Campus Design Standards
Details and Specifications
1. Introduction to Campus Design Standards

The consistent use of a quality palette of site materials and furniture at UMass Amherst is critical to upgrading and simplifying the campus environment. The installation of campus-wide standards - pedestrian pavements, benches, waste and recycle bins, ash receptacles, bicycle racks and storage, tables and chairs, fencing, and lighting - will provide and maintain visual coherence and facilitate long-term maintenance.

The campus standards promote a consistent design vocabulary, include those existing elements that currently work well from aesthetic, functional and cost perspectives, and are proposed for use on the entire campus.

Final design of site pavements, structures and improvements shall incorporate appropriate score joints, expansion joints, new fencing, dimensions and base materials and thicknesses, based upon project specific engineering.

Repair and renovation projects as well as new construction provide ample opportunities for the campus landscape to be upgraded to meet the standards described in this document, and all efforts should be made to do so. However, the University accepts that in some cases a project may have only an incidental effect on the campus landscape, such that an upgrade to these standards may appear abrupt and discontinuous with the rest of the surroundings, defeating the goal of a consistent design vocabulary. In those cases, it is appropriate for the site to be returned to the existing conditions until a more advantageous opportunity for a larger area of improvement may arise. In all cases, first consult with the Planning staff in the Facilities and Campus Planning Division before determining to return the site to its existing conditions.
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2. CONCRETE PAVEMENT (PEDESTRIAN)

Option A - Steel Reinforced:

- **Item Description:**

Two width ranges are proposed for concrete pavement in pedestrian areas:

8 feet - 12 feet for Major Pathways (Design Guidelines 2.2.7)

8 feet for Standard Pathways (Design Guidelines 2.2.8)

- **Materials:**

All Major and Standard Pathways shall be 5000 psi, poured-in-place cement concrete, medium broom finish, “window pane” edging, with Chromix admixture “Winter Beige” as manufactured by L. M. Schofield Co., Douglasville GA, (800) 800-9900. Reflectance rating of 0.3 minimum.

4” Thick @ Pedestrian-only Paths

6” Thick @ Paths with Occasional Vehicular Traffic (Service/Maintenance Vehicles)

8” Thick @ Paths with Fire Truck Access
Plan

Expansion or control joint
Smooth trowel edge margins, joints, typ.
Medium broom finish, direction of finish to be perpendicular to the longitudinal direction of pavement; unless otherwise noted on plans.
Expansion joint at curb, building face or vertical structures.

Section

Expansion joints
Sealant to minimize \( \frac{3}{4} \) depth, \( \frac{3}{8} \) polyethylene foam expansion joint; cut back if necessary after pour. 20ft on center unless noted otherwise.
Control joints
4\( ^{\circ} \) x 6\( ^{\circ} \), W1.4 x W1.4 welded wire mesh
6\( ^{\circ} \) x 6\( ^{\circ} \), W2.9 x W2.9 welded wire mesh
5,000 psi concrete
Compacted gravel borrow
Compacted subgrade
2. CONCRETE PAVEMENT (PEDESTRIAN)

Option B - Fiber Reinforced:

- **Item Description:**

  Two width ranges are proposed for concrete pavement in pedestrian areas:

  8 feet - 12 feet for Major Pathways (Design Guidelines 2.2.7)

  8 feet for Standard Pathways (Design Guidelines 2.2.8)

- **Materials:**

  All Major and Standard Pathways shall be 5000 psi, poured-in-place concrete, medium broom finish, “Window pane” edging, with Chromix admixture “Winter Beige” as manufactured by L. M. Schofield Co., Douglasville GA, (800) 800-9900. Reflectance rating of 0.3 minimum.

  4” Thick @ Pedestrian-only Paths

  6” Thick @ Paths with Occasional Vehicular Traffic (Service/Maintenance Vehicles)

  8” Thick @ Paths with Fire Truck Access
EXPANSION OR CONTROL JOINT
SMOOTH TROWEL EDGE MARGINS, JOINTS, TYP.

