SECTION 10 56 00

STORAGE SHELVING AND SUPPORT BRACKETS

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\*\* NOTE TO SPECIFIER \*\* Rakks Architectural Shelving and Hardware; Counter Supports and Shelving Systems.  
This section is based on the products of Rakks Architectural Shelving and Hardware, which is located at:254 Turnpike Rd.Westborough, MA 01581Toll Free Tel: 800-826-6006Tel: 781-455-8700Fax: 781-455-8702Email:  [sales@rakks.com](mailto:sales@rakks.com?subject=RE:%20Spec%20Question%20(10670rak):%20)  
Web: <https://rakks.com>   
  
 [ [Click Here](https://arcat.com/company/rakks-architectural-shelving-and-hardware-35076) ] for additional information.  
  
Founded in 1971, Rakks Architectural Shelving and Hardware has been a leader in the design, development and production of innovative architectural shelving systems. For over three decades. Our shelving has been the choice of architects, interior designers, store planners and design savvy consumers. Our ever-expanding product line provides attractive, flexible and affordable shelving and display solutions. In addition to shelving, we offer a selection of architectural specialty products that include brackets for the installation of counters, sills, vanities, benches and wood railings.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Storage shelving.
    2. Wall mounted standards.
    3. Pole supports.
    4. Shelf support brackets.
    5. Counter and sill support brackets.
    6. Extruded aluminum shelves.
    7. Fixed floating extruded aluminum shelves.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 50 00 - Metal Fabrications.
    2. Section 06 10 00 - Rough Carpentry.
    3. Section 06 20 00 - Finish Carpentry.
    4. Section 06 40 00 - Architectural Woodwork.
    5. Section 06 41 13 - Wood-Veneer-Faced Architectural Cabinets.
    6. Section 09 29 00 - Gypsum Board.
    7. Section 11 21 13 - Cash Registers and Checking Equipment.
    8. Section 11 59 00 - Exhibit Equipment.
    9. Section 12 35 50.56 - Built-In Study Carrels.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. AAMA 605.2 - Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels.
    2. AAMA 606.1 - Voluntary Guide Specification and Inspection Methods for Integral Color Anodic Finishes for Architectural Aluminum.
    3. AAMA 607.1 - Voluntary Guide Specification and Inspection Methods for Clear Anodic Finishes for Architectural Aluminum.
    4. ASTM B 221 - Aluminum-Alloy Extruded Bar, Rod, Wire, Shape, and Tube.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00.
     2. Product Data: Manufacturer's data sheets on each product to be used, including installation instructions.
     3. Shop Drawings: Submit plan, section, elevation and perspective drawings as necessary to properly depict the design, fabrication and installation of each product specified.
     4. Verification Samples: For each finish product specified, two samples representing actual product, color, and patterns.
  2. QUALITY ASSURANCE
     1. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten years experience in designing and fabricating unique aluminum storage systems, support brackets and other architectural specialties.
     2. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five years demonstrated experience in installing products of the same type and scope as specified.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
       1. Finish areas designated by Architect.
       2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
       3. Refinish mock-up area as required to produce acceptable work.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Store products in manufacturer's unopened packaging until ready for installation.
     2. Store and dispose of hazardous materials, and materials contaminated by hazardous materials, in accordance with requirements of local authorities having jurisdiction.
  2. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
  3. WARRANTY
     1. At project closeout, provide to Owner or Owners Representative an executed copy of the manufacturer's standard limited warranty against manufacturing defect, outlining its terms, conditions, and exclusions from coverage.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Rakks Architectural Shelving and Hardware, which is located at:254 Turnpike Rd.Westborough, MA 01581Toll Free Tel: 800-826-6006Tel: 781-455-8700Fax: 781-455-8702Email: [request info (sales@rakks.com)](https://arcat.com/rfi?action=email&company=Rakks%252BArchitectural%252BShelving%252Band%252BHardware&message=RE%253A%2520Spec%2520Question%2520(10670rak)%253A%2520&coid=35076&spec=10670rak&rep=&fax=781-455-8702);Web: <https://rakks.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.
  1. SCOPE / APPLICATION

\*\* NOTE TO SPECIFIER \*\* Retain only applications that apply to this project and delete others.

* + 1. Provide complete shelving system as detailed on Drawings consisting of modular components that can be field assembled using simple hand tools. System shall provide:
       1. Fully compatible components allowing integration into total system.
       2. Total shelf adjustability without slots or visible hardware.
       3. Capability to expand.
       4. Capability for disassembly, relocation, and reconfiguration.
    2. Provide wall mounted, heavy duty, welded aluminum brackets for supporting the following surfaces:

\*\* NOTE TO SPECIFIER \*\* Retain only surfaces to be supported by brackets specified in this section. Insert other surfaces where not listed.

* + - 1. Counter tops.
      2. Work surfaces.
      3. Vanities.
      4. Benches.
      5. Shelves.
      6. Displays.
      7. Window sills.
      8. \_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete the entire next article if wall standards are not required.

* 1. WALL MOUNTED STANDARDS

\*\* NOTE TO SPECIFIER \*\* Rakks Wall Standards can either be surface mounted or recessed.

* + 1. Type: Channel type, extruded aluminum standard mounted on walls and designed to hold shelf support brackets inserted into channel ends or access slots and slid to desired position; Rakks Wall Standards as manufactured by Rakks Architectural Shelving and Hardware.

\*\* NOTE TO SPECIFIER \*\* Select mounting method. Delete one of the next two paragraphs.

* + - 1. Mounting: Surface.
      2. Mounting: Recessed.

\*\* NOTE TO SPECIFIER \*\* Select length requirements Rakks Wall Standards available in lengths up to 12 feet (3.7 m). Delete one of the next two paragraphs and insert length where required.

* + - 1. Length: As Noted on Contract Documents and Schedules.
      2. Length: \_\_\_\_\_ inches (\_\_\_\_ mm).
    1. Profiles:

\*\* NOTE TO SPECIFIER \*\* Retain required wall standard models from the following six paragraphs.

