PART 1 GENERAL

1.01 SECTION INCLUDES:
The work of this section shall include all labor, equipment, material and services necessary to furnish and install miniblinds as indicated or specified.

1.02 QUALITY ASSURANCE
A. Specifications are based upon Riviera Blinds as manufactured by Levelor Lorentzen, Hoboken, NJ. Flexalum Blinds as manufactured by Win-Glo, Phoenix, AZ are also acceptable for bidding.
B. A warranty shall be provided that guarantees all slats against warp, twist, bow, brittleness, shrinkage, surface change and color change. This guarantee shall be non-prorated and cover all slats and associated parts for a period of 3 years from the date of installation. Warranty expiration date shall be shown on individual blinds in location adjacent to blind manufacturer's/installer's identification plate.

1.03 SUBMITTALS
A. Submit Product Data Sheets, shop drawings including location/layout plan, directions for installation and anchorage of blinds to other materials, and cleaning protection, operation and maintenance instructions.
B. Submit samples of each type, color, finish and pattern for blind components as indicated by the contract documents.

1.04 DELIVERY, STORAGE AND HANDLING
Blinds shall be delivered to site after building is secure, all finishes complete, and windows are ready for installation of coverings.

PART 2 PRODUCTS

2.01 FABRICATION
A. General
1. The blind shall have either nominal 1/2 inch micromini or 1 inch wide horizontal slats as indicated by contract documents, and shall be supported by braided ladders.
2. Operating hardware shall be machine clinched to an enclosed metal head to assure perfect alignment.
3. It shall be possible to tilt the slats to any horizontal angle by means of a transparent wand.
4. It shall be possible to raise and lower the slats to any height by means of lift cords.
5. All metal components shall be treated for corrosion resistance.
6. All visible components of the blind shall be selected from manufacturer's standard colors unless otherwise noted on the schedule.
7. All dry pigments used in components shall be for interior and exterior use and shall meet Federal lead content standards.
B. Head Channel
1. The head channel shall be .025" steel.
2. It shall have a plastic type coating cured at high temperature and shall be formed after coating.
3. It shall be "U" shaped, 1" high by 1-9/16" wide with flanged edges at the top.
4. The blind shall be free of sharp edges, burrs or other defects which might be harmful to its operation or to persons or materials in contact with them.
5. All workmanship, details and procedures shall comply with current manufacturer's specifications and standards.
C. Wand Tilter
1. The tilter shall be of enclosed construction. It's moving parts and mechanical drive shall be made of compatible materials for smooth operation. It shall tilt the slats to any desired angle and hold them at that angle so that any vibration or movement of ladders and slats will not drive and change the angle of slats. Location of wand shall be coordinated with the Architect.
2. The tilter shall be .042" steel or nylon.
3. It shall have a wand which by turning shall tilt all the slats to the desired angle.
4. An automatic disengagement of worm and gear shall eliminate over-drive to prevent strain or damage to wand, worm, gear, ladder or top slat.
5. Transparent wand shall have a hexagonal cross section 5/16" across slats for comfortable grip and shall hang vertically by its own weight.
6. It shall be of sufficient length and swivel for easy operation from any convenient position.
7. It shall be detachable by raising the locking sleeve.

D. Cord Lock
1. The cord lock shall be .042" thick steel securely attached to head. The cord for the cordlock shall be six inches long when blind is in the lowered position, and shall terminate with a one inch diameter metal ring hook.
2. It shall be crushproof type, with proper sensitivity to lock slats at desired height upon release of cords or by swinging cords toward jamb while lowering slats.
3. The revolving serrated cam shall gently snub all the cords to hold the raised slats level at the desired height, increasing its grip for heavier loads.

E. Drums and Cradles
1. All blinds shall have a cradle and drum for each ladder.
2. The cradle shall be .042" steel and holes with rolled edges to guide the ladder and cord through bottom of head. The cradle shall center the drum over the ladder openings. It shall provide bearing support for the tilt rod thus preventing weight of blind from being transferred to tilter.
3. The drum shall be .031" steel and shall have two holes with rolled edges to anchor the barbs of each of the two ladder ends.

F. Tilt Rod
1. The tilt rod shall be shaped to fit in only one possible correct position in the drum and gear openings and shall provide instant tilting responses.
2. For all blinds over 83" wide, also for blinds over 60" wide and over 50 square feet, the tilt rod shall be rolled steel. Average cross section dimension shall be 1/4" to limit torsional deflection to 6 degrees at 30" with an applied torque of one foot-pound.
3. For other blind sizes - the tilt rod shall be "U" shaped of .062" steel.

