added criteria to address control of direct solar penetration and daylight controls for electric lighting

## Recommended Guidelines

### I.10 View Space and Window Access

- Clarifications to criteria, and to supporting appendices

### I.11 Personal Control of IEQ Conditions and Impacts

### I.12 Encourage Healthful Physical Activity

## MATERIALS AND WASTE

### Required Guidelines

#### M.1 Life Cycle Assessment of Building Assemblies

- Removes redundant material from P.2 Planning for Conservation, and has a new associated tool to perform life cycle materials scenarios—Worksheet M-1

#### M.2 Evaluation of Environmentally Preferable Materials

- Provides more clear requirements for evaluation, and streamlined forms to fill in.

#### M.3 Waste Reduction and Management

- Clarification of criteria
- Addition of operations waste criteria for both recycling space allocation and operations waste reduction
- Elimination of hazardous waste criteria (due to lack of good reduction methodology beyond what is already covered by other regulations)

## FORMS

- Outcome documentation forms revised to reflect changes in guidelines above
- Added space for narratives of strategies used to achieve performance

## WORKSHEETS

- New worksheet tool provided to do material lifecycle assessment for guideline M.1 above
- Modest clarifications in other worksheets

## APPENDICES

- Detail portions of each guideline have been moved into associated appendices
- All “suggested implementation” sections of guidelines are merged together into five different appendices grouped by topic (Performance Management, Site and Water, Energy and Atmosphere, IEQ, and Materials and Waste)

## GLOSSARY

- Definitions for most of the Baselines removed as the term is used differently and more selectively in Version 2.0