* + - 1. Basic channel: Model - SC-Standard - 0.700 inch wide by 0.535 inch deep (18 mm x 14 mm) channel with projecting lips to retain shelf brackets, and designed for either surface or recessed mounting.
      2. Decorative profile: Model - SM-Standard - Surface mounted, M-shaped channel, 1.750 inches wide by 0.535 inch deep (44 mm x 18 mm), with flared sides and projecting lips to retain shelf brackets.
      3. Recessed profile: Model - SE-Standard - 1 inch wide by 0.625 inch deep (25 mm x 16 mm) channel with projecting lips to retain shelf support brackets and flanges to overlap 5/8 inch (16 mm) thick gypsum board when recessed mounted in gypsum board partition.
      4. Recessed glass application: Model - SG-Standard - 1.250 inches wide by 0.535 inch deep (32 mm x 18 mm) channel with projecting lips to retain shelf support bracket and flared sides designed for recessed application between two 1/4 inch (6 mm) thick glass, mirror, or wood panels.
      5. Double channel: Model - SD-Standard - Surface mounted, 1.75 inch wide by 0.535 inch deep (44 mm x 18 mm) extrusion with two channels with projecting lips to retain adjacent shelf support brackets at either continuous or staggered shelf configurations.

\*\* NOTE TO SPECIFIER \*\* Rakks SQ2-Standard is designed for load capacities 25 percent greater than capacities of other standards. Rakks BR and TB Brackets are to be used with this standard.

* + - 1. Heavy duty decorative profile: Model - SQ2-Standard - Surface mounted, heavy duty, channel with quarter round flanges, 1.625 inches wide by 0.625 inch deep (41 mm x 16 mm) and designed to retain shelf brackets and support heavy loads.

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete four of the next five paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Clear Anodized.
      3. Finish: Black Anodized.
      4. Finish: White Powder-coat.
      5. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* When Rakks Wall Standards are recessed or channel ends are not accessible, access slots can be provided such that shelf support brackets can be inserted in channels from the front face. Slots are typically located 2 inches (51 mm) from bottom of standard.

* + 1. Access slots: Provide standards with slots in channels for insertion and removal of shelf support brackets. Size slots for type of bracket being provided.

\*\* NOTE TO SPECIFIER \*\* Delete the entire next article if pole supports are not required.

* 1. POLE SUPPORTS

\*\* NOTE TO SPECIFIER \*\* Rakks Pole Supports are designed with channels to accept shelf support brackets at any location on the pole. Poles can also be used to help support cabinets, hinged doors, decorative and divider panels, light fixtures, and other components. Contact Rakks Architectural Shelving and Hardware for assistance in special applications of support poles.

* + 1. Type: Extruded aluminum poles with channels for supporting shelf support brackets, cabinets, doors, panels and other storage systems listed in this section.
    2. Mounting Method:

\*\* NOTE TO SPECIFIER \*\* There are seven methods for using and anchoring Rakks Support Poles to accommodate different loading configurations and applications. Specific pole profiles are required for each mounting method. Not all poles can be used for all mounting methods. Appropriate poles for each mounting method are as follows:  
 Type A - Compression spring: Pole No. PL.  
 Type B - Threaded compression mounts: Pole Nos. PC2, PC4, and PD6.  
 Type C - Back wall supporting ties: Pole Nos. PL, PC2, PC4, PS4, and PD6.  
 Type D - Integrated casework supports: Pole Nos. PS4 and PD6.  
 Type E - Floor-to-ceiling anchor brackets: Pole Nos. PL, PC2, PC4, PS4, and PD6.  
 Type F - L-bracket tied to supporting wall with mitered tie-pole: Pole PC2.  
 Type G - Mitered tie-pole: Pole Nos. PL, PC2, PC4, PS4, and PD6.  
\*\* NOTE TO SPECIFIER \*\* Retain required mounting methods from the following paragraphs and coordinate with pole profiles being specified in Paragraph 2.4.C.

* + - 1. Compression Spring: Type A - Floor to ceiling poles with compression spring, sleeve, and top cap for supporting rear facing shelving and other loads braced against wall.
      2. Threaded Compression Mounts: Type B - Floor to ceiling poles with threaded, non-skid, non-marking mounts at top and bottom that can be tightened to provide compression installation. Mounts contain two holes for additional fastening into floor or ceilings and to accommodate unbalanced loading.
      3. Back wall Supporting Ties: Type C - Poles with bracket to connect top of pole to supporting wall in lieu of ceiling support.

\*\* NOTE TO SPECIFIER \*\* Select bracket type. Delete one of the next two paragraphs.

* + - * 1. Bracket Type: BT tie bracket.
        2. Bracket Type: Non-mitered tie-pole and anchor brackets.
      1. Casework Supports: Type D - Pole integrated into casework and extending above counter top 48 inches (1219 mm) maximum.
      2. Anchor Brackets: Type E - L-shaped brackets with pre-drilled holes to anchor pole to floor and ceiling. Brackets slide into pole channels and are secured with screws.
      3. L-Bracket with Mitered Tie-Pole: Type F - Two-piece, mitered bracket assembly with pre-drilled holes to anchor pole to wall and to connect adjacent poles. Brackets slide into pole channels and are secured to wall with screws.
      4. Mitered Tie-Pole Bracket: Type G - Mitered tie-pole brackets to anchor pole to wall. Brackets slide into pole channels and are secured to wall with screws.

\*\* NOTE TO SPECIFIER \*\* Rakks Architectural Shelving and Hardware manufacturers five extruded aluminum support poles that can be installed with the mounting methods listed above.

* + 1. Poles: Extruded aluminum pole supports shall contain two or more channels with projecting lips designed to hold shelf support brackets inserted into channel ends or access slots and slid into desired position.
       1. Wall Storage Pole Used In Conjunction With Supporting Wall: Model - PL: 1 inch wide by 1 1/2 inches deep (25 mm x 38 mm) with front and back channels to accept shelf brackets and side channels that can accept screws for mounting cabinets.
       2. Threaded Compression, Square Support Pole: Model - PC4: 1-1/2 inch (38 mm) square pole with channels on four sides to accept shelf support brackets or panels and designed to be installed with or without supporting wall.
       3. Threaded Compression, Square Support Pole: Model - PC2:1-1/2 inch (38 mm) square pole with channels front and back to accept shelf support brackets and threaded side channels that can accept screws for mounting L-brackets and cabinets to be installed with or without supporting wall.
       4. Single, Rectangular Support Pole: Model - PS4: 1 inch by 2 inch (25mm x 51 mm) rectangular pole with channels on four sides to receive shelf support brackets or panels and designed to be installed through counter top or floor to ceiling applications.
       5. Double Channel Support Pole: Model - PD6: 2 inch (51 mm) square pole with double channels on front and back to receive adjacent shelf support brackets at either continuous or staggered shelf configurations and two side channels for shelf support brackets or panels.