MEDIUM BROOM FINISH,
DIRECTION OF FINISH
TO BE PERPENDICULAR
TO THE LONGITUDINAL
DIRECTION OF PAVEMENT;
UNLESS, OTHERWISE NOTED
ON PLANS

EXPANSION JOINT AT CURB,
BUILDING FACE OR VERTICAL
STRUCTURES

PLAN

CONTROL JOINT
EXPANSION JOINT
SEALANT TO MINIMUM 4" DEPTH.
POLYETHYLENE FOAM EXPANSION
JOINT: CUT BACK IF NECESSARY
AFTER POUR. 20 FT ON CENTER
UNLESS NOTED OTHERWISE.

CONCRETE PAVEMENT WITH
POLYPROPYLENE MICROFIBERS.
MEDIUM BROOM FINISH
PERPENDICULAR TO LONGITUDINAL
DIRECTION OF PAVEMENT,
UNLESS OTHERWISE SPECIFIED.
TOOLED EDGES AND JOINTS.

COMPACTED GRAVEL BORROW
COMPACTED OR UNDISTURBED
SUBGRADE

SECTION
3. BITUMINOUS CONCRETE PAVEMENT (PEDESTRIAN)

**Item Description:**

One width range is proposed for bituminous concrete pathways:

4 feet - 8 feet for Tertiary Pathways (Design Guidelines 2.2.9)

**Materials:**

All tertiary pathways shall be 3 inch thick bituminous concrete including a 1 inch thick top course of “dense mix” per MHD Specifications Section M3.
SECTION

1" BITUMINOUS CONCRETE TOP COURSE (DENSE MIX)
2" BITUMINOUS CONCRETE BINDER COURSE
8" COMPACTED DENSE GRADED CRUSHED STONE (MIN.)
COMPACTED SUBGRADE
4. BENCH

**Item Description:**

Two bench styles are proposed:

Bench with Back (Design Guidelines 2.4.16)
Backless Bench (Design Guidelines 2.4.16)

**Materials:**

The bench for use throughout the campus shall be Steel Bench with Back, 93 Series or Steel Backless Bench, 164 Series, as manufactured by DuMor Inc., Mifflintown, PA or an approved equal.

Length:
- Bench with Back - 6 ft or 8 ft.
- Backless Bench - 6 ft.

Installation:
Surface mount per manufacturer’s instructions on concrete pad to match concrete sidewalks. Outside corners of pad shall be rounded.

Fasteners:
- Stainless steel

Finish:
- Polyester powder finish in standard black

Seating Surface:
- 1/4” x 1-1/2” steel bar and 2-3/8” O.D. steel pipe

Supports:
- 1-1/8” square steel bar
- 8ft bench has middle legs
University of Massachusetts Amherst
Campus Design Standards
NOTE:
1.) DURING ASSEMBLY PROCEDURE; DO NOT COMPLETELY TIGHTEN HARDWARE.
2.) THE ACTUAL PARTS WILL NOT BE NUMBERED: NUMBERS ONLY APPLY TO DRAWING.

STEP 1:
USE 2 - PCS. BKLESS CAST IRON BENCH SUPPORT (1)
1 - PCS. 6' ALL STL SEAT (2)
4 - PCS. 1/2" X 2 1/2" FLT. SKT. HD. CAP SCR. (3)
ATTACH BKLESS CAST IRON SUPPORT (1) TO 6' ALL STL SEAT ASSEMBLY (2) USING HARDWARE (3). TIGHTEN TO SNUG FIT.

STEP 2:
UPON COMPLETION OF BENCH ASSEMBLY SQUARE ALL COMPONENTS THEN TIGHTEN ALL HARDWARE.

STEP 3:
MOUNT AND ANCHOR AS SPECIFIED.

