UNIVERSITY OF MICHIGAN

SITE FURNISHINGS STANDARDS MANUAL



University Planner's Office

Architecture, Engineering & Construction

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http://www.umaec.umich.edu/

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The Site Furnishings Standards Manual is a companion to the AEC Design Guidelines, which designers must also adhere to (http://www.umaec.umich.edu/desguide/index.html).

Introduction

Intent: The landscape furnishings standards identify design considerations and recommend specific products to be used on the University of Michigan (U-M) campus. Unification of campus environment can be achieved through common landscape furnishings, colors and materials. The intent of these guidelines is to provide clear directions concerning site furnishings for the U-M campus, and to promote consistent and predictable use of public art, lighting, furnishings and fencing.

Flexibility: The recommendations presented are strongly preferred; however, furnishings and materials might vary slightly from project to project and over time. It is recommended that the degree to which landscape features vary be minimized and that shared attributes, such as forms, materials, patterns, style, application-spacing and color be consistent. In special situations, alternatives may be evaluated on a case-by-case basis to ensure that the design standards are followed.

Exceptions: Any exceptions to the guidelines will require review by the University Planner's Office (UPO) and the Exterior Elements Design Review Committee (EEDR).

Principles: Standard campus furnishings can help to integrate the campus environment and can further advance the sense and legibility of the place. The following principles summarize the intent of the guidelines.

1) Unification with common design elements
    a. Develop uniform landscape and site treatments for common problems and issues.
    b. Establish a more unified palette of materials for lighting, site furnishings, and landscape and hardscape elements.
    c. Enhance campus legibility and structure of campus.
2) Beautification and appearance of the campus
    a. Maintain and improve the visual quality of campus landscape.
    b. Establish a more visible and compelling public art presence.
    c. Develop signature amenities and improvements throughout the campus areas.
    d. Cluster furnishings to maximize effective use and minimize the negative visual impact within landscape.
3) Others
    a. Minimize and standardize maintenance requirements.
    b. Provide a safe and comfortable campus.
    c. Consider the limitations and needs of persons with disabilities to minimize potential obstructions and hazards.
    d. Minimize life-cycle costs by utilizing high quality products that are durable, backed by a solid warranty and vendor reputations and are comfortable and aesthetically pleasant.
    e. Provide furnishings where there is an existing demonstrated or potential future need.
    f. Install per U-M campus standards.

1. Campus Landscape Design Elements

The following section describes the recommended site furnishing material selection and design detail opportunities that will comprise the campus landscape design vocabulary. It is intended that repetitive use of this design vocabulary in the various campus development projects will result in a more organized, unified and beautiful campus. A single style of furnishings for each element described in the manual should be used exclusively to establish a unified and attractive campus character.

A. SEATING

1) Surface Mounted/In Ground Benches

a) Design Considerations

- Select bench locations in potential gathering areas to create comfortable settings conducive to conversation as well as security.
- Locate in a comfortable setting protected from vehicles/elements, and preferably with some landscaping and shading from the sun.
- Backless benches may be used in places where two-sided access and use are expected.
- Metal is preferred for durability.
- Complement existing standard furnishings, as well as landscape context and architectural features.
- Locate on and anchor to pavement. Benches should be set with a minimum setback of 12"-16" from edge of lawn to reduce damage from maintenance equipment.

b) Design Recommendations

- Plexus II collection from Landscape Forms Inc. is recommended as standard.



- Black powder coat is preferable.
- Alternative products on similar lines, including Forms + Surfaces, Sitescapes, and Victor Stanley, may be considered when approved by UPO.

2) Wall Mounted Benches

a) Design Considerations

- Wall mounted benches are preferred when snow removal and other maintenance is a concern.
- Select bench locations in potential gathering areas to create comfortable settings conducive to conversation as well as security.
- Locate in a comfortable setting protected from vehicles/elements, and preferably with some landscaping and shading from the sun.
- Metal is preferred for durability.
- Complement existing furnishings as appropriate, as well as landscape context, and architectural features.

b) Design Recommendations

- Plexus II collection from Landscape Forms is recommended as standard.



- Black powder coat is preferable.
- Alternative products on similar lines, including Forms + Surfaces, Sitescapes, and Victor Stanley, may be considered when approved by UPO.