\*\* NOTE TO SPECIFIER \*\* Rakks Pole Supports can be provided in various lengths. Model No. PL can be provided up to 11 feet (3.4 m) using a 24 inch (610 mm) extension. Model PD6 can be provided up to 16 feet (4.9 m). All other pole models are provided in lengths up to 12 feet (3.7 m) long. Delete one of the next two paragraphs and insert length where required.

* + - 1. Length: As noted on Contract Documents and Schedules.
      2. Length: \_\_\_\_\_ inches (\_\_\_\_ mm).

\*\* NOTE TO SPECIFIER \*\* Select finish. Only PC2, PC4 and PL poles are available in White powder-coat. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete four of the next five paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Clear Anodized.
      3. Finish: Black Anodized.
      4. Finish: White Powder-coat.
      5. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Spline connectors can be used to connect two pole sections where floor to ceiling heights exceed standard pole lengths. Two splines are required for each connection. Include the following paragraph if spline connectors are required.

* + 1. Spline Connectors: Provide 4 inch (102 mm) long aluminum splines to insert into channels of connecting poles. Secure splines with set screws.

\*\* NOTE TO SPECIFIER \*\* Rakks Pole Supports are typically provided with slots for inserting shelf support brackets in pole channels on the front face. Delete if not required.

* + 1. Access Slots: Provide poles with slots in channels for insertion and removal of shelf support brackets. Size slots for type of bracket being provided.

\*\* NOTE TO SPECIFIER \*\* Rakks Threaded Inserts may be used to facilitate the installation of cabinets and other components with screws. Delete if not required.

* + 1. Threaded Inserts: Where indicated on Drawings or required for screw attachment of cabinets and other components, provide threaded inserts designed to accept 1/4 - #20 screws. Inserts shall slide into pole channel and be secured with set screw.

\*\* NOTE TO SPECIFIER \*\* Snap-in channel covers can be provided in two finishes. Include the following paragraph if optional covers are required.

* + 1. Channel Covers: Model No. CC-096 PVC, snap-in channel covers. 96 inch (2438 mm) lengths.

\*\* NOTE TO SPECIFIER \*\* Select finish. Delete one of the next two paragraphs.

* + - 1. Finish: Black.
      2. Finish: Translucent.

\*\* NOTE TO SPECIFIER \*\* Door hinges can be attached to poles and support 1/4 inch (6 mm) thick glass or 3/4 inch (19 mm) thick wood doors up to 18 inches (457 mm) wide. Delete if not required.

* + 1. Door Hinges: Where indicated on Drawings or scheduled, provide polished aluminum door hinges for attachment to support poles.

\*\* NOTE TO SPECIFIER \*\* Items such as light fixtures, power strips, and panels can be anchored to support poles with channel nut plates. Delete if not required.

* + 1. Channel Nut Plates: Where indicated on Drawings or scheduled, provide channel nut plates to install on poles and provide means for attachment of light fixtures, power strips, panels, and other accessory items.
       1. Plates installed and removed from pole front: Model - NP-0832: 1/4 inch by 1-1/4 inch (6mm x 32 mm) plate.
       2. Extra secure plates installed into end of pole or through access slot: Model - NP-0420: 1/2 inch by 1 inch (13mm x 25 mm) plate.

\*\* NOTE TO SPECIFIER \*\* PS4 and PD6 pole supports can be installed through counter tops using circular grommets with square and rectangular holes to fit poles. Retain only required sub-paragraphs from the included text or Delete the entire paragraph if not required.

* + 1. Grommets: Circular delrin grommets to epoxy into counter tops to receive casework mounted pole supports:
       1. For single rectangular support poles: 2-1/2 inch (64 mm) diameter grommets.
       2. For double channel square poles: 3-1/2 inch (89 mm) diameter grommets.

\*\* NOTE TO SPECIFIER \*\* For corner conditions, a screw applied channel can be installed on Models No. PL and PC2 poles. Retain the following paragraph if corner adapters are required.

* + 1. Pole Corner Adapters: Where scheduled or indicated on Drawings, provide screw applied channel extrusion installed in side recess of support pole to accommodate corner condition.

\*\* NOTE TO SPECIFIER \*\* Delete the next paragraph if Rakks Lamp Brackets are not required.

* + 1. Lamp Brackets: Where scheduled or indicated on Drawings, provide lamp bracket with hole to receive 1/2 inch (13 mm) diameter shaft of drafting lamp. Bracket shall slide in pole channel and be secured with set screw.

\*\* NOTE TO SPECIFIER \*\* Delete the entire next article if shelf support brackets are not required.

* 1. SHELF SUPPORT BRACKETS

\*\* NOTE TO SPECIFIER \*\* Rakks Shelf Support Brackets are provided in three styles and nominal lengths of 4, 6, 8, 10, 12, 14, 16, 18, and 24 inches. Typically the shelf will extend beyond the end of the support approximately 3/4 inch (19 mm). Rakks Style Brackets are provided in 1-1/4 and 2 inch (32 and 51 mm) depths to accommodate different bracket load capacities up to 100 pounds (45 kg). Where multiple brackets are required, copy the following paragraph and insert the required product information.

* + 1. Rectangular Bracket: Fabricated from 1/4 inch (4 mm) thick extruded aluminum bar with steel pin to retain and hold bracket in support channel.

\*\* NOTE TO SPECIFIER \*\* Insert required information from the manufacturer's current product offerings.

* + - 1. Model No. \_\_\_\_\_.
      2. Shelf Width: \_\_\_\_\_ inches (\_\_\_mm).
      3. Load Capacity: \_\_\_\_\_ pounds (\_\_\_\_\_kg).

\*\* NOTE TO SPECIFIER \*\* Select bracket depth. Delete one of the next two paragraphs.

