

Lumenomics Manual & Motorized Shade or Equal

1. General

VA Palo Alto Healthcare System (VAPAHCS), Palo Alto Division requires replacement of existing recessed roller shades in Building 500 from single shade units to dual shade units. This replacement shall not modify the as-built condition of the building such as ceiling grids, ceiling tiles, gypsum board ceiling, wall, windows and electrical infrastructure. Remote controls shall be provided to control the motorized roller shades in patient rooms.

2. Warranty and Testing Requirements

- a. Manufacturer must offer the warranty for these following products and they are free from defects in materials and workmanship (includes shipping, parts and labor for the repair or replacement of defective item):
 - i. Motorized roller shade hardware: from Five to Ten years
 - ii. Roller shade motors and motor control systems: from Three to Five years.
 - iii. Manual roller shade hardware: from Five to Ten years, except for bead and chain, which is considered a maintenance item.
 - iv. Shade cloth: from Five to Ten years.
 - v. Portable Remote control: One to Five years.
- b. Manufacturer certifies that products meet or exceed applicable ANSI/NEMA/NFPA standards and testing

3. Environmental Features

- a. Product must be designed and constructed of materials that do not present a significant environmental and human health risk.
- b. Materials to be recyclable
- c. Meets GREENGUARDS requirements will be preferred.

4. Dimensions and Features

- a. Manual: Continuous-loop bead-chain, clutch, and cord tensioner and bracket.
 - i. Position if Clutch or Crank Operator: As Indicated on Drawings.
 - ii. Loop bead-chain: Stainless steel, minimum 90 lbs tensile strength, with length for full length of roller shade; provide upper and lower ball stops.
- b. Motorized operator: Must provide factory-assembled motorized shade operation systems designed for lifting shades of type, size, weight, construction, use, and operation frequency indicated. Provide operation systems of size and capacity and with features, characteristics, and accessories suitable for Project conditions and recommended by shade manufacturer, complete with electric motors and factory-prewired motor controls, remote-control stations, remote-control devices, dual switches on the same faceplate that control the shades independently via hardware to the motors, the switches must have an up/stop/down functions, controls and all operating parts shall be fully enclosed, Motorized shade system must integrate with existing building electrical infrastructure without any modification or alteration.
- c. Window shade housing size: Must be 4-3/4" Width by 5" – 7"H and it must not affect the as-built condition such as ceiling tiles, gypsum board ceiling, wall, windows and electrical infrastructure.
- d. Must fabricate housing and shade clothes to fit in existing housing openings in ceiling.
- e. Cloth window shades: rolling type, constructed of shade cloth mounted on rollers. Shade cloth shall have plain sides, and with hem at bottom. Length of shades shall exceed height of window approximately 12 inches measure from head to sill, in addition to material required to make-up hem:
 - i. Provide rollers of diameter recommended by shade manufacturers. Mount shade cloth to rollers to prevent wrinkling or folding, and on line parallel to axis of rollers so that shade will hang plumb.
- f. Must furnish remote control for motorized roller shades.

5. **Surface Materials**

- a. Shade Band Material: Standard PVC-free shade cloth material, anti-microbial treatment, durable, washable and flame retardant.
- b. Shade color must be Translucent SheerWeave Infinity 2 & Blackout SheerWeave 7000 to match existing shades.
- c. Rollers: Dual rollers in a staggered configuration must fit in a 4-3/4"W by 5"-7"H housing. Shall be fabricated from extruded-aluminum tube of diameter and wall thickness required to support and fit internal components of operating system and the weight and width of shade band material without sagging; designed to be easily removable from support brackets; with manufacturer's standard removable spline fitting integral channel in tube for attaching shade material.
- d. Mounting Brackets: Must be zinc-plated steel.
- e. Housing: Box units for recessed installation; must be fabricated from extruded aluminum, with a removable bottom consisting of slot opening of minimum dimension to allow lowering, continuous metal access panel concealing rollers, brackets, and operating hardware and operators within.
- f. Bottom Bar: Must be extruded aluminum. Provide concealed, by pocket of shade material with sealed edges, internal-type bottom bar with concealed weight bar as required for smooth, properly balanced shade operation.
- g. Mounting: Recessed in ceiling pocket mounting permitting easy removal and replacement without damaging roller shade or adjacent surfaces and finishes.

6. **Miscellaneous**

- a. Product and parts shall be guaranteed to be available for a minimum of 5 years after first order entry
- b. Roller shades installation must be leveled, plumbed, and aligned with window, ceiling, wall, adjacent shade units and in accordance to manufacturer's written instructions.
- c. Shade band shall not be closer than 2 inches to the interior face of glass. Allow clearances for window operation hardware.
- d. Connections: Connect motorized operators to building electrical system.
- e. Shade installation methods not specifically described are subject to approval by the COR.
- f. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.
- g. Clean roller shade surfaces after installation, per manufacturer's written instructions.
- h. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and installer, that ensure that roller shades are without damage or deterioration at time of Substantial Completion.
- i. Replace damaged roller shades that cannot be repaired, in a manner approved by VA before time of Substantial Completion.