

## 1.1 MISSION STATEMENT

### OUR MOTTO:

Freedom and Learning

### MISSION:

A public, comprehensive, research university established by the Commonwealth of Virginia in the National Capital Region, we are an innovative and inclusive academic community committed to creating a more just, free, and prosperous world.

### OUR VALUES:

#### **Our students come first**

Our top priority is to provide students with a transformational learning experience that helps them grow as individuals, scholars and professionals

#### **Diversity is our strength**

We include and embrace a multitude of people and ideas in everything we do and respect differences

#### **Innovation is our tradition**

We strive to find new and better ways to deliver on our mission while honoring time-tested academic values

#### **We honor freedom of thought and expression**

We protect the freedom of all members of our community to seek truth and express their views

#### **We are careful stewards**

We manage the economic and natural resources entrusted to us responsibly and sustainably

#### **We act with integrity**

We hold ourselves to the highest ethical standards as educators, scholars, students and professionals

#### **We thrive together**

We nurture a positive and collaborative community that contributes to the well-being and success of every member

## 1.2 OVERVIEW OF THE DESIGN MANUAL

Each individual, each department, and each facility plays a part in accomplishing Mason's institutional mission. Mason's physical facilities provide a sense of "presence and welcome" and contribute to the overall learning environment of the university. The Design Manual serves as a framework to align Mason's physical facilities—including capital and non-capital projects on all Mason campuses—with the mission of the university. In addition, it is the intent of the Design Manual to introduce rigorous performance standards, delineate standards for sustainability and accessibility, support administrative procedures for the Facilities department, and provide a system to track the impact of individual projects on the campus as a whole. The Design Manual also incorporates "lessons learned" from previous projects in order to establish a higher standard for future university projects.

The Design Manual is intended to inform and direct the Project Team for any new construction, renovation or alteration of facilities or spaces on a George Mason University Campus. The Design Manual clarifies and defines Mason's procedures and standards, indicates preferences on certain materials used in construction of its facilities, and answers common questions related to construction projects on any campus. The Design Manual supplements the requirements of contracts between the university and its consultants, as well as contractors (including but not limited to the Owner-Architect Agreement, Design-Build Contract, as well as the CM Contract). The Design Manual shall

be considered a fundamental part of the Program provided for each project. Whenever the term “Design Team” is used, it shall apply to the architect and/or engineer. The term “Constructor” shall refer to the construction manager, design builder, and/or contractor. “Project Team” refers to the Design Team, Constructor, and George Mason University.

The current version of the Commonwealth of Virginia Construction and Professional Services Manual (hereafter referred to as the CPSM) is the principal authority on policies and procedures that must be followed in the design and construction of any George Mason University project, whether it is a capital outlay or non-capital endeavor. In some instances, Mason may impose more rigorous standards than required by the CPSM. The Design Manual is intended to supplement, not supersede, the CPSM, nor any industry standards or mandatory codes.

It is the university’s intent to maximize the design potential of each campus building, infrastructure element, or other facility project with the multiple goals of accommodating the programs to be served, fostering collegiality on the campus, and contributing to the positive public image of the university campus. Mason expects each project to achieve long-term endurance and sustainable operations. It is the responsibility of the Design Team and Constructor not only to employ the industry’s best management practices, but also to recommend innovative technologies—balanced with those that are time honored and proven—subject to the university’s review and approval. New designs must cost-effectively overlay the specific, user-generated objectives for the project with the broader and overarching University objectives of institutional identity, durability, longevity, flexibility, and adaptability.

This manual will be available online at <http://facilities.gmu.edu/physicalplant/BldgStandards.htm>. Changes are inherent and updates will be made and posted with a date stamp when necessary. The Design Team and Constructor are responsible for confirming use of the most current version of this manual. Pages have been dated for this purpose.

The Design Team is responsible for producing the best possible life cycle cost building within the constraints of the first cost building budget. Mason does not wish to handicap creative efforts by insistence on blind adherence to requirements; team members are encouraged to think creatively about solving problems throughout the process. Variations will be considered and approved if there is an advantage in terms of risk, time, and cost to Mason to do so. However, intended variations must be brought to Mason’s attention for written approval. Otherwise, the Design Team will be held responsible as indicated in section 1.8 of this manual.