---

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<tr>
<th>ITEM</th>
<th>QTY</th>
<th>PART NO</th>
<th>DESCRIPTION</th>
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<tr>
<td>1</td>
<td>2</td>
<td>0-164-02-01</td>
<td>BKLESS CAST IRON BENCH SUPPORT</td>
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<td>2</td>
<td>1</td>
<td>0-164-02-02</td>
<td>6' ALL STL WELDED SEAT SECTION</td>
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<tr>
<td>3</td>
<td>4</td>
<td>1-12-065</td>
<td>1/2&quot; X 2 1/2&quot; FLT SKT HD CAP SCR</td>
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</tbody>
</table>

DuMor, inc.
P.O. Box 142 Mifflintown, PA 17059-0142

BENCH

SCALE: NONE
DRAWN BY: AMH
DATE: 6/4/04
DATE REV.: 

DRAWING NUMBER: 164 SERIES
SHEET 2 OF 2

University of Massachusetts Amherst
Campus Design Standards
STEP 1:
USE 2 - PCS. ALL STL SUPPORT (1)
1 - PC. 6' ALL STL SEAT ASSEMBLY (2)
4 - PCS. 1/2" X 2 1/2" FLT. SKT. HD. CAP SCR. (3)
ATTACH ALL STL SUPPORT (1) TO 6' ALL STL SEAT ASSEMBLY
(2) USING HARDWARE (3). TIGHTEN TO SNUG FIT.

STEP 2:
UPON COMPLETION OF BENCH ASSEMBLY SQUARE ALL
COMPONENTS THEN TIGHTEN ALL HARDWARE.

STEP 3:
MOUNT AND ANCHOR AS SPECIFIED.
5. WASTE AND RECYCLE BIN

Item Description:

One waste and recycle bin style is proposed (Design Guidelines 2.4.11).

Materials:

The bins for use throughout the campus shall be all steel receptacle Model 65-136-32 SH TR for Trash, Model 65-136-32 SH MP for Mixed Paper, and Model 65-136-32 SH BC for Bottles and Cans, with internal steel shield and 10” diameter opening cover, as manufactured by DuMor Inc., Mifflintown, PA or an approved equal.

Height: 36 inches
Diameter: 27-28 inches
Installation: Surface mount per manufacturer’s instructions on concrete pad with rounded outer corners
Fasteners: Stainless steel
Finish: Polyester powder finish in standard black
Capacity: 32 gallon
Receptacle liner: 32 gallon plastic

Notes:

Each bin shall have a solid lettering band, 4-5 inched down from the top of the bin, with the words “TRASH” (white), “BOTTLES & CANS” (red), or “MIXED PAPER” (blue). See model numbers above.

Concrete Pad shall be pitched to ensure automatic closing of bin door.
6. ASH RECEPTACLE

- **Item Description:**
  One ash receptacle style is proposed (Design Guidelines 2.4.12).

- **Materials:**
  Ash receptacles shall be the Smokers’ Pole Model No. R1BK, as manufactured by United Receptacle, Pottsville, PA 1-800-233-0314 or an approved equal.

  - **Construction:** Fire-save steel
  - **Size:** 4” Dia. x 41” H and 14.25” Dia. Base, ADA compliant
  - **Feature:** Two 3.5” W x 1” H dispenser openings with recessed extinguisher screen
  - **Finish:** Polyester powder finish in black, white letters
  - **Installation:** Surface mounted per manufacturer’s instructions on concrete pad with rounded outer corners
  - **Fasteners:** Stainless steel
7. BICYCLE RACK

- **Item Description:**

  Three styles of bike racks are proposed: single loop, ribbon, and rail rack (Design Guidelines 2.4.17).

- **Materials:**

  Bike racks shall be the Loop #125 Series, Model 83-00-S-2, holding 1 bike, the Ribbon #83 Series, Models 125-20 through 125-60 holding 5-13 bikes, and Rail #81 and #82 Series holding 4-18 bikes, as manufactured by DuMor Inc., Mifflintown, PA or an approved equal.

  Installation: Surface mount per manufacturer’s instructions on concrete pad.
  Fasteners: Stainless steel
  Finish: Polyester powder finish in standard black
DuMor, inc.
P.O. Box 142 Mifflintown, PA 17059-0142

MODEL NO. | PEAKS | DIM "A"
----------|-------|--------
130-20    | 2     | 30" L.G.
130-30    | 3     | 50" L.G.
130-40    | 4     | 70" L.G.
130-50    | 5     | 90" L.G.