3) Chairs

a) Design Considerations

- Freestanding chairs should be considered in courtyards, atriums or places that can be secured. They should not be considered in public or unsecured areas.
- Select chair locations in potential gathering areas to create comfortable settings conducive to conversation as well as security.
- Locate in a comfortable setting protected from vehicles/elements, and preferably with landscaping and shading from the sun.
- Complement existing furnishings as appropriate, as well as landscape context and architectural features.
- Metal is preferred for durability.
- Locate on the pavement with a minimum setback of 12"-16" from edge of lawn to reduce damage from maintenance equipment.

b) Design Recommendations

- Verona collection from Landscape Forms is recommended as standard. Black powder coat is preferable. The recommended specification is a Verona free standing arm chair.



- Alternative products on similar lines, including Forms + Surfaces, Sitescapes, and Victor Stanley, may be considered when approved by UPO.

4) Memorial/Commemorative Benches

a) Design Considerations

- A limited number of options have been approved for use as memorial or commemorative benches, see guidelines (http://www.umaec.umich.edu/eedr/index.html).
- Consult with UPO regarding requests for memorial or commemorative benches.

B. TABLES

1) Café Tables

a) Design Considerations

- If patio areas will be plowed in the winter, coordinate placement with Grounds depending upon the type of equipment to be used.
- Complement existing furnishings as appropriate, as well as landscape context and architectural features.
- Provide trash receptacles in close proximity.
- Locate them near dining and food vending areas.
- Consider umbrellas for shade where ever appropriate. Umbrellas must be permanently anchored to table; tables with umbrellas must be anchored to the ground.
- Locate on and anchor to pavement. Benches should be set with a minimum setback of 12"-16" from edge of lawn to reduce damage from maintenance equipment.
- Tables must be anchored on a clear, paved pathway in order to be wheelchair accessible.
- Five-seat table with an open space for wheelchair access is preferred.

b) Design Recommendations

- The recommended standard is Carousel by Landscape Forms. Both back and backless seats are acceptable.



- Black powder coat is preferable.
- Alternative products on similar lines, including Forms + Surfaces, Sitescapes, and Victor Stanley, may be considered when approved by UPO.

2) Free Standing Tables

a) Design Considerations

- Freestanding tables should be considered in courtyards, atriums or places that can be secured. They should not be considered in public or unsecured areas.
- If patio areas will be plowed in the winter, coordinate placement with Grounds depending upon the type of equipment to be used.
- Complement existing furnishings as appropriate, as well as landscape context and architectural features.
- Provide trash receptacles in close proximity.
- Locate them near dining and food vending areas.
- Locate the table on the pavement. Tables should be set with a minimum setback of 12"-16" from edge of lawn to reduce damage from maintenance equipment.
- Tables must be located on a clear, paved pathway in order to be wheelchair accessible.

b) Design Recommendations

- The recommended standard is a 36" Catena top by Landscape Forms with freestanding base.



- Black powder coat is preferable.
- Alternative products on similar lines, including Forms + Surfaces, Sitescapes, and Victor Stanley, may be considered when approved by UPO.

3) End Tables

a) Design Considerations

- Select locations to create comfortable and multi-functional spaces.
- If patio areas will be plowed in the winter, coordinate placement with Grounds depending upon the type of equipment to be used.
- Complement existing furnishings as appropriate, as well as landscape context and architectural features.
- Provide trash receptacles in close proximity.
- Locate them in potential gathering spaces and near to existing buildings.
- Locate in a comfortable setting protected from vehicles/elements, preferably with landscaping and shelter to the back, and shading from the sun.
- Locate on and anchor the table on the pavement. End tables should be set with a minimum setback of 12"-16" from edge of lawn to reduce damage from maintenance equipment.

b) Design Recommendations

- The recommended standard is the backless Plexus II series bench by Landscape Forms.



- Black powder coat is preferable.
- Alternative products on similar lines, including Forms + Surfaces, Sitescapes, and Victor Stanley, may be considered when approved by UPO.

C. UMBRELLAS

a) Design Considerations
- Consider umbrellas for shade wherever appropriate.
- Umbrellas must be permanently anchored to table.
- Complement existing furnishings as appropriate, as well as landscape context and architectural features.

b) Design Recommendations
- The recommended standard is an 8” Equinox umbrella from Landscape Forms.



- Metal umbrella is preferred.
- Black is the preferred color for umbrella and pole; however, on certain occasions the color can complement surrounding architectural or site features. The powdercoated pole should match the color of the umbrella.
- Alternative products on similar lines, including Forms + Surfaces, Sitescapes, and Victor Stanley, may be considered when approved by UPO.