An attempt has been made to establish performance rather than specification standards. The Design Manual is not intended to be a “master specification”; therefore, much of the language in the Design Manual will require modification before being included in the Project Specifications.

To achieve the university’s goals, it is incumbent upon the project design team to invest in an understanding not only of immediate program objectives, but also of the history of planning and architecture on the campus, the intent of the current campus master plan, and particularly the immediate context (precinct and site) of the project.

## **1.3 ORGANIZATION OF THE DESIGN MANUAL**

The text of The Design Manual is arranged in five Parts:

### **Chapter 1 - Introduction and First Principles**

This chapter defines the intent of the Design Manual and the general organization of the document, as well as how the Design Manual is to be used. The first principles of George Mason University, including its approach to

accessibility, sustainability and energy management, and maintenance and operations, are also defined in this chapter.

#### Chapter 2 - Design Process and Procedures

This chapter includes information about administrative procedures that the Design Team must follow in working with the university during the design process. This statement of procedures is intended to establish a smooth operating relationship throughout the design process, from pre-design through construction documentation. Information regarding administrative procedures for the construction process, including bidding, can be found in Divisions 00 and 01 of Chapter 4.

#### Chapter 3 - Design Standards

This chapter defines exterior and interior planning and design, as well as environmental, security and life safety, and accessibility standards.

#### Chapter 4 - Construction Products and Activities

This chapter discusses technical requirements of materials, systems and methods of construction. It is arranged on the basis of the Construction Specifications Institute (CSI) 48-Division Specification Format to include all areas in which the university requires certain minimal standards in the selection of materials and quality of workmanship. When this manual is silent on a particular material, no standards have been developed by George Mason University. In all cases, the Design Team and Constructor are to use professional judgment and, where such judgment indicates material or methods contrary to information found in this manual, must discuss these areas with Mason's Project Manager.

#### Chapter 5 – Mason Standard Details

This chapter contains standard details. These details represent typical standards established by the university and are included to assist the Design Team and Constructor in preparing drawings that are acceptable and uniform for all projects.

## **1.4 PRINCIPLES OF ACCESSIBILITY**

It is a key objective of George Mason University to maintain an accessible environment for all people. To achieve this goal, the university is committed to the following principles:

- Mason supports universal design and strives to make all public spaces and facilities on its campuses physically accessible to people of all abilities, including physical, mental, learning or other.
- Creating an accessible campus is inclusive of interior and exterior spaces, both new and renovated. At a minimum, all designs for new construction and renovations shall be in compliance with applicable state and federal mandates. In instances where Mason's standards exceed state and federal regulations, the most stringent requirement (i.e., most beneficial to persons with disabilities) must be followed.
- Accessibility must be considered in the initial phases of design and throughout the entire process. All members of the design, construction and maintenance teams must maintain a seamless integration of design for people of all abilities.

## 1.5 PRINCIPLES OF SUSTAINABILITY

Mason is committed to providing its students with a transformational learning experience while being a careful steward of its economic and natural resources. In this vein, Mason has two main strategic goals related to sustainability:

- Incorporate sustainability concepts into all learning experiences for students, faculty, and staff to foster a more sustainable culture.
- Aspire to eventual climate neutrality.

These goals are referenced in more detail in [Mason's Climate Action Plan](http://rs.acupcc.org/site_media/uploads/cap/84-cap.pdf) ([http://rs.acupcc.org/site\\_media/uploads/cap/84-cap.pdf](http://rs.acupcc.org/site_media/uploads/cap/84-cap.pdf)) and its [2014 Strategic Plan](http://provost.gmu.edu/wp-content/uploads/2012/01/FINAL_Strategic_Goals_for_2014-1.pdf) ([http://provost.gmu.edu/wp-content/uploads/2012/01/FINAL\\_Strategic\\_Goals\\_for\\_2014-1.pdf](http://provost.gmu.edu/wp-content/uploads/2012/01/FINAL_Strategic_Goals_for_2014-1.pdf)).

The majority of Mason's greenhouse gas emissions are produced from the operations of its buildings. As such, it is essential to improve the design, construction and maintenance of campus facilities, and to create opportunities for awareness-building, education, and research.

