Commercial Window Treatment Specification
Division 12 – Furnishings
Section 12492 – Motorized Roller Shade

Part 1 – General

1.01 SCOPE
- A. SUPPLIER: Furnish and install Motorized Roller Shades
- B. RELATED WORK SPECIFIED ELSEWHERE:
  1. Section 06100: Rough Carpentry
  2. Section 08520: Aluminum Windows

1.02 REFERENCES
- A. FLAME-RESISTANT MATERIALS SHALL PASS OR EXCEED ONE OR MORE OF THE FOLLOWING TESTS:
- National Fire Protection Association (NFPA) 701 (small scale for horizontal applications)
- Department of Transportation Motor Vehicle Safety Standard 302 Flammability of Interior Materials
- California Administrative Code Title 19
- Federal Standard 191 Method 5903 (used by Port Authority of New York and New Jersey for drapery, curtain, and upholstery material)
- Boston Fire Department Teat BFD IX-1
- New York State Uniform Fire Prevention and Building Code
- UL 325 Listing

1.03 SUBMITTALS
- A. PRODUCT DATA: Manufacturer's descriptive literature shall be submitted indicating materials, finishes, construction and installation instructions and verifying that product meets requirements specified. Manufacturers recommendations for maintenance and cleaning shall be included.
  1. Electric shade motors shall comply with UL standards. Copy of compliance available for submission upon request.
- B. DRAWINGS AND DIAGRAMS: Wiring diagrams of any motors and control components or units, working and assembly drawings shall be supplied as requested.
- C. SAMPLE: Responsible contracting officer or agent shall supply one sample shade of each type specified in this contract for approval. Supplied units shall be furnished complete with all required components, mounting and associated hardware, instructions and warranty.

1.04 QUALITY ASSURANCE:
- A. Supplier: Manufacturer, subsidiary or licensed agent shall be approved to supply the products specified, and to honor any claims against product presented in accordance with warranty.
- B. INSTALLER: Installer or agent shall be qualified to install specified products by prior experience, demonstrated performance and acceptance of requirements of manufacturer, subsidiary, or licensed agent. Installer shall be responsible for an acceptable installation.
- C. UNIFORMITY: Provide Motorized Roller Shades of only one manufacturer for entire project.

1.05 DELIVERY, STORAGE AND HANDLING:
- A. Product shall be delivered to site in manufacturer's original packaging.
- B. Product shall be handled and stored to prevent damage to materials, finishes and operating mechanisms.

1.06 JOB CONDITIONS:
- A. Prior to shade installation, building shall be enclosed.
- B. Interior temperature shall be maintained between 60° F. and 90° F. during and after installation; relative humidity shall not exceed 80%. Wet work shall be complete and dry.

1.07 WARRANTY:
- A. Lifetime Limited Warranty. Fabrics & motors warranted for 5 years. Specific product warranties available from manufacturer or its authorized agent.

PART 2 – Products

2.01 ACCEPTABLE MANUFACTURER
- A. Cigma Blind Contact us by email or call (678) 482 7331 (Monday-Friday 8:30 AM to 4:00 PM EST).
- B. Product substitutions must be approved by architect minimum of 30 days prior to close of bid.

2.02 MOTORIZED ROLLER SHADES
- A. PRODUCT: **Cigma Blind "Motorized Roller Shades"**
- B. MATERIALS:
  1. FABRICS: Inherently anti-static, flame retardant, fade and stain resistant, light filtering, room darkening, & blackout fabrics providing 0% - 25% openness factors. Fabric weights to range between 6.00 oz/sq.yd. – 20.70 oz/sq.yd. containing fiberglass, PVC, polyester, acrylic, vinyl laminates, cotton, & vinyl coatings. Finish selected by architect from manufacturer's available contract colors.
  2. MOTORIZATION SYSTEM: Roller shades to utilize Standard AC motor with appropriate capabilities to operate shades properly. Control components shall be supplied to achieve project's desired operational objectives.

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3. ROLLER: Circular-shaped extruded aluminum tubes with thicker wall & ribs provide additional strength while locking into place the clutch & end plug. 2" outside diameter extruded tube to have a .072" wall thickness (1 ½" & 1 1/8" tubes have .055" wall thickness) providing strength & durability.
4. END PLUG: Heat stabilized fiber reinforced plastic outside sleeve and center shaft provide bearing surfaces on which the roller rides ensuring smooth, wear resistant operation.
5. BOTTOM ROD: Extruded aluminum weight in a Sealed Pocket Hem Bar, or Flat Bottom Bar for fabrics that are not seamable. Bottom rod is for tracking adjustments and provides uniform look..
6. MOUNTING HARDWARE: Manufacturer's standard motorized brackets
7. ADDITIONAL OPTIONS: Fascia, Top & Back Covers, Blockout Systems, Dual Shades, Extruded Pockets, Reverse Roll, Coupled Shades, & Banded Shades.

