

## **PART 1 – GENERAL**

### **1.1 GENERAL REQUIREMENTS**

- .1 Comply with requirements of Division 1.

### **1.2 RELATED SECTIONS**

- .1 Section 06 10 00: Rough Carpentry.
- .2 Section 08 14 00: Wood Doors.
- .3 Section 09 21 16: Gypsum Board Assemblies.

### **1.3 REFERENCES**

- .1 The Aluminum Association Inc.
  - .1 AA DAF-45, Designation System for Aluminum Finishes – 9<sup>th</sup> Edition.
- .2 American Society for Testing and Materials International (ASTM).
  - .1 ASTM D1784, Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
- .3 NFPA 701-2015, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

### **1.4 DESIGN REQUIREMENTS**

- .1 Design window shades to following requirements:
  - .1 Be designed in a manner that allows wear susceptible parts to be replaceable.
  - .2 A guarantee of at least 5-years of available replacement parts following discontinue of the products manufacture.
  - .3 Provide instructions for replacing or repairing worn parts, including inventory numbers for parts and procedures for ordering replacement parts.

### **1.5 SUBMITTALS**

- .1 Provide submittals in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's printed product literature and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Shop Drawings:
  - .1 Submit shop drawings in accordance with Section 01 33 00 – Submittal Procedures.
  - .2 Indicate dimensions in relation to window jambs, indicate location of operator and details, top and bottom rail, conditions between adjacent blinds, corner conditions, anchorage details, hardware and accessories, and required clearances.

- .4 Samples:
  - .1 Submit samples in accordance with Section 01 33 00 – Submittal Procedures.
  - .2 Submit duplicate samples of manufacturer's standard colours, patterns and textures of fabric and rail materials for selection by Departmental Representative.
- .5 Closeout Submittals:
  - .1 Provide operation and maintenance data for window shades for incorporation into manual specified in Section 01 78 00 – Closeout Submittals.

## **1.6 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 – Common Product Requirements.
- .2 Deliver, store and handle materials in accordance with manufacturer's written instructions.

## **1.7 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 – Construction Waste Management & Disposal.
- .2 Remove and dispose from site all packaging materials at appropriate recycling facilities.
- .3 Dispose of all corrugated cardboard, polystyrene, plastic and packaging material in appropriate on-site bin for recycling in accordance with site waste management program.

## **1.8 WARRANTY**

- .1 Manufacturer to provide warrantee for 3 years against manufacturing defects. Manufacturer must have qualified technician to carry out warrantee service.

# **PART 2 – PRODUCTS**

## **2.1 ROLLER SHADES**

- .1 Product:
  - .1 Manual, single window, side control manual chain driven, roller shade system.
- .2 General:
  - .1 Manual roller shades to provide smooth operation throughout range of window opening and require no adjustments once in service. Shades to be manufactured using chain-drive clutch mechanism.

- .1 (continued)
  - .2 (continued)
    - .2 Ensure proper placement of shades to ensure minimal light gaps between shades and walls.
    - .4 Anchor securely to window head with suitable anchors.
- .2 Hardware:
  - .1 Bracket system:
    - .1 Use only appropriate shade bracket system.
  - .2 Shade Tube:
    - .1 45 mm outside diameter, 1.25 mm thick walls, complete with fabric fixing slots. Fabric to be attached using mylar strips.
  - .3 Hem Bar:
    - .1 Solid aluminum hem bar with fabric fixing slots. Fabric to be inserted using mylar strip. Front of hem bar to be wrapped with fabric.
  - .4 Drive assembly:
    - .1 Sidecontrol™ system 45 components with mineral filled nylon.
  - .5 Chain: metal ball chain tensioner.
- .3 Screen Fabric:
  - .1 Fabric to be anti-static, flame retardant to NFPA 701, fade and stain resistant, polyester with light filtering weave to openness factor 3%.
  - .2 Colour to be selected from manufacturer's standard colours, patterns and textures by Departmental Representative.
- .4 Fascia
  - .1 Extruded aluminum fascia valence that attaches to brackets. Shade and roller are concealed underneath fascia.

## 2.2 BLACK-OUT SHADES

- .1 Product:
  - .1 Manual, single window, room darkening "black-out" shades shall be side control manual chain driven, roller shade system.
- .2 General:
  - .1 Manual roller shades to provide smooth operation throughout range of window opening and require no adjustments once in service. Shades to be manufactured using chain-drive clutch mechanism.
  - .2 Contractor shall ensure only qualified installers with proven experience in this type of work are retained to install black-out shades.
  - .3 Supplier shall ensure proper placement of shades and side channels to ensure no light gaps.
  - .4 Supplier shall provide suitable anchors.

- .2 Hardware:
  - .1 Bracket system:
    - .1 Use only appropriate shade bracket system.
  - .2 Shade Tube:
    - .1 45 mm outside diameter, 1.25 mm thick walls, complete with fabric fixing slots. Fabric to be attached using mylar strips.
  - .3 Bottom Bar:
    - .1 Solid aluminum bottom bar with fabric fixing slots, and gasket at bottom for light control.
  - .4 Drive assembly:
    - .1 Side control system 45 components with mineral filled nylon.
  - .5 Chain: metal ball chain tensioner.
- .3 Blackout Fabric:
  - .1 Anti-static, coated polyester fabric, flame-resistant to NFPA 701, fade and stain resistant, providing 0% light openness.
  - .2 Colour to be selected from manufacturer's standard colours by Departmental Representative.
- .4 Fascia
  - .1 Extruded aluminum fascia system. Shade and roller to be concealed by fascia.

## **PART 3 – EXECUTION**

### **3.1 MANUFACTURER'S INSTRUCTION**

- .1 Compliance: comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

### **3.2 INSTALLATION**

- .1 Install bracket mounted window shades in accordance with manufacturer's instructions.
- .2 Include centre brackets where necessary to prevent deflection of head rail.
- .3 Secure roller shades with non-corrosive metal fasteners for installation, concealed in final assembly.
- .4 Install roller shades square, plumb, true to line with operable parts adjusted for correct function.
- .5 Adjust to provide for operation without binding.
- .6 For black-out shades: adjust to ensure operation effectively blocks out light and provides room darkening.

### **3.3 PROTECTION AND CLEANING**

- .1 Clean and dust installed shades.
- .2 Protect installed shades from damage for duration of construction work until turn-over of building for occupancy.
- .3 Repair any damage to shade fabric such as small rips or scratched be if deemed repairable in the opinion of the Departmental Representative. Otherwise replace damage shade fabric.

### **3.4 SCHEDULE**

- .1 Black-out Shades:
  - .1 Provide manually operated blackout shades at all resident bedroom exterior windows.
  - .2 Provide black out shade at glazed opening at all resident bedroom doors.
- .2 Solar shades: Provide manually operated solar shades at all other exterior windows.

**END OF SECTION**