D. TRASH RECEPTACLES

a) Design Considerations

- Trash receptacles should be compatible with benches and other furnishings, along with building architecture.
- Group with other furnishings to mitigate visual impact.
- Receptacles should be located in areas of high pedestrian traffic, such as sitting areas, building entries, patios, bus stops and campus plazas.
- Ensure trash receptacles are simple and unobtrusive design and easy to service.
- Provide removable insert to dump trash.
- Place in unobtrusive locations with a minimum 3’ setback along main pathways.
- Locate on and anchor the trash receptacle on the pavement. Set receptacles 12"-16" from edge of lawn to reduce damage from maintenance equipment.

b) Design Recommendations

- The recommended standard is Victor Stanley S-242, fabricated metal receptacle, 36-gallon capacity, with domed lid.



- Black powder coat is recommended.
- Alternative products on similar lines, including Forms + Surfaces, Sitescapes, and Landscape Forms, may be considered when approved by UPO.

E. ASH RECEPTACLES

- The University of Michigan is a smoke free campus (as of July 2011), and therefore ash receptacles will not be installed on university property. If issues arise before July 2011, consult UPO.

F. SITE LIGHTING

a) Design Considerations
- Establish lighting theme to complement campus facilities.
- Develop landscape lighting in parking lots that complements street and pedestrian lighting.
- Select and install a uniform lighting equipment style, to reinforce campus design theme. Coordinate selection of lighting equipment with campus standards.

b) Special Lighting Criteria
- Public art and landscape features may be accent lighted in conformity with campus standards and the lamp must be shielded from offsite view.
- Accent lighting equipment shall be of sufficient quality to resist vandalism and minimize maintenance. Preferred luminaries shall be flush to grade.
- Backlit, reverse pan channel signage systems are preferred for optimum readability of signage. LED systems are encouraged.
- Façade lighting shall require special review by the Exterior Elements Design Review Committee.
- Refer to section 16521 of the U-M master specifications on "Outdoor Lighting" for further details http://www.umaec.umich.edu/for.archs/masterspec.html

G. BIKE RACKS

a) Design Considerations

- Select a bicycle rack or hoop style that complements other furnishings and is attractive within the campus environment.
- The design should be simple, space efficient and serviceable.
- Racks should be placed to avoid conflicts with pedestrians. Locate bike loops close to building entrances where ever possible.
- Locating the bike hoops under building overhangs or other sheltered areas is preferable.
- Locate bike hoops close to bike paths, if it is not close to a building entrance.
- Bike parking area should be well lit.
- Work with UPO to decide the appropriate quantity of racks for the site.
- Racks should be installed usually on a wide sidewalk with 8 or more feet of clear sidewalk space remaining.
- Space 3' on center or 2'9" if absolutely necessary. Offset 4-5' from walks and 2' on ends and back to edge pavement.

b) Design Recommendations

- For general campus use, Matte Black PVC coated 1 and a 1/2" SCHD 40 1.9 O.D. bike hoop by S&G products 5117-546-9240 or approved equal.



H. EMERGENCY TELEPHONES

1) Free standing (kiosk)

a) Design Considerations
- Each new exterior project shall consider the installation of additional blue light emergency phones. Designers shall work closely with Department of Public Safety (DPS).
- Locations should be easily accessible to pedestrians, easily maintainable, and reviewed by DPS prior to finalizing design.
- Stagger the emergency phones throughout pedestrian corridors and provide at major road and walk intersections, especially in areas with poor visibility from roads.
- Locate on a concrete pad paved up to walkway for accessibility per university construction standard detail.

b) Design Recommendations
- All telephone stanchion, telephone backbox, beacon, stanchion light, phone and phone line should be furnished and installed by U-M ITCOM.

2) Surface Mounted

a) Design Considerations
- Locations should be easily accessible to pedestrians, easily maintainable, and reviewed by DPS prior to finalizing design.
- Stagger the emergency phones throughout pedestrian corridors and provide at major road and walk intersections, especially in areas with poor visibility from roads.
- Surface mounted phones should be considered when the surface below is occupied and creates limited conditions. Surface mounted is also preferred when a pedestrian way located adjacent to a building; when trying to avoid any obstruction in snow removal from pedestrian ways; and where there is need to locate on tunnels/vaults.

b) Design Recommendations
- All telephone stanchion, telephone backbox, beacon, stanchion light, phone and phone line should be furnished and installed by U-M ITCOM.