* + - 1. Depth: 1-1/4 inches (32mm).
      2. Depth: 2 inches (51 mm).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete four of the next five paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Clear Anodized.
      3. Finish: Black Anodized.
      4. Finish: White Powder-coat.
      5. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Notched brackets and hanger bars are typically used for clothing merchandising. Retain the following paragraphs if notched brackets with hanger bars are required.

* + 1. Notched Rectangular Bracket: 1/4 inch (6 mm) thick rectangular aluminum bracket 2 inches (51 mm) deep with notch to receive hanger bar.

\*\* NOTE TO SPECIFIER \*\* Select hanger bar type. Delete one of the next two paragraphs.

* + - 1. Hanger Bar: 1/4 inch (6 mm) thick by 1-1/4 inch (32 mm) high flat rectangular aluminum bar to be supported by pair of notched brackets.
      2. Hanger Bar: Extra stiff, J-shaped hanger bar 3/4 inch (19 mm) thick by 1-1/2 inches (38 mm) high to be supported by pair of notched brackets.

\*\* NOTE TO SPECIFIER \*\* Any Rakks Style Bracket can be modified to mount at a specified angle of slant. Typical use is to support a sloped shelf for literature and magazine display. Retain the following paragraph if slanted Rakks Style Brackets are required.

* + 1. Slanted Rectangular Bracket: Aluminum bracket cut to mount at a fixed angle. Bracket equipped with retaining pin at bottom to hold sloped shelf in place.

\*\* NOTE TO SPECIFIER \*\* Insert required information from the manufacturer's current product offerings.

* + - 1. Slant Angle: \_\_\_\_\_\_\_ degrees from vertical.
      2. Shelf Depth: \_\_\_\_\_ inches (\_\_\_mm).
      3. Load Capacity: \_\_\_\_\_ pounds (\_\_\_\_\_kg).

\*\* NOTE TO SPECIFIER \*\* Select bracket depth. Delete one of the next two paragraphs.

* + - 1. Depth: 1-1/4 inches (32mm).
      2. Depth: 2 inches (51 mm).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete four of the next five paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Clear Anodized.
      3. Finish: Black Anodized.
      4. Finish: White Powder-coat.
      5. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Any Rakks Style Bracket can be modified to mount at a specified angle and equipped with pins at a specified spacing for hanging clothing or other merchandising items. Retain the following paragraph to specify Rakks Waterfall Bracket.

* + 1. Waterfall Rectangular Bracket: Aluminum bracket with steel pins, cut to mount at a fixed angle.

\*\* NOTE TO SPECIFIER \*\* Insert required information from the manufacturer's current product offerings.

* + - 1. Slant Angle: \_\_\_\_\_\_\_ degrees from vertical.
      2. Pin Spacing: \_\_\_\_\_\_ inches (\_\_\_mm).
      3. umber of pins: \_\_\_\_\_.
      4. Shelf Depth: \_\_\_\_\_ inches (\_\_\_mm).
      5. Load Capacity: \_\_\_\_\_ pounds (\_\_\_\_\_kg).

\*\* NOTE TO SPECIFIER \*\* Select bracket depth. Delete one of the next two paragraphs.

* + - 1. Depth: 1-1/4 inches (32mm).
      2. Depth: 2 inches (51 mm).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete four of the next five paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Clear Anodized.
      3. Finish: Black Anodized.
      4. Finish: White Powder-coat.
      5. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Rakks T-Style Laboratory Bracket is a tapered, heavy duty aluminum bracket that can be used in conjunction with other Rakks Style Brackets. Retain the following paragraph to specify Rakks T-Style Laboratory Bracket.

* + 1. Heavy Duty Laboratory Bracket: Model - BR-012R: Tapered aluminum bracket with 1 inch (25 mm) wide, PVC extrusion pinned to top of bracket and pre-drilled to provided means of screw attaching shelves to brackets; Rakks T-Style Laboratory Bracket No. as manufactured by Rakks Architectural Shelving and Hardware.
       1. Size: 11 inches (279 mm) long with 2-1/8 inch (54 mm) maximum depth.
       2. Load capacity: 100 pounds 45 kg.

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete four of the next five paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Clear Anodized.
      3. Finish: Black Anodized.
      4. Finish: White Powder-coat.
      5. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* In addition to Rakks Laboratory Brackets, other Rakks Style Brackets can be provided with PVC extrusion for screw attachment of shelves to brackets. Retain the following paragraph if this option is required.

* + 1. T-Style Brackets With Shelf Attachment Plates: 1 inch (25 mm) wide PVC extrusions pinned to top of bracket and pre-drilled to provided means of screw attaching shelves to brackets.

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete four of the next five paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Clear Anodized.
      3. Finish: Black Anodized.
      4. Finish: White Powder-coat.
      5. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Select PVC flange finish. Delete two of the next three paragraphs.

* + - 1. PVC Flange Finish: Translucent.
      2. PVC Flange Finish: White.
      3. PVC Flange Finish: Black.

\*\* NOTE TO SPECIFIER \*\* In addition to Rakks Laboratory Brackets, other Rakks Style Brackets can be provided with PVC extrusion for screw attachment of shelves to brackets. Retain the following paragraph if this option is required.

* + 1. "T" Style Brackets: Two-piece brackets for supporting glass or wood shelving up to 12 inches (305mm) deep.

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete three of the next four paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Black Anodized.
      3. Finish: Clear Anodized.
      4. Finish: White Powder-coat.
      5. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Rakks Style Brackets can be provided with retaining pins to secure shelves from shifting on brackets. Retain the following paragraph if optional retaining pins are required.

* + 1. Retaining Pins: 5/32 inch (4 mm) diameter by 0.3 inch (8 mm) long steel pin to secure shelf from shifting on bracket.

\*\* NOTE TO SPECIFIER \*\* PVC shelf couplers can be provided to fit over Rakks Style Brackets and provide sufficient supporting surface for two adjoining shelves. Include the following paragraph if optional shelf couplers are required.

* + 1. Shelf Couplers: 1 inch (25 mm) wide PVC extrusion pinned to top of bracket for supporting two adjoining shelves. Coupler is pre-drilled to allow shelves to be attached with screws.

\*\* NOTE TO SPECIFIER \*\* Select extrusion color. Delete two of the next three paragraphs.