Finish Options:
- Hot Dipped Galvanized
- Coated W/ Zinc Rich Epoxy Then Finished W/ Polyester Powder Coatings.

Note:
1.) 1/2" x 3 3/4" PLTD. Expansion Anchor Bolts Provided For Option S-2.

Scale: NONE
Title: BIKE RACK
Drawing Number: 130 SERIES
Sheet 1 OF 2
FINISH OPTIONS
- GALV. FINISH
- COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.

NOTE:
1) 1/2" X 3 3/4" PLTD. EXPANSION ANCHOR BOLTS PROVIDED FOR OPTIONS S-2 & S-4.

DuMor, inc.
P.O. Box 142 Kittanning, PA 16201-0142

SCALE : NONE

TITLE : LOOP BIKE RACK

DRAWN BY : CDD
DATE : 3/23/04
REV. : 83 SERIES
DRAWN NUMBER : 1 OF 2
DATE REV. : 2/28/04
REV. BY : JS8
NOTES:
1.) ALL STL MEMBERS GALVANIZED.
    WELDS COATED WITH ZINC-RICH FINISH.
2.) 1/2" X 5 1/2" PLTD. EXPANSION ANCHOR BOLTS PROVIDED.

LENGTH OPTIONS
☐ 5' RACK
☐ 10' RACK

DuMor, inc.
P.O. Box 142 Mifflintown, PA 17059-0142

University of Massachusetts Amherst
Campus Design Standards
NOTES:
1.) ALL STL. MEMBERS GALVANIZED.
WELDS COATED WITH ZINC-RICH FINISH.
2.) 1/2" X 5 1/2" PLTD. EXPANSION ANCHOR BOLTS PROVIDED.

LENGTH OPTIONS:
☐ 5’ RACK
☐ 10’ RACK

DuMor, inc.
P.O. Box 142 Mifflintown, PA 17059-0142

Scale: NONE
Title: DUAL-SIDE ENTRY BIKE RACK

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<tr>
<th>Sheet</th>
<th>Drawing Number</th>
<th>Date Rev.</th>
<th>Rev.</th>
<th>Drawing</th>
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<td>82 SERIES</td>
<td>2/9/02</td>
<td>E</td>
<td>CDC</td>
</tr>
</tbody>
</table>

University of Massachusetts Amherst
Campus Design Standards
8. BICYCLE STORAGE

**Item Description:**

Bicycle storage shall be one style (Design Guidelines 2.4.14).

**Materials:**

The bicycle shelter structure shall be entirely fabricated of steel. The entire fabrication shall have a three part finish - an initial application of a zinc-rich primer, with a Hi-Build Epoxy intermediate coat, and a final surface of Aliphatic urethane all applied per manufacturer’s specifications. Color shall be black as manufactured by the Sherwin Williams Company, Cleveland, OH 44101. Tel: 1-800-321-8194.

The ‘capital’ of the clustered columns shall be considered for the incorporation of student art or donor acknowledgement.

The roof material shall be selected for safety, durability and scratch resistance - either a lexan material or tempered glass. The roof material should be shaded or tinted to help hide any mars to the surface accumulated over time.

The roof shall be pitched to reflect the rooflines of the campus and to be self-cleaning. Lighting shall be provided within the roof structure.

The pavement within the shelter shall be concrete.

The bicycle rack shall be the campus standard (rail style rack shown).

This structure, without bike racks, could be used as transit shelters.
8. TABLE AND CHAIR / PICNIC TABLE

Item Description:

Tables and chairs shall be used on pavement. Picnic tables shall be used on concrete pad (Design Guidelines 2.4.13).

Materials:

Tables and chairs shall be the Steelsite Series, Model IPR-36 and IPR-48. Model IPR-36 shall use seat Model NTRS-24 or Model FTRS-24. Table Model IPR-48 shall use seat Model NTRS-36 or Model FTRS-36. All tables and chairs shall have black powder coat finish and be surface mounted, as manufactured by Victor Stanley, Inc., 1-800-368-2573, or equal.