2.03 FABRICATION

A. Shade measurements shall be accurate to within ± 1/8" or as recommended in writing by manufacturer.

2.04 FABRICS

A. FABRIC selection from the following: A- Screen (14% Open), Avila Twilight (Blackout), Cortina (5% Open), Deco Screen (M- Screen), Edessa Twilight (Blackout), E- Screen (1%, 3%, 5%, 10% Open), Flocke (Blackout), Greenscreen Revive (1%, 5% Open), Moon, M- Screen (3%, 5% Open), Natte (12% Open), R- Screen (5% Open), Satine (5%, 7% Open), Silver Screen (Metalized), S- Screen (4% Open), T- Screen (3% Open), Vela, Vienne (10% Open), Vizela (1% Open), Phifer 1000 (25% Open), Phifer 2000 (5% Open), Phifer 2100 (10% Open), Phifer 2360 (10% Open), Phifer 2390 (5% Open), Phifer 2410 (3% Open), Phifer 2500 (1% Open), Phifer 2701 (1% Open), Phifer 2703 (3% Open), Phifer 2705 (5% Open), Phifer 2710 (10% Open), Phifer 3000 (14% Open), Phifer 4000 (5% Open), Phifer 4100 (10% Open), Phifer 4400 (3% Open), Phifer 4500 (5% Open), Phifer 4550 (5% Open), Phifer 4600 (3% Open), Phifer 4650 (3% Open), Phifer 4700 (5% Open), Phifer 4800 (1% Open), Phifer 5000 (3%,10% Open), Phifer 7000 (Blackout), Phifer 7100 (Blackout), Phifer 7500 (Blackout), Phifer Infinity (3%, 5% Open), Phifer Proformance (3%, 5% Open), Nordic Screen Basketweave (3%, 5%, 10% Open), Nordic Screen Twill (1%, 3% Open), Nordic Screen Plus BW (3%, 5%, 10% Open), Nordic Screen Plus Milan (5% Open), Nordic Screen Plus Twill (1%, 3% Open)

2.05 CONTROLS

A. CONTROL SYSTEM shall be adaptable to conform to all requirements of the owner both on original installation and in the future. Control boards must be adaptable to install in either centralized panels or de-centralized locations.

A. CONTROL BOARDS must be capable of accepting local operational commands, sub group operational commands, whole building operational commands and automated input commands.

B. CONTROL POINTS must be programmable and some having the capablity of displaying active position feedback from the motor, group of motors and the whole building, depending on each control points purpose.

C. CONTROL INPUTS shall vary, depending on the application and purpose. The control system must be able to interface with various integration products that are required within a project. This interface shall be capable of connecting to the shade control system with any of the following commonly used applications: Serial - RS232 or RS 422, IR, RF Dry Contacts or Voltage triggers. Automated control supplied by others may or may not be capable of displaying active position feedback from shading system controls. ALL protocols for this purpose must be freely posted on the internet so that integrators who choose to work with it, may access it to determine their scope of work to achieve the goals of the design team.

D. AUTOMATIC INPUTS shall vary depending on the need and application. Automatic inputs shall be generated from a variety of controls, including: Sun Sensors, Wind Sensors (Exterior only), Timers, Fire Alarm systems and Security systems. Fire and Security command generated must be programmable so that the effect on the shading system can be manipulated based on the needs of the local authority in charge. All Automated inputs must have the capability to be over-ridden by either local controls or group controls. All "Over-ride" commands must also have the ability to be locked in the off position, so that they do not occur.

PART 3 - EXECUTION

3.01 INSPECTION:

A. SUBCONTRACTOR shall be responsible for inspection on site, approval of mounting surfaces, installation conditions and field measurement for this work.
B. OTHER INTERACTING TRADES shall receive drawings of shade systems, dimensions, assembly and installation methods from subcontractor upon request.

3.02 INSTALLATION:

A. INSTALLATION shall comply with manufacturer's specifications, standards and procedures as detailed on contract drawings.
B. ADEQUATE CLEARANCE shall be provided to permit unencumbered operation of shade and hardware.
C. CLEAN finish installation of dirt and finger marks. Leave work area clean and free of debris.

3.03 DEMONSTRATION:

A. Demonstrate operation method and instruct owner's personnel in the proper operation and maintenance of the shading system, motors and controls..

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3.04 SCHEDULE:
A. EXTERIOR WINDOWS:
B. INTERIOR RELIGHTS:

END OF SECTION 12492

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