G. End Brace
1. To add rigidity, an end brace of .042" thick steel shall be fastened to each end of the head.
2. To assure a secure installation, eliminate lateral movement, and center blind in window, each brace shall have an adjustable tab.

H. Installation Brackets
1. Installation Brackets with riveted locking cover shall both be at least .047" thick steel and shall have baked finish in color to match head channel. A pair of these brackets shall support end of the head channel securely. The brackets shall permit easy removal of head.
2. The bracket shall be designed to safely support the load of the blind plus the forces applied to operate the blind. The size and distribution of screw holes shall be determined by these criteria.

I. Intermediate Brackets
1. Intermediate Brackets shall be installed on blinds over 60" wide or 45 square feet in area. They shall be spaced at maximum of 60" apart.
2. Brackets shall be "U" shaped, .050 +/- .004" thick steel.
3. The head shall be locked to the central bracket by either of the following methods: drive a self-tapping #6 x 1/4" Type 1 screw through bottom of bracket and head channel; or use latch type bracket.

J. Braided Ladders (slat supports)
1. These shall be braided of polyester yarn and stabilized. The vertical component shall have maximum flexibility with minimum stretch for tensile strength of 50 pounds.
2. The horizontal component or rungs shall consist of not less than 4 cables integrated with the vertical components.
3. Braided ladder shall support slats parallel and straight and assure proper tilt control and closure of slats.
4. A metal barb shall be securely and accurately machine clinched at all 4 ends of each ladder to lock in holes of drum and bottom rail. Barbed ladders shall be detachable.
5. Distance between end ladder and end of slats shall not exceed 7". Distance between braided ladder shall not exceed 23" for blinds under 80-1/8" long and 22" for blinds over 80".
6. Ladders shall be of sufficient length for bottom of the blind to land within 5/8" of sill or of specified overlap where there is no sill.
7. Ladders shall be dyed to match or blend into color of blinds.

K. Aluminum Slat
1. Slats shall be virgin aluminum alloyed for maximum strength, flexibility, and resistance to internal and external corrosion.
2. The slats shall be 1/2 inch wide for micromini blinds and 1 inch wide for mini blinds, plus .003" or minus .000".
3. Densely pigmented colors shall have a catalytic undercoat strongly bonded to the aluminum and plastic type finish coat applied under heavy pressure and cured at high temperature.
4. Transparent type finishes shall be applied under heavy pressure and cured at high temperature without an undercoat to permit the metallic surface to be reflective. They shall be formulated to provide superior adhesion, protection, and quality.
5. They shall have an elliptical crown of proper contour formed after coating and curing. The radius of each corner shall be 5/32" and tangent to the edges of the slat.
6. The end clearance of each slat shall not exceed 1/4" from each side of the window opening for jamb installation. For face installation, slats shall overlap jamb by 1-1/2" maximum at each end where possible.
7. Slat thickness and ladder support distances shall be such that there is no visible up or down (sag) bow even after continued usage in any indoor environment.

L. Bottom Rail
1. The bottom rail shall be .031" steel.
2. It shall have a plastic type coating cured at high temperature and shall be formed after coating.
3. It shall be shaped to impart stiffness, accommodate its accessories, and flexible to proportionately distribute load to each cord branch.
4. It shall be provided with pierced holes for the braided ladders and cord. Molded plastic caps shall lock onto rail to cover cord and ladder holes. Caps shall be shaped to offer maximum protection to braided ladders and window sill.
5. Molded plastic end caps with bottom flange shall protect jamb and sill.

M. Lift Cord
1. Cord shall be braided of high strength synthetic fibers of a diameter commensurate to the size of the rout hole in the slat. Location of cord shall be coordinated with Designated Representative.
2. It shall have a rayon cord or approved equal.
3. Cord shall be flexible with minimum stretch characteristics and maximum abrasion resistance.
4. Cord shall have a minimum breaking strength of 175 pounds.
5. Cord shall be of sufficient length and equalized to properly control the raising and lowering of the blind.
6. Ring shall equalize lift cords and be attached not less than 6 inches from the head.
7. Cord ends shall be securely anchored to the bottom rail at a maximum spacing of 46" between cords.
8. It shall be possible to detach and attach cords.
9. Stringing arrangement shall comply with standards set for the size and weight of the blind.
10. Cords shall be dyed to manufacturer's color standard.

PART 3 EXECUTION

3.01 INSTALLATION

A. Installation
   1. Miniblinds shall fit openings in accordance with manufacturer's standards. Exact location of blinds, within window frame or outside window frame, shall be coordinated with the Architect.
   2. Head channel shall be secured with brackets supported with plated self-tapping steel screws.

B. Protection
   Put miniblinds into full open retracted position and wrap with protective paper immediately after Installation.

END SECTION