* + - 1. Extrusion Color: Black.
      2. Extrusion Color: White.
      3. Extrusion Color: Translucent.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify Universal Style Brackets.

* + 1. Tapered Bracket: Fabricated from aluminum T section providing a 1 inch (25 mm) wide horizontal surface to support shelf and notched at back end to engage channel of support standard or pole.

\*\* NOTE TO SPECIFIER \*\* Select bracket model. Delete one of the next two paragraphs.

* + - 1. Model: BU-009: Tapering from 2 inches (51 mm) maximum depth by 9 inches (229 mm) nominal length to accommodate 9 to 11 inches (229 to 279 mm) wide shelves and 70 pounds (32 kg) load capacity.
      2. Model: BU-012: Tapering from 2 inches (51 mm]) maximum depth by 11-3/4 inches (298 mm) nominal length to accommodate 12 to 14 inches (305 to 356 mm) wide shelves and 60 pound (27 kg) load capacity.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify Aria Style Brackets.

* + 1. Two-Piece Brackets: Fabricated from aluminum in two pieces to be placed above and below shelf and secured to channels of support standards and poles with set screws; Aria Style Brackets as manufactured by Rakks Architectural Shelving and Hardware.
       1. Shelf Width: 5 inches to 12 inches. (127mm - 305 mm).
       2. Bracket load capacity: 50 pounds (23 kg).

\*\* NOTE TO SPECIFIER \*\* Select bracket model. Delete one of the next two paragraphs.

* + - 1. Model BA-001: Two curvilinear, open design pieces each 5 inches long by 1-3/8 inches deep (127 mm x 35 mm) to be installed above and below shelf.
      2. Model BA-002: One curvilinear, open design piece 5 inches long by 1-3/8 inches deep (127 mm x 35 mm) to be installed below shelf and one L-shaped hold-down bracket to be installed above shelf.

\*\* NOTE TO SPECIFIER \*\* Rakks Tray Brackets are L and T shaped brackets that can support 6 to 12 inch (152 to 305 mm) shelves. When used with 1 inch (25 mm) thick shelves they create a "floating" appearance. Retain the following paragraph to specify Tray Brackets.

* + 1. Tray Brackets: L-shaped and T-shaped brackets, 1-1/8 inches (29 mm) deep with bottom flanges to support shelves.

\*\* NOTE TO SPECIFIER \*\* Rakks Floating Display Brackets fit into a pre-cut groove in shelf to create a "floating" appearance of shelf with no visible hardware. These brackets are appropriate for light-duty display applications with 4 to 12 inches (102 to 305 mm) deep wood or acrylic shelves. Retain the following paragraph to specify Floating Display Brackets.

* + 1. Floating Display Brackets: 1/4 by 1/2 inch (6mm x 13 mm) bracket designed to fit into pre-cut groove in shelf to create "floating" appearance of shelf with no visible hardware.

\*\* NOTE TO SPECIFIER \*\* Rakks Universal Bookend is wire formed and can be installed into the front of standards or poles at any point. It is 8 inches (203 mm) long and is provided in 3 powder paint colors. As an option, Rakks Style Brackets can also be used as bookends and should be provided one size smaller than shelf depth. Include the following paragraph to specify Universal Bookends.

* + 1. Universal Bookends: Provide wire formed 8 inches (230mm) long bookends with powdered paint coating in quantities scheduled for insertion in channels of wall standards and support poles.

\*\* NOTE TO SPECIFIER \*\* Select color. Delete two of the next three paragraphs.

* + - 1. Color: Black.
      2. Color: White.
      3. Color: Silver.

\*\* NOTE TO SPECIFIER \*\* Rakks Notched Bracket Shelf Stiffener can be used to provide additional support under wood or glass shelves to accommodate wide spans and to control shelf deflection. Retain the following paragraph to specify Notched Bracket Shelf Stiffeners.

* + 1. Shelf Stiffeners: Where scheduled or indicated on Drawings, provide notched brackets and a 1/4 by 1 - 1/4 inch (6mm x 32 mm) aluminum bar with clear anodized finish. Use shelf stiffeners to provide additional shelf support and deflection control.

\*\* NOTE TO SPECIFIER \*\* Rakks Desk Bracket can be used to support a work surface 20 to 24 inches (508 to 610 mm) deep. Retain the following paragraph to specify Rakks Desk Bracket.

* + 1. Desk Bracket: Where scheduled or indicated on Drawings provide 18 inch (457 mm) long T-shaped brackets with diagonal braces for support of work surface and capable of supporting 120 pounds (54 kilograms) per bracket.

\*\* NOTE TO SPECIFIER \*\* Rakks L-Bracket is designed to attach with a single screw to the threaded side channel of Rakks PC2 Support Pole. Retain the following paragraph to specify Rakks L-Brackets.

* + 1. L-brackets: Where scheduled provide 0.937 by 1.56 inch (24mm x 40 mm) L-shaped bracket designed to attach with a single screw to the threaded side channel of a support pole. Equip brackets with countersunk holes for anchoring wood shelf ends and retaining pins to hold extruded aluminum shelves securely in place.

\*\* NOTE TO SPECIFIER \*\* Delete the entire next article if welded aluminum brackets are not required.

* 1. COUNTER AND SILL SUPPORT BRACKETS

\*\* NOTE TO SPECIFIER \*\* Rakks Architectural Shelving and Hardware manufactures several types and sizes of welded aluminum brackets to support counters, benches, vanities, sills, and shelves. In addition to the standard brackets listed below, Rakks Architectural Shelving and Hardware can custom fabricate aluminum brackets for other applications. Contact Rakks Architectural Shelving and Hardware for assistance in specifying custom fabricated brackets.

* + 1. General: Support brackets fabricated by welding miter cut extruded aluminum sections, grinding and deburring sharp edges and welds, drilling holes for field attachment, and factory finishing.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify surface mounted counter brackets.

* + 1. Surface Mounted Counter Brackets: L-shaped bracket fabricated from aluminum T sections.

\*\* NOTE TO SPECIFIER \*\* Select Counter Bracket Model. Delete three of the next four paragraphs.