It is Mason's expectation that its Design Teams will propose practices, technologies, and designs that are based on life cycle analysis and support efforts to mitigate Mason's current and future impact on the natural environment, with the following goals in mind:

- Create efficient and long-lasting buildings from the design and construction phase through the operations and maintenance phase. This applies especially to energy consumption as the energy consumed in buildings produces the majority of Mason's emissions and is its largest operational expense.
- Support environmentally sustainable site development, especially with regard to storm water management and features that strengthen existing transportation support systems.
- Promote both the understanding and involvement of building occupants of the efforts being pursued within the building, along with their comfort and well-being.
- Apply appropriate design, processes, and tools to minimize waste and increase recycling.

## 1.6 PRINCIPLES OF MAINTENANCE AND OPERATIONS

It is well established that over 80% of the cost of any facility is attributed to the ongoing cost of maintenance and operations, which is why the ability to easily, efficiently, and effectively maintain and operate a facility is critical to the success of any George Mason University project.

Because the implications of a design on the subsequent operations and maintenance are often overlooked, it is important to be aware of how design decisions will impact maintenance and operations. The following standards apply to all new projects at George Mason University:

- Projects at Mason must be cost effective, not only in terms of their first cost, but also the ongoing energy, maintenance, operations, and staffing costs (to name a few). Therefore, the university views full life cycle cost analysis as the best way to ensure the value and longevity of its investments.
- Design, construction and maintenance personnel must be judicious in their selection of materials, equipment, and products to ensure proven performance, longevity, and durability.
- In the design of any project, it is critical that all systems and devices are made accessible for the full life cycle of that piece of equipment, inclusive of major overhauls, replacement of major components, and segmented full equipment recap.
- All design and construction decisions should consider the ease and practicality of future maintenance and modifications. A greater first cost may be required to achieve the best long-term gain. New systems shall be compatible with existing systems as they are emplaced.
- Finally, Mason supports and encourages sustainable maintenance practices that mitigate or arrest harm to the people and the natural environment.

## 1.7 PRINCIPLES OF DESIGN FOR OUR CAMPUSES AND BUILDINGS

As a destination and center for educational, business, social and cultural events for divergent interests and populations, each campus of George Mason University has unique and distinctive characteristics. With an assembly of specialized facilities, natural landscapes, public art and other attractive features, George Mason University's campuses comprise significant settings for educational, research and service activities.

Mason's campus settings must be attractive, progressive, and welcoming. The campus environment must also communicate the importance of the university in our society through its unique sense of place and evolving academic traditions. Each design opportunity, be it campus or building, offers a unique opportunity to create an environmentally and socially responsible physical environment which can create an atmosphere conducive to intellectual discovery and interaction as well as relaxation and contemplation.

Used in conjunction with the George Mason University Master Plan, the following design principals and guidelines are intended to convey an understanding of the specific objectives and design intentions that contribute to: the qualities of the physical environment; a unity of visual character; a unique sense of place; and activities that are encompassed at various Mason campuses and locations.

George Mason University's campus and building design should strive to achieve the following goals which generally align with Smart Growth development principals:

- Preserve natural beauty, open space (lawns, fields, plazas, quads etc), and critical environmental areas
- Foster a distinctive, attractive campus with a strong sense of place
- Create a walkable campus
- Mix land uses
- Take advantage of compact building design
- Create a range of housing opportunities and choices
- Strengthen and direct development towards existing academic core and residential neighborhoods
- Provide a variety of transportation choices (emphasizing the reduction of single occupancy vehicle trips)
- Make development decisions predictable, fair, and cost effective
- Encourage university community and stakeholder collaboration in development decisions

## **1.8 ENFORCEMENT OF THE DESIGN MANUAL**

As stated previously, the Design Manual is intended to provide guidance to all parties involved in the design and construction process at Mason. It is critical that efforts be made to ensure the provisions are followed, and that any exceptions are executed in a transparent, open, and explicit manner.

To facilitate this process, during each design submittal and/or modification to the design of a project (new construction, renovation, rehabilitation, maintenance effort, and so forth), the designer of record will provide a listing of any exceptions taken to this manual or certify that there are no such exceptions taken. Any exceptions will be reviewed through an internal Mason procedure that will result in a written approval of exception by the Vice President of Facilities. Once approved, the modification can be used without further recourse. In the event that an exception is not noted by the designer of record, and it is subsequently found that an exception was made, the university will consider cost sharing with the designer for the required change in order to align the project with the Design Manual. It is incumbent upon designers to review and aide in the enforcement of these procedures throughout the process.