Picnic table shall be the Steelsite Series, Model FRST-6, black powder coat finish, surface mounted, as manufactured by Victor Stanley Inc., 1-800-368-2573, or equal.
IPR-48

SteelSite® Series Independent Steel Slatted Table

Available Options:
- Powder Coating
- Standard Colors, Custom Colors (excluding the rail range)
- Table Sizes
  - Standard 3' Square Top IPR-36
  - Standard 4' Square Top IPR-48 (as shown)

Notes:
1. Drawings not to scale. Do not scale drawings.
2. All finished metal components are steel (aluminized, fiber, phenolic coated, and high-impact polystyrene).
3. Products are fully cleaned and prepared, painted, and coated while hot to fill crevices and extend life.
4. Parts are then fully coated to matching manufacturers' specifications. The thickness of the coating is approximately 5 mils (125 microns).
5. It is not recommended to use for permanent installations until 5 mils (125 microns).
6. Products are subject to change. Contact manufacturer for details.
7. This product is shipped partially unassembled.

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PRODUCT SPECIFICATIONS

STEELSITE™ SERIES

FTRS-24

All-Steel Backless
Individual Cafe Table Seat
Standard Surface Mount

For your convenience and economy, this seat is shipped partially unassembled.

All fabricated components are steel Electro-galvanized, pickled, phosphate, and electrostatically powder-coated with T.I. polyester powder coatings.

PERSPECTIVE

All specifications are subject to change. Please contact factory for details.

Data:
- It is not recommended to locate anchor bolts until seat is in place.
- All Victor Stanley, Inc. products must be permanently affixed to the ground. Consult your local codes for regulations.

SIDE VIEW

- Finished grade

TOP VIEW

- 18" x 48" solid steel bars
- Clearance for 1/2" anchor bolts

UNDER VIEW

- Fully welded joints Throughout
- 3/4" x 3" solid steel bars
- Copper anchor bolts provided by customer
- Standard leg options include surface mount and permanent mount

(1) Steel slats are formed from sections of 3/4" x 1-1/2" solid steel bars

(3) 1-1/2" length x 3/8" diameter stainless steel hex cap bolts with stainless steel nuts and washers are used to support seat assembly

* All dimensions are in inches *
PRODUCT SPECIFICATIONS

For your convenience and economy this table and bench base are shipped partially assembled. All metal fabricated components are steel phosphatized, galvanized, phosphatized, pretreated, and electrostatically powder coated with T.I.L. polyester powder coatings.

All specifications are subject to change. Please contact factory for details.

Steel slats are formed from sections of 1/4" x 1/2" solid steel bars

Clearance for 1/2" anchor bolts

Integral cross members of 1-5/16" O.D. round steel

2-1/8" O.D. round steel

Ladder bolts provided by others

Integrate cross

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* All dimensions are in inches *
9. FENCING

**Item Description:**

There are four types of fencing (Design Guidelines 2.4.14):

1. Security Fence, high profile
2. Guard Rail
3. Security Fence, low profile
4. Screen Fence

**Materials:**

1. Security Fence at high profile areas (Ornamental Steel) As detailed.
2. Guard Rail (Ornamental Steel) As detailed.
3. Security Fence at low profile areas (Aluminum)
4. Screen Fence (Aluminum)

Aluminum fence shall be Industrial #202 (48" - 96" ht) as manufactured by Jerith Aluminum Fences, Philadelphia, PA, 1-800-344-2242, or equal.

Color: Black.
1. Security Fence at High Profile Areas (Ornamental Steel)

NOTE:
CONTRACTOR SHALL PROVIDE IRON FENCE
SHOP DRAWINGS FOR APPROVAL BY
CAMPUS LANDSCAPE ARCHITECT
2. Guard Rail (Ornamental Steel)
3. Security Fence at Low Profile Areas (Aluminum)

**Installation is Easy!**

Jerith Aluminum Fences are installed by setting a post in concrete and sliding the horizontal rails of a section into pre-punched holes in the post. A second post is then set at the other end of this section. A second section slides into this second post, and so on. The method of attachment is more secure than other means of mechanically fastening the section to the post using brackets or clamps. The fence sections are shipped fully assembled from our factory in 6 foot nominal lengths for easy installation. Smaller sections are simply cut to size on the job site.

Because these fenses are screwed together, they can easily raise to follow the contour of the ground. A standard fence section will drop one foot over its six foot length. If a greater slope is involved, sections can be specially fabricated to traverse a 45 degree angle.

**Dimensions and Specifications**

<table>
<thead>
<tr>
<th>Component Size</th>
<th>Privacy (sq. ft)</th>
<th>Regency (sq. ft)</th>
<th>Industrial Strength</th>
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<tbody>
<tr>
<td>Posts</td>
<td>16 sq. ft x 0.01” thick</td>
<td>17 sq. ft x 0.01” thick</td>
<td>17 sq. ft x 0.01” thick</td>
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<tr>
<td>Rails, Top Rail</td>
<td>1” x 2Ω” thick</td>
<td>1” x 2Ω” thick</td>
<td>1” x 2Ω” thick</td>
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<tr>
<td>Slide Rails</td>
<td>1 1/4” x 0.02” thick</td>
<td>1 1/4” x 0.02” thick</td>
<td>1 1/4” x 0.02” thick</td>
</tr>
<tr>
<td>Standard Posts</td>
<td>2” sq. x 17” thick</td>
<td>3” sq. x 17” thick</td>
<td>3” sq. x 17” thick</td>
</tr>
<tr>
<td>Gate Posts</td>
<td>2” sq. x 17” thick</td>
<td>4” sq. x 17” thick</td>
<td>4” sq. x 17” thick</td>
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<tr>
<td>Spacing Horizontals Posts</td>
<td>35” cm</td>
<td>4”</td>
<td>4”</td>
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<tr>
<td>Post Spacing</td>
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<td>10” cm</td>
<td>10” cm</td>
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<td>Standard Heights Available</td>
<td>48”, 60”, 72”, 84”, 96”</td>
<td>48”, 60”, 72”, 84”, 96”</td>
<td>48”, 60”, 72”, 84”, 96”</td>
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<tr>
<td>Weight - Exported per Section of Fence</td>
<td>500+ lbs</td>
<td>1000+ lbs</td>
<td>150 lbs</td>
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<tr>
<td>Concentrated Side Load Supported</td>
<td>200 lbs</td>
<td>450 lbs</td>
<td>600 lbs</td>
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</tbody>
</table>

Jerith, America’s Fencing Choice; “Aluminum Fences of Distinction”; FencEd.; and*HD-07* are trademarks of Jerith Manufacturing Co., Inc.

* Jerith Manufacturing Co., Inc.  
  14400 McNulty Road, Philadelphia, PA 19154  
  800-346-2242 • 215-676-4068  
  Fax 215 676-5766 • www.jerith.com  
  email sales@jerith.com  
  Your local Jerith Dealer is:
4. Screen Fence (Aluminum)

Screen fence shall be the Jerith Security Fence at low profile areas (aluminum) with solid aluminum panels mounted to the inside face of the fence. Finish of panels shall match fence. Panels shall align with top and bottom fence rails.
10. PLANTERS

**Item Description:**

- Concrete Planters (Design Guidelines 2.4.18)
- Metal Planters (Design Guidelines 2.4.18)

**Materials:**

**Concrete Planters:**
Concrete planter shall be 4 ft round planter as manufactured by Dawn Enterprises, Manchester, CT, http://www.godawn.com, or approved equal. Color is natural.

**Metal Planters:**
Metal planter shall be Steel Planter 122-00SH manufactured by DuMor Inc, Mifflintown, PA, or approved equal. Color shall be black.

**Installation:** Surface mount per manufacturer’s instructions on pavement.

**Fasteners:** Stainless steel
NOTES

1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
NOTE:
1.) SHIPPED FULLY ASSEMBLED
2.) MOUNT AND ANCHOR AS SPECIFIED.
11. SITE LIGHTING

**Item Description:**

- **Walkway (Design Guidelines 2.2.15)**
- **Building-Mounted**
- **Roadway (Design Guidelines 2.2.15)**
- **Parking Lot (Design Guidelines 2.2.15)**

**General:**

For installation and engineering requirements, refer to Design Guidelines 2.10 and the Physical Plant Utilities Standards.

**Walkway lighting:**

Pole shall be as manufactured by Stress-Crete Limited, Burlington, Ontario, Canada, hexagonal section, U-MASS 16, color S11 Eclipse Black-100-BF with one layer of anti-graffiti coating, 12 foot exposed height. Luminaire shall be King Luminaire K118-LPR-III-(wattage code)-HPS-120/208/240/277(MT)-K12-K4 or an approved equal. Luminaire shall include optional GE Decorative Ring and F#1 finial in Standard Gold color.

Pathway lighting (away from roads) shall be approximately 60 ft on center. Sidewalk lighting (roadside) shall be approximately 60-80 ft on center.

The recommended lamp is a 100W high pressure sodium, color corrected lamp.

**Building - mounted lighting:**

Building-mounted lighting shall match the style of individual buildings.

**Roadway lighting:**

Pole shall be as manufactured by Stress-Crete Limited, Burlington, Ontario, Canada, hexagonal section, U-MASS 29. Color is black, 24 foot exposed height. Bracket arms shall be four feet.

**Luminaire at intersections and crosswalks** shall be American Electric Lighting, Roadway Series 325 Cutoff 40S CA 5TI R3 FG BK DF UL SH. **Luminaire at other locations** along roadways shall be American Electric Lighting, Roadway Series 325 Cutoff 25S CA 5TI R2 FG BK DF UL SH.

**Parking lot lighting:**

Pole shall be as manufactured by Stress-Crete Limited, Burlington, Ontario, Canada, hexagonal section, U-MASS 29. Color is black, 29 foot exposed height. Bracket arms shall be two feet. Luminaire shall be American Electric Lighting, Roadway Series 325 Cutoff 40S CA 5TI R3 FG BK DF UL SH.
Walkway Lighting
Hexagonal Class A - Light Duty Poles

Standard Openings and Handholds:
For more detailed information, please reference the General and Technical Information section.

- 2 1/2" x 8" is the standard handhole box located 18" above grade. Both it and the tight-fitting coverplate are available in non-metallic, non-conductive injection molded material or a rugged high density cast zinc.
- Standard coverplate fasteners are 1/4" stainless steel with either Allen (hex) head for the United States or black Robertson #3 (square) head in Canada. Tamperproof and non-standard fasteners are available but must be specified.
- Standard above grade wiring apertures vary with arm selection but are generally 1 1/4" diameter holes or 1 1/2" x 3" openings. Below grade apertures are 2 1/2" x 5" double openings 18" below grade in line with handhole.
- Non-standard sizes can be made available on request; please contact our sales office.
- Galvanized steel or zinc inserts are available in 1/2" increments from 1/4" through 2/4".
- Through holes are nominal 1/4", 3/4", or 1".

Electrical Grounding
The last letter of our pole catalog number "G" specifies that the pole will be supplied complete with a #8 stranded copper ground wire. When properly connected, this will electrically ground the pole. If pole is not to be electrically grounded, simply delete the letter "G" from the catalog number.
Roadway Series 325
Roadway Lighting Luminaires - Cutoff Style Cobrahead with Power Door
200 - 400W HPS, 175 - 400W MV/MH

Features:
Rugged die-cast aluminum housing is powder-coated for durability and corrosion resistance. Die-cast secondary Power Pad door places all electrical components on one easily interchangeable module with quick disconnects to main fixture housing. Optional two-bolt mast arm mount provides easy, secure installation and adjustability for arms from 1-1/4" to 2" (32mm to 51mm) diameter. Standard four-bolt mounting provides extra security in high-vibration applications. Die-cast trigger latch on lens frame enables easy and secure one-hand opening for re-lamping. Star Friendly™ cutoff distribution patterns available. Large surface area "breathing seal" gasket seals the optical chamber to prevent intrusion by insects and environmental contaminants. Heat-resistant gasket material remains effective over the life of the fixture. Wildlife shield is cast into the housing (not a separate piece) with 2B option and is easily adjustable for 1-1/4" to 2" (32mm to 51mm) mast arms. Photocell receptacle is adjustable without tools. Anodized aluminum reflectors provide uniform lighting distribution with either flat or sag clear tempered glass. NEMA wattage label, terminal block, and NEMA photocell receptacle are standard. All electrical components warranted by American Electric Lighting's 6-year guarantee. Suitable for -30°C MH & MV / -40°C HPS. Complies with ANSI: C136.2, C136.10, C136.14, C136.15, C136.17, C136.31

Applications:
Roadways
Residential streets
Storage areas
Parking lots
Campuses
Parks

Effective Projected Area (EPA)
The EPA for the Horizontal Luminaire Series 325 is 1.14 sq. ft.
Approx. Wt. = 35 lbs

For Flat Glass Optics see Note 7 for Socket Location

American Electric Lighting

University of Massachusetts Amherst
Campus Design Standards
K118 Washington Luminaire

A Glorious Past

Of the many Acorn Globes that found their way into the city streets of North America in the early 20th century, the 118 shape was perhaps the most widely used. Available from at least two of the leading streetlight manufacturers of that time, the 118 survived the transition from arc light to incandescent. It satisfied the two essential criteria of the times: it was aesthetically pleasing, and its efficiency was adequate by the governing standards. Because of its pleasant, well-balanced shape, the 118 has come back into favor as an ornamental luminaire, but despite updating with modern HID light sources, the style of globe has never been considered and efficient light until now.

A Brighter Future

With the introduction of the V1.2 Cut-Off, King offers new possibilities in design. For the first time in one luminaire both high efficiency and low glare concerns are addressed.

K118 Features & Engineering Drawings

- K118-L with V1.2 reflector with internal reflector
- K118-E with external reflector

Available Options for K118

- Castings - King Luminaire offers a wide variety of castings to ensure an aesthetically pleasing transition between the pole and luminaire. Available castings can be found in the PDF section of this website.
- Photocell - A photocell button cell and a photocell option are both available for this fixture style. Mounted in the capital of the fixture, they blend in


K118 Washington Luminaire

How To Order

- K118 Catalog Information
- K118 Order Information

Color Choices

The K118 Washington Luminaire is available in a range of Standard and Premium colors. Click here to view color samples.

Retrofit Capabilities

The K118 Washington Globe can be supplied as a retrofit unit with any type HID light source to any existing installation where lower light levels are no longer acceptable. Municipalities can now afford the luxury of ornamental street lights that do not performance to today's stringent photometric standards.

K118-L Washington Features

The most widely used of all acorns, the classic Washington shape takes on a new life with the introduction of the VLL Optic System. Shown here with the K18 capital, the K118L is also available with a number of other capitate capitals. King Luminaire is the only manufacturer to offer the Washington K118 in polycarbonate, impact resistant acrylic and glass, together with a wide choice of finishes.

Features at a glance:
- Conforms to most luminaire requirements
- Offers both HES Type III and Type V with cutoff classification
- Acorn and globes all feature the King Rotable System
- Provides low glare without loss of efficiency
- Available in all HID wattages up to 250w
- Toolless change-out of ballast and lamps
- Achieves excellent spacing and uniformity
- Heavy duty cast aluminum decorative castings

View this and other K118 detail drawings.

Optic Systems for Luminaires

VLL Louver
The VLL is a sophisticated cutoff stacked louver reflector system that provides pedestal but efficient lighting within the confines of glare control and minimal light pollution.

VLL 180
VLL 180 Segmented
VLL Full Cutoff

Indirect & Flat Lens

Internal Refractive: Post Top & Pendant
External Refractive: Post Top

External Refractive: Pendant