* + - 1. Model: EH-1209.
         1. Depth: 13 inches (330mm).
         2. Load capacity per bracket: 650 pounds (204 kg).
      2. Model: EH-1212.
         1. Depth: 18 inches (457mm).
         2. Load capacity per bracket: 650 pounds (204 kg).
      3. Model: EH-1818.
         1. Depth: 24 inches (610mm).
         2. Load capacity per bracket: 450 pounds (295 kg).
      4. Model: EH-1824.
         1. Depth: 30 inches (762mm).
         2. Load capacity per bracket: 450 pounds (295 kg).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete five of the next six paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Mill.
      3. Finish: Primed.
      4. Finish: Off-white powder-coat.
      5. Finish: Clear Anodized.
      6. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify flush mounted counter brackets.

* + 1. Flush Mounted Counter Brackets: Fabricated from horizontal aluminum T section and vertical aluminum L section. Vertical leg designed to attach to side of supporting stud and be concealed by gypsum board or other wall finish.

\*\* NOTE TO SPECIFIER \*\* Select Counter Bracket Model. Delete three of the next four paragraphs.

* + - 1. Model: EH-1209FM.
         1. Depth: 11 inches (279mm).
         2. Load capacity per bracket: 430 pounds (195 kg).
      2. Model: EH-1212FM.
         1. Depth: 14 inches (356mm).
         2. Load capacity per bracket: 430 pounds (195 kg).
      3. Model: EH-1818FM.
         1. Depth: 20 inches (508mm).
         2. Load capacity per bracket: 300 pounds (136 kg).
      4. Model: EH-1824FM.
         1. Depth: 26 inches (660mm).
         2. Load capacity per bracket: 300 pounds (136 kg).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete five of the next six paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Mill.
      3. Finish: Primed.
      4. Finish: Off-white powder-coat.
      5. Finish: Clear Anodized.
      6. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Aluminum faceplates can be provided to conceal the penetration of flush mounted counter support brackets through the gypsum board wall finish and provide a neat, finished appearance. Retain the following paragraph to specify this option.

* + - 1. Faceplates: Provide 4 inch by 4 inch (102mm x 102 mm) aluminum faceplates with adhesive backing and notched to fit around vertical flange of flush mounted counter support bracket and conceal penetration through gypsum board providing neat, finished appearance.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify Rakks Custom EH Bracket for use in applications requiring an angled sloping surfacing. Designate Size and angle of slope.

* + 1. Custom EH Bracket: Custom sloped, surface mounted bracket for supporting sloping counter or shelf. Fabricated from aluminum T sections and pre drilled to provided means for anchoring bracket and attaching sloping surface.
       1. Size and shape: As indicated on Drawings.
       2. Vertical leg: \_\_\_\_\_ inches (\_\_\_\_ mm).
       3. Sloping support leg: \_\_\_\_\_ inches (\_\_\_\_ mm).
       4. Angle between legs: \_\_\_\_\_ degrees.

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete five of the next six paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Mill.
      3. Finish: Primed.
      4. Finish: Off-white powder-coat.
      5. Finish: Clear Anodized.
      6. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify Rakks Sill Mounts designed to support sills and low profile shelves.

* + 1. Surface Mounted Sill Brackets: L-shaped bracket fabricated from structural aluminum angles for sills.

\*\* NOTE TO SPECIFIER \*\* Select Sill Bracket Model. Delete one of the next two paragraphs.

* + - 1. Model: FB-0404.
         1. Depth: 3.5 inches (89 mm).
         2. Load capacity per bracket: 150 pounds (68 kg).
      2. Model: FB-0406.
         1. Depth: 6 inches (152 mm).
         2. Load capacity per bracket: 120 pounds (54 kg).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete five of the next six paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Mill.
      3. Finish: Primed.
      4. Finish: Off-white powder-coat.
      5. Finish: Clear Anodized.
      6. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph if vanity brackets are required. Vanity brackets simplify and reduce the cost of installing sinks and provide a stable and sturdy mounting surface for custom-built enclosures. Vanity brackets are sold in one stock size and also on a custom made-to-order basis. Compatible with continuous blocking, or double-stud construction, brackets can be spaced as much as 4 feet (1.2 m) apart. Contact Rakks Architectural Shelving and Hardware for more information.

* + 1. Vanity Brackets: Surface mounted bracket fabricated from miter cut and welded aluminum sections; with wooden strips on the front faces to provide for the convenient mounting, or removal, of laminated or solid surface panels.

\*\* NOTE TO SPECIFIER \*\* Delete options for hardware not required

* + - 1. Hardware: 1/4 inch x 2 inch (6 mm x 51 mm) Philips pan head sheet metal screws or heavy duty Toggle Bolts.
      2. Hardware: Heavy duty toggle bolts a for mounting into metal studs.

\*\* NOTE TO SPECIFIER \*\* Select configuration. Delete one of the next two paragraphs.

* + - 1. Standard Configuration: C-shaped with vertical rear leg for attachment to wall, horizontal member for supporting vanity top, and vertical front leg with sloped return for attachment of front baffle.
         1. Size: 18 inches (457 mm) depth below sink of attachment to wall by 21-1/2 inches (546 mm) from wall to face.
      2. Custom Configuration: Custom, as indicated on the Contract Drawings.

\*\* NOTE TO SPECIFIER \*\* Use values for A, B, C and E below to specify dimensions, and specify angle for D.

* + - * 1. A: \_\_\_\_\_ inches (\_\_\_\_ mm).
        2. B: \_\_\_\_\_ inches (\_\_\_\_ mm).
        3. C: \_\_\_\_\_ inches (\_\_\_\_ mm).
        4. D: \_\_\_\_\_ degrees.
        5. E: \_\_\_\_\_ inches (\_\_\_\_ mm).
      1. Finish: Mill.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Face Plates: EH-FP22, 2.75 inch (70 mm) projection, 2 inch (51 mm) deep slot.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Face Plates: EH-FP23, 2.75 inch (70 mm) projection, 3 inch (76 mm) deep slot..

\*\* NOTE TO SPECIFIER \*\* Any of the Rakks welded aluminum brackets can be provided with holes and rubber grommets for under-counter wire management. Retain the following paragraph if grommets are required.

* + 1. Wire Management Grommets: Where indicated in the Contract Documents, provide brackets with holes and rubber grommets with 5/8 inch (16 mm) diameter opening to accommodate RJ-45 connector or wire ties.