I. FENCING/RAILING

1) Ornamental Fence

a) Design Considerations
- Utilize along campus periphery, especially along roads and main corridors.
- Use within campus when aesthetically appropriate.

b) Design Recommendations
- Railing should be anodized aluminum with dark brown bronze powder coat finish. Other finish colors may be utilized depending on the location but require approval but UPO.
- Railing should be J.G Braun company series 950 style B heavy-duty aluminum railing or any equivalent approved by UPO.

2) Chain Link Fence

a) Design Considerations
- Use minimally and with discretion for enhancing safety or for a special area that needs protection from pedestrian traffic, or to restrict a vehicle from illegally leaving a parking lot.
- Minimize use along major pedestrian and vehicular thoroughfares.
- Use 2" spacing for general purpose and smaller openings for high-security areas.

b) Design Recommendations
- Black welded steel construction chain link is generally preferred.
- Use of black vinyl screen is recommended.
- Installation to follow U-M construction standards.

3) Post and chain

a) Design Considerations
- Post and chain is generally used for pedestrian control and is not intended for security and safety. However, this should be used as a last resort when it is not possible to redesign the landscape to direct pedestrians away from a sensitive area.
- Use single chain for vehicular control and double chain design for pedestrian control.
- It is used in areas where portable separation is needed, since this can be moved when necessary.

b) Design Recommendations
- Post and hardware available from South Lyon Fence. Chain is 5/16” black metal.

J. INFORMATIONAL KIOSKS AND SORC POSTING BOARDS

1) Informational kiosks for flyers

a) Design Considerations
- Locate on top of vents that are along major pedestrian corridors.
- Location should not be an obstruction during snow removal.
- Placement to be approved by UPO and EEDR.

b) Design Recommendations
- The information kiosk is custom designed and built, see UPO for details. Refer here for more information.



2) Student Organization Resource Center (SORC) boards

a) Design Considerations
- Locate along major pedestrian corridors and at major pedestrian gathering spots.
- Incorporate surfaces that display variety of information in a variety of directions.
- Location should not be an obstruction during snow removal.
- Placement of SORC boards is to be approved by UPO.

b) Design Recommendations
- The posting board follows a specific design that requires custom construction.



K. PLAZAS

a) Design Considerations
   - Provide appropriately sized space and furnishings that promotes social gatherings, sitting and group gatherings.
   - Create visual interest and encourage design responses that consider incorporation of appealing pavement patterns, seating, artwork, walls and spatial organization.
   - Avoid designs that create too much enclosure and create security hazards.
   - Contact UPO regarding design process.

b) Design Recommendations
   - Provide amenities like lighting and furnishings from a standard palette as a component of design.
   - Contact UPO for guidance.

L. SCREEN WALLS

a) Design Considerations
   - Screen walls should be placed so they do not block important views or impede visibility of vehicles.
   - Retaining walls should not be higher than 18” from grade to top of slope, otherwise a handrail will be required.

b) Design Recommendations
   - For visible areas, use an architectural concrete/stone or masonry.
   - For less visible areas, concrete is appropriate.

M. BUS SHELTERS

a) Design Considerations
- The A/E should work with UPO, Parking and Transportation Services and Public Safety to locate shelters.

b) Design Recommendations
- Contact UPO for the standard model information.



N. BIKE SHELTERS

c) Design Considerations
- Locate in high-use areas where existing bike racks are exposed to the elements.
- Cluster bike parking in groups that serve multiple buildings.
- Ensure that the placement of the parking and shelter do not impede the flow of pedestrians or otherwise block the ingress/egress of fire and emergency vehicles or personnel.

d) Design Recommendations
- The recommended standard is Duo Guard's Parachute, modified to U-M specifications.
- Frosted glass top and black powdercoated steel is preferred.



O. SIGNAGE

- Exterior signage follows specifications as set forth in the Wayfinding and Signage Guidelines (http://www.umaec.umich.edu/eedr/index.html). Consult with UPO in regard to all exterior signage.

P. PUBLIC ART

- Placement of public art on the campus grounds is administered by the President's Advisory Committee on Public Art (http://www.public-art.umich.edu), with site requirements determined by the UPO.