\*\* NOTE TO SPECIFIER \*\* Delete the entire next article if aluminum shelves are not required. Rakks Architectural Shelving and Hardware can also custom fabricate wood veneer, plastic laminate, melamine, and glass shelves. Contact Rakks Architectural Shelving and Hardware for options and assistance in specifying custom fabricated shelves. Delete if not required

* 1. BENCH SUPPORT BRACKETS

\*\* NOTE TO SPECIFIER \*\* Delete if not required. Seating planks may be wood or comparable composite material.

* + 1. EH-1416B Surface Mount Bench Bracket: Surface mounted bracket fabricated from aluminum T sections and predrilled to provided means for anchoring bracket and attaching three, 5 inch (127 mm) seating planks.
       1. Size (height by depth): 14-1/4 by 15-3/4 inches (362 by 340 mm).
       2. Load capacity per bracket: 450 pounds (204 kg).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete five of the next six paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Mill.
      3. Finish: Primed.
      4. Finish: Off-white powder-coat.
      5. Finish: Clear Anodized.
      6. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete if not required. Seating planks may be wood or comparable composite material.

* + 1. EHB Inside Wall Bench Bracket: Stud mounted bracket fabricated from aluminum T sections and predrilled to provided means for anchoring bracket to wall stud and attaching three, 5 inch (127 mm) seating planks.
       1. Size (height by depth): 18 by 18-1/4 inches (457 by 464 mm).
       2. Load capacity per bracket: 450 pounds (204 kg).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete five of the next six paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Mill.
      3. Finish: Primed.
      4. Finish: Off-white powder-coat.
      5. Finish: Clear Anodized.
      6. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete if not required. Seating planks may be wood or comparable composite material.

* + 1. Single Arm Floor Mount Pedestal Bench Bracket: Floor mounted bracket fabricated from aluminum T sections and predrilled to provided means for anchoring bracket to wall stud and attaching three, 5 inch (127 mm) seating planks.
       1. Size (height by depth):

\*\* NOTE TO SPECIFIER \*\* Delete one of the two subparagraphs below.

* + - * 1. 18 by 14 inches (457 by 356 mm).
        2. 24 by 14 inches (607 by 356 mm).
      1. Load capacity per bracket: 400 pounds (181 kg).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete five of the next six paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Mill.
      3. Finish: Primed.
      4. Finish: Off-white powder-coat.
      5. Finish: Clear Anodized.
      6. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete if not required. Seating planks may be wood or comparable composite material.

* + 1. Double Arm Floor Mount Pedestal Bench Bracket: Floor mounted bracket fabricated from aluminum T sections and predrilled to provided means for anchoring bracket to wall stud and attaching three, seating planks.
       1. Seating plank widths:

\*\* NOTE TO SPECIFIER \*\* Delete one of the two subparagraphs below.

* + - * 1. 5 inch (127 mm).
        2. (inch / mm) \_\_\_\_\_\_.
      1. Size (height by depth):

\*\* NOTE TO SPECIFIER \*\* Delete one of the two subparagraphs below.

* + - * 1. 18 by 16 inches (457 by 406 mm).
        2. 24 by 16 inches (607 by 406 mm).
      1. Load capacity per bracket: 400 pounds (181 kg).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete five of the next six paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Mill.
      3. Finish: Primed.
      4. Finish: Off-white powder-coat.
      5. Finish: Clear Anodized.
      6. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  1. EXTRUDED ALUMINUM SHELVES
     1. Aluminum Shelves: Extruded aluminum sections with textured flat top and bottom ribs that can be used by combining the following sections to form shelving ranging in width from 4 to 18 inches (102 mm to 257 mm) widths in 2 inch (102 mm) increments.
        1. Deflection over a 36 inch (914mm) Span: 1/4 inch (6 mm) with a 60 pound (27 kg) load.

\*\* NOTE TO SPECIFIER \*\* Select shelf models as required to create shelf depths (in combination) up to 18". Retain only those required from the next three options.

* + - 1. Model SA-04: 4 inches (102 mm) wide shelf with one rounded edge and weighing 0.6 pounds per foot (0.89 kg per meter).
      2. Model SA-06: 6 inches (152 mm) wide shelf with one rounded edge and weighing 0.91 pounds per foot (1.35 kg per meter)
      3. Model SAF-06: 6 inches (152 mm) wide filler shelf with square edges and weighing 1.02 pounds per foot (1.52 kg per meter).

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete two of the next three paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Clear Anodized.
      3. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Shelves can be custom cut to any length up to 144 inches (3658 mm).

* + 1. Length: Provide aluminum shelves in quantities and lengths as scheduled.

\*\* NOTE TO SPECIFIER \*\* Retain only accessories required on this project and delete all others.

* + 1. Aluminum Shelf Accessories:

\*\* NOTE TO SPECIFIER \*\* In order to use aluminum shelves in a slanted position to display literature and other products, Rakks Shelf Lip Brackets are required. Retain the following paragraph to specify Shelf Lip Brackets.

* + - 1. Shelf Lip Brackets: Where scheduled or indicated on Drawings, provide 2 inch (51 mm) aluminum shelf lip bar to be secured in notched brackets and to retain shelf and display material.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify Rakks Shelf Hold-Down Clip used to secure shelves to brackets so that they cannot be easily removed.

* + - 1. Shelf-Hold-Down Clip: Where scheduled, provide clips to anchor aluminum shelf to support bracket. Secure clip to both bracket and shelf with set screws.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify Rakks Shelf Spline used to joint aluminum shelf section end-to end to form a continuous shelf greater than 144 inches (3658 mm). Shelves must be joined at a bracket.

* + - 1. Shelf-Splines: Where extruded aluminum shelves are joined end-to end to form one continuous shelf, provide 5 inch (127 mm) long shelf spline with groove to fit over adjacent shelf ribs.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify Rakks Label Holders.

* + - 1. Label holder: Where scheduled provide shelf holder designed to attach to front edge of aluminum shelf with concealed thumbscrew and to hold 1/2 inch (13 mm) high label.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify Rakks Shelf End Caps.

* + - 1. Shelf End Cap:
         1. Model: SA-END.
         2. Description: Decorative aluminum cap that fits securely to end of extruded aluminum shelves. Designed to provide a finished end and protects shelf ends in high traffic areas.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify Rakks Adjustable Bookend Bracket.

* + - 1. Sliding Book End:
         1. Description: Adjustable wire bookend designed to provide a sturdy and adjustable bookend for shelves up to 14 inches (356 mm) deep. It is available in two sizes, six inch and eight inch (152 mm and 203 mm). Cold rolled steel wire form, powder coated in a silver color. Wire form attached to a laterally moving aluminum slide, in one of the channels on the underside of the aluminum shelf, affixed in any desired position by small knob.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph to specify Rakks Shelf Bridge Clips.

* + - 1. Shelf Bridge Clip:
         1. Model: SA-BRIDGE.
         2. Description: Designed to provide a way to secure aluminum extruded shelves to L-Brackets with the retaining pin option, recommended for use with mitered tie poles to keep the poles from racking side to side.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. FIXED FLOATING EXTRUDED ALUMINUM SHELVES
     1. Fixed Floating Aluminum Shelves: Extruded aluminum, designed to support static loads up to 25 pounds per linear foot.
        1. Model SAFF-08: 8-1/2 inches (216 mm) wide with pre-drilled countersunk holes at 16 inch (406 mm) centers.
        2. Length:
           1. Model SAFF-08-024, 24 inches (610 mm) long.
           2. Model SAFF-08-036, 36 inches (914 mm) l long.
           3. Model SAFF-08-052, 52 inches (1321 mm) l long.
           4. Model SAFF-08-068, 68 inches (1727 mm) l long.
           5. Model SAFF-08-084, 84 inches (2134 mm) l long.
           6. Model SAFF-08-098, 98 inches (2489 mm) l long.

\*\* NOTE TO SPECIFIER \*\* Select finish. Custom finishes are available. Contact Rakks Architectural Shelving and Hardware for more information. Delete two of the next three paragraphs.

* + - 1. Finish: As specified by the architect from the manufacturer's available options.
      2. Finish: Clear Anodized.
      3. Finish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  1. FABRICATION
     1. Material: Fabricate components from extruded aluminum sections complying with ASTM B221, 6063-T5.

\*\* NOTE TO SPECIFIER \*\* Rakks Wall Standards and other components are typically installed with No. 6 Phillips flat head zinc plated steel screws with either black or white finish to match standards. For special non-ferrous conditions, stainless steel or brass fasteners can be provided.

* + 1. Fasteners: No. 6 Phillips flat head plated steel screws. Exposed to view fasteners finished to match standards and other components.

\*\* NOTE TO SPECIFIER \*\* Standard length is 1-1/4 inches (32 mm). 2 inch (51 mm) long fasteners are optional. Delete one of the next two paragraphs.

* + - 1. Length: 1 1/4 inches (32mm)
      2. Length: 2 inches (51 mm).

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly prepared.
      2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

\*\* NOTE TO SPECIFIER \*\* Retain the next article if storage shelving is specified.

* 1. COORDINATION - STORAGE SHELVING
     1. Coordinate provision of shelving system with locations of other wall and ceiling mounted components such as visual display boards, casework, structural framing, light fixtures, and air diffusers to eliminate potential conflicts.
     2. Coordinate requirements for stud spacing, blocking, and auxiliary structural supports to ensure adequate means for installation of shelving system.
     3. Coordinate installation of shelving system with application of wall and ceiling finishes. To the extent possible install shelving components after finishes have been applied.

\*\* NOTE TO SPECIFIER \*\* Retain the next article if aluminum support brackets are specified.

* 1. COORDINATION - ALUMINUM SUPPORT BRACKETS
     1. Coordinate provision of support brackets with design and fabrication of components to be supported to ensure compatibility of dimensions and load capacity.
     2. Coordinate requirements for stud spacing, blocking, and auxiliary structural supports to ensure adequate means for installation and anchorage of support brackets.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph if Flush Mount Brackets are being specified.

* + 1. Coordinate installation of flush mounted support brackets with application of gypsum board finish specified in Section 09 29 00 - Gypsum Board. Ensure that brackets are delivered to site and installed in a timely manner to allow for vertical bracket leg to be concealed by gypsum board.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph if optional faceplates are being specified.

* + 1. After gypsum board has been applied to stud framing, install adhesive backed aluminum face plates around flush mounted brackets penetrating gypsum board.

\*\* NOTE TO SPECIFIER \*\* Retain the following paragraph is surface mounted support brackets and being specified.

* + 1. Coordinate installation of surface mounted support brackets with application of wall finishes. To the extent possible install brackets after finishes have been applied.

\*\* NOTE TO SPECIFIER \*\* Retain the next article if storage shelving is specified.

* 1. INSTALLATION - STORAGE SHELVING
     1. Install shelving system and accessories in accordance with approved shop drawings and manufacturer's installation instructions.
     2. Install shelving at locations and heights indicated on Drawings. Verify locations in field with Architect.
     3. Install standards and other support components rigidly to supporting substrate so that components are secure, plumb, and level.
     4. Install with fasteners of type, size, and quantity as supplied or recommended by shelving manufacturer for type of application and substrate.

\*\* NOTE TO SPECIFIER \*\* Include the following paragraph if wall standards are installed.

* + 1. Ensure screws used to anchor wall standards are set flush and do not project into channel.

\*\* NOTE TO SPECIFIER \*\* Include the following paragraph if multiple aluminum shelving sections are installed.

* + 1. Provide double sided foam tape between adjoining sections of aluminum shelving to maintain alignment.
    2. Thoroughly clean and polish storage system components and protect from subsequent construction activities. Remove and replace damaged components.

\*\* NOTE TO SPECIFIER \*\* Retain the next article if aluminum support brackets are specified.

* 1. INSTALLATION - ALUMINUM SUPPORT BRACKETS
     1. Install support brackets in accordance with reviewed shop drawings and manufacturer's installation instructions.
     2. Install brackets at locations and heights indicated on Drawings. Verify locations in field with Architect.
     3. Install brackets rigidly to substrate and blocking so that they are secure, plumb and aligned.
     4. Install with fasteners of type, size, and quantity as supplied or recommended by bracket manufacturer for type of application and substrate.
  2. PROTECTION
     1. Protect installed products until completion of project.
     2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION