

## DIVISION 12 – FURNISHINGS

Section Number	Title
<b>12 00 00</b>	<b>FURNISHINGS</b>
<b>12 10 00</b>	<b>ART</b>
<b>12 11 00</b>	<b>Murals</b>
12 11 13	Photo Murals
12 11 23	Brick Murals
<b>12 12 00</b>	<b>Wall Decorations</b>
12 12 13	Commissioned Paintings
12 12 16	Framed Paintings
12 12 19	Framed Prints
12 12 26	Wall Hangings
<b>12 14 00</b>	<b>Sculptures</b>
<b>12 17 00</b>	<b>Art Glass</b>
12 17 13	Etched Glass
12 17 16	Stained Glass
<b>12 20 00</b>	<b>WINDOW TREATMENTS</b>
<b>12 21 00</b>	<b>Window Blinds</b>
<b>12 24 00</b>	<b>Window Shades</b>
12 24 13	Roller Window Shades
12 24 16	Pleated Window Shades
<b>12 30 00</b>	<b>CASEWORK</b>
<b>12 36 00</b>	<b>Countertops</b>
<b>12 40 00</b>	<b>FURNISHINGS AND ACCESSORIES</b>
<b>12 41 00</b>	<b>Office Accessories</b>
<b>12 48 00</b>	<b>Rugs and Mats</b>
12 48 13	Entrance Floor Mats and Frames
12 48 16	Entrance Floor Grilles
12 48 19	Entrance Floor Gratings
12 48 43	Floor Mats
<b>12 50 00</b>	<b>FURNITURE</b>
<b>12 51 00</b>	<b>Office Furniture</b>
12 51 16	Case Goods
12 51 19	Filing Cabinets
12 51 21	Tables
<b>12 52 00</b>	<b>Seating</b>
<b>12 56 00</b>	<b>Institutional Furniture</b>
12 56 33	Classroom Furniture
12 56 39	Lecterns

## DIVISION 12 – FURNISHINGS

Section Number	Title
12 56 52	Audio-Visual Furniture
<b>12 59 00</b>	<b>Systems Furniture</b>
<b>12 60 00</b>	<b>MULTIPLE SEATING</b>
<b>12 61 00</b>	<b>Fixed Audience Seating</b>
<b>12 63 00</b>	<b>Stadium and Arena Seating</b>
<b>12 90 00</b>	<b>OTHER FURNISHINGS</b>
<b>12 92 00</b>	<b>Interior Planters and Artificial Plants</b>
<b>12 93 00</b>	<b>Site Furnishings</b>
12 93 13	Bicycle Racks
12 93 23	Trash and Litter Receptors
12 93 33	Manufactured Planters
12 93 43	Site Seating and Tables

Section Number	Title
<b>12 00 00</b>	<b>FURNISHINGS</b>
<b>12 10 00</b>	<b>ART</b> Buildings with an estimated construction cost in excess of one million dollars shall have a 1% contingency for the purchase of public artwork. NAU has jurisdiction over all artwork specification and works directly with user group representatives during the selection process.
<b>12 11 00</b>	<b>Murals</b>
12 11 13	Photo Murals
12 11 23	Brick Murals
<b>12 12 00</b>	<b>Wall Decorations</b>
12 12 13	Commissioned Paintings
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<b>12 14 00</b>	<b>Sculptures</b>
<b>12 17 00</b>	<b>Art Glass</b>
12 17 13	Etched Glass
12 17 16	Stained Glass
<b>12 20 00</b>	<b>WINDOW TREATMENTS</b> Window treatment is dictated by user preference and shall be determined, if applicable, during Design Development review meetings.  If easily accessible, window coverings can be manually operable; otherwise, coverings must be motorized with controls located at the instructor’s workstation on the AV touch panel. Where applicable, the depth of the window should be designed to allow for the installation of motorized shade tracks.  Vertical blinds and drapes are not desired. If necessary, they are to have non-plastic, heavy-duty operating components.  All window treatments are required to have a non-reflective matte finish and unless otherwise specified, the color selection should match or blend with the window frame.
<b>12 21 00</b>	<b>Window Blinds</b> Horizontal blinds are permitted, pending submittal review and approval by NAU.

Section Number	Title														
<b>12 24 00</b>	<b>Window Shades</b>														
12 24 13	Roller Window Shades Use of a light diffusing and room darkening (where applicable) roller shades are preferred. Percentages of light diffusion will be determined for each window by evaluating the individual window’s orientation and the intensity of the exposure.														
<b>12 30 00</b>	<b>CASEWORK</b>														
<b>12 36 00</b>	<b>Countertops</b>														
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<b>12 50 00</b>	<b>FURNITURE</b>														
	Furniture selection is dictated by NAU standards for classrooms and office spaces. Furniture is to be procured thru the Tri University contracts available at the NAU purchasing department. All final furniture selections are to be reviewed and approved by NAU PDC Interiors Department prior to order placement. All furniture drawings shall be reviewed for code compliance prior to final specification. For additional information refer to the <i>NAU Classroom and Office Design Guidelines</i> .														
	NAU Facility Services Planning, Design and Construction Department shall assist the Design Professional with the selection of contract products based on their requirements. Drawings, furniture plans and electrical plans, and furniture specifications are to be provided to NAU for review and final approval. The furniture specifications are to be provided with the information per item listed here.														
	<table border="0"> <tr> <td style="padding-right: 20px;">Item No./Callout</td> <td>indicated on spec sheet and furniture plans</td> </tr> <tr> <td>Manufacturer</td> <td>indicate style/series, Mfg. Number, Dimensions and Description; provide photo of item</td> </tr> <tr> <td>Fabric</td> <td>indicate manufacturer, pattern, color, width, repeat, application, and use of multiple fabric; provide photo image of fabric</td> </tr> <tr> <td>Finishes</td> <td>indicate color and application: provide photo image of finish</td> </tr> <tr> <td>Notes</td> <td>as needed for further information to order the furniture accurately</td> </tr> <tr> <td>Room # &amp; Location</td> <td></td> </tr> <tr> <td>Quantity</td> <td></td> </tr> </table>	Item No./Callout	indicated on spec sheet and furniture plans	Manufacturer	indicate style/series, Mfg. Number, Dimensions and Description; provide photo of item	Fabric	indicate manufacturer, pattern, color, width, repeat, application, and use of multiple fabric; provide photo image of fabric	Finishes	indicate color and application: provide photo image of finish	Notes	as needed for further information to order the furniture accurately	Room # & Location		Quantity	
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Section Number	Title
12 51 00	<b>Office Furniture'</b>
12 51 16	<p><b>Case Goods</b></p> <p><b>Open Office Furniture</b></p> <p>Integrated options to be available in selected system</p> <ul style="list-style-type: none"> <li>a. Height Adjustment – Adjustable worksurfaces from 24 ½” to 52” height</li> <li>b. Edge Detail – 3MM plastic edge, Bullnose or sloped edge; no laminate self edge</li> <li>c. Cable Routing – Cable management system integral to the product</li> <li>d. Privacy – Privacy screens and modesty panels required</li> <li>e. Worksurfaces – Rectangular and curvilinear required</li> <li>f. Storage – Pedestal storage to include box and file drawers with mobile option</li> <li>g. Storage – Vertical Cabinets stand alone &amp; over desk storage open or closed (desk mounted)</li> <li>h. Worksurface – Laminate covered particle board or steel core</li> <li>i. Cord Cutouts or Grommets shall be available on all worksurfaces</li> <li>j. Levelers – Leveling glides required on all support legs with minimum ½” adjustment</li> <li>k. Size – Minimum requirement depth desk unit 24” to 36”</li> <li>l. Size – Minimum requirement width desk 30” to 72”</li> </ul>
12 51 16.16	<p><b>Wood Case Goods</b></p> <p>Integrated options to be available in selected casegood</p> <ul style="list-style-type: none"> <li>a. Desk</li> <li>a. Return</li> <li>b. Credenza</li> <li>c. Bridge</li> <li>d. Bullet table</li> <li>e. Lateral file</li> <li>f. Bookcase</li> <li>g. Service module</li> </ul> <p>Specifications</p> <ul style="list-style-type: none"> <li>a. Full height back panel and pedestals</li> <li>b. Wood drawer interior</li> <li>c. One hanging file folder frame per drawer</li> <li>d. Leveling glides</li> <li>e. Pencil tray</li> </ul>
12 51 16.19	<p><b>Plastic Laminate Case Goods</b></p> <p>Integrated options to be available in selected casegood</p> <ul style="list-style-type: none"> <li>a. Desk</li> <li>b. Return</li> <li>c. Credenza</li> <li>d. Bridge</li> <li>e. Bullet table</li> <li>f. Lateral file</li> </ul>

Section Number	Title
	<ul style="list-style-type: none"> <li>g. Bookcase</li> <li>h. Service module</li> </ul>
	<p>Specifications</p> <ul style="list-style-type: none"> <li>f. Full height back panel and pedestals</li> <li>g. Wood drawer interior</li> <li>h. One hanging file folder frame per drawer</li> <li>i. Leveling glides</li> <li>j. Penciy tray</li> </ul>
12 51 19	<p><b>Filing Cabinets</b></p> <p>Integrated options to be available in selected storage</p> <p>LATERAL FILES</p> <ul style="list-style-type: none"> <li>a. Steel construction</li> <li>b. Available Front to back or side to side drawer configuration</li> <li>c. Locking</li> <li>d. Available Multiple widths (30",36" &amp; 42")</li> <li>e. Available in multiple heights (26 1/4" to 62 3/4")(minimum)</li> <li>f. Leveling glides</li> <li>g. Laminate top option</li> <li>h. Safety interlock to open one (1) drawer at a time</li> <li>i. Counter weights (required)</li> </ul> <p>BOOKCASES</p> <ul style="list-style-type: none"> <li>a. Steel construction</li> <li>b. Available Multiple widths (30",36" &amp; 42")</li> <li>c. Available in multiple heights (26" to 65")(minimum)</li> <li>d. Adjustable shelves</li> <li>e. Laminate top option</li> </ul> <p>STORAGE CABINETS</p> <ul style="list-style-type: none"> <li>a. Steel construction</li> <li>b. Adjustable shelves</li> <li>c. Locking</li> <li>d. Available in multiple heights 26" to 65" minimum</li> <li>e. Available in Multiple widths</li> <li>f. Available in 18" depth (minimum)</li> </ul>
12 51 21	<p><b>Tables</b></p> <p>Integrated options to be available in selected table style</p> <ul style="list-style-type: none"> <li>a. Round Top diameters (30" to 60")(minimum)</li> <li>b. Square Top dimensions (30"X30") to (48"X48") (minimum)</li> <li>c. Rectangular Top dimensions (24"X48") to (30"X72")(minimum)</li> <li>d. Laminate Top</li> <li>e. Leveling Glides</li> <li>f. Chrome Base Option</li> <li>g. Caster option for smaller tables</li> </ul>

Section Number	Title
<b>12 52 00</b>	<b>Seating</b>
	<b>High Performance Ergonomic Task Seating</b>
	Integrated options to be available in selected chair style
	<ul style="list-style-type: none"> <li>a. Adjustable seat angle</li> <li>b. Adjustable back angle, tilt and vertical adjustment</li> <li>c. Adjustable seat depth and tilt</li> <li>d. Adjustable back height</li> <li>e. Pneumatic height adjustment</li> <li>f. Swivel tilt</li> <li>g. Height, width and pivot adjustable arms</li> <li>h. Armless</li> <li>i. Soft arm caps</li> <li>j. Fully upholstered back panel</li> <li>k. Available with high and mid back</li> <li>l. Available in Plus and Small size frames</li> <li>m. Five arm base w/dual wheel casters</li> <li>n. Soft and hard wheel casters</li> </ul>

	<b>Side Seating</b>
	Integrated options to be available in selected chair style
	<ul style="list-style-type: none"> <li>a. Sled base</li> <li>b. Leg base with hard and soft caster option</li> <li>c. Plastic or poly seat and back</li> <li>d. Upholstered seat and back</li> <li>e. Plastic arm caps</li> <li>f. Frame colors available</li> <li>g. Chrome frame available</li> <li>h. Standard back height</li> </ul>

	<b>Conference seating</b>
	Integrated options to be available in selected chair style
	<ul style="list-style-type: none"> <li>a. Five arm base with casters</li> <li>b. Leg base with caster option</li> <li>c. Fixed arms</li> <li>d. Pneumatic height adjustment</li> <li>e. Tilt lock</li> <li>f. Soft arm caps</li> </ul>

<b>12 56 00</b>	<b>Institutional Furniture</b>
12 56 33	Classroom Furniture
12 56 39	Lecterns
12 56 52	Audio-Visual Furniture

Section  
Number

Title

**12 59 00**

**Systems Furniture**

12 59 13

**Panel-Hung component Systems Furniture**

Integrated options to be available in selected system

- a. Compliance with ANSI/BIFMA X5.6-2003 for all panels, components, wiring & lighting.
- b. The Entire System shall be U.L. approved.
- c. The complete system shall be of one (1) product manufacturer.
- d. Panel Types
  - i. fabric covered acoustical panel
  - ii. glazed panel
  - iii. door panel
  - iv. pass through panel
  - v. tackable acoustical panel
    - e. Panel Size – fabric covered shall be available in six panel heights ranging from 30” to 80” and at least six (6) panel widths ranging from 18” to 60”. Panels shall be a minimum of 2 ¼” thick.
    - f. Configuration of Panels – Panels shall be fully interchangeable between various sizes and heights and shall be capable of being arranged in a variety of configurations having two, three and four panels radiating from a single source
    - g. Attachment to Walls – Panels shall have provisions for attachment to permanent walls when required.
    - h. Panels shall have 1” incremental hanging capability for worksurfaces, bins and shelves inherent in the panel frame for the full height of the panel.
    - i. Cover Material – Fabric covered panels shall be covered on front and back. The fabric shall be of a woven texture; colors shall be available in muted tones (preferably grays, beige etc.)
    - j. Installation/Reconfiguration – Panel systems shall be capable of being moved and reinstalled easily without the use of highly specialized tools.
    - k. Cleaning – All surfaces of the system shall resist stain and be easily cleaned
    - l. Modification – The system shall be capable of adding electrification components in the field at some future time with a minimum of panel modification.
    - m. Finish Detail – The system shall be void of sharp-edged components
    - n. Core Construction – Core construction shall allow panel to be rigid and capable of supporting loaded components. Core construction shall not allow for flexing or torquing of panel. Panel system strength should be strong without the use of floor supported products (peds, end panels, lateral files, etc.). Counterbalance of system components should not be required.
    - o. Sound Resistance – Acoustical panels shall have a minimum of .80 NCR sound classification as tested in accordance with ASTM, C-423-90a and a minimum STC of 20 as tested in accordance with ASTM, e-413-87 (1994) shall be available within the product line. Tackable acoustical panels shall have a minimum of .65NRC sound classification as tested in accordance with the above standards.



Section Number	Title
p.	Fire Resistance – All panels shall have Class A fire rating as tested in accordance with ASTM, E84-96a.
q.	Connectors – Panel connectors shall be re-usable where necessary to connect adjacent panels to form the panel structure. Panel connectors shall be made of strong materials. The system shall have simple rigid connections.
r.	Edges & Fillers – All panel edges not joined to another panel shall be provided with a finished end cap. Corner fillers shall be used at all junctions between panels.
s.	Trim – All vertical trim shall be of metal frame and painted. Vertical side frames shall have concealed painted inserts slotted up to 1 ½” centers to maximize vertical utilization of components. The panel top shall be trimmed with a vinyl; steel, wood or fabric-covered extrusion cap and shall match the system color scheme.
t.	Levelers – A minimum of two (2) panel supported levelers shall be used to provide a rigid panel system and shall have the capability top level panels on an uneven floor. Levelers shall support the weight of the system. Levelers shall have a minimum vertical adjustment of ½”.
u.	Raceways – Raceways shall be at the top and the bottom of panels. Raceways shall be either integral or capable of being integrated into panels. Cabling within the raceway shall be concealed at all junctions between panels. Raceways shall make provisions for distribution of electrical wiring to run adjacent to data and telephone cabling. Electrical wiring shall be mechanically isolated if not shielded or in conduit.
v.	Electrical Requirements – The minimum electrical requirement shall be for a 4-circuit 8-wire system. Panels with raceways that are 24” or wider, shall have a minimum of two (2) receptacles per side and have space available for an additional port for installation of data and telephone receptacles. Electrical systems offered shall be 102v, 20 amp circuits capable of transitioning through multiple panel intersections. All receptacles whether simplex or duplex, shall support a minimum of 15 amps electrical load.
w.	Power Poles – Power poles shall be available and shall be capable of attaching to the top or the end of a panel. Or to a connecting junction and integrating with the panel electrical system.
x.	<p>Required Components</p> <ul style="list-style-type: none"> <li data-bbox="521 1482 1422 1545">i. Task Lighting - LED type, U.L listed and conforms to the National Electric Code</li> <li data-bbox="521 1556 1422 1692">ii. Work Surfaces – Shall be either steel or particle board covered with laminate. Particle board to have backer sheet underside. Minimum thickness to be 1 ¼” thick. All exposed edges shall be finished to match the worksurface or have a vinyl edge band</li> <li data-bbox="521 1703 1162 1730">iii. Work surfaces to be cantilever or floor supported</li> <li data-bbox="521 1740 1341 1768">iv. Cord Cutouts or Grommets shall be available on all worksurfaces</li> <li data-bbox="521 1778 1422 1827">v. Storage – Drawers required to include file drawers, box drawers, pencil drawers, pedestals, and flipper door storage cabinets.</li> </ul>

Section  
Number

Title

- vi. Security – All storage with the exception of the pencil drawer shall have the capability of being locked.

12 59 13

**Free-standing component Systems Furniture**

Integrated options to be available in selected system

- a. Height Adjustment – Adjustable worksurfaces from 24 ½” to 52” height
- b. Edge Detail – Bullnose, sloped edge, 3mm edge
- c. Cable Routing – Cable management system integral to the product
- d. Privacy – Privacy screens and modesty panels required
- e. Worksurfaces – Rectangular and curvilinear required
- f. Storage – Pedestal storage to include box and file drawers with mobile option
- g. Storage – Lateral File, counterweights must be included
- h. Storage – Vertical Cabinets stand alone & over desk storage open or closed (desk mounted)
- i. Worksurface – Laminate covered particle board or steel core
- j. Counter Tops – Transaction Worksurfaces
- k. Spanner Tables – Worksurfaces to connect workstations
- l. Jetty Tables/Peninsula Tables
- m. Cord Cutouts or Grommets shall be available on all worksurfaces
- n. Levelers – Leveling glides required on all support legs with minimum ½” adjustment
- o. Column mounted Shelves and Screens
- p. Multiple screen heights for privacy
- q. Multiple worksurface offerings for corner and straight units.
- r. Desk Size – Minimum requirement depth desk unit 24” to 30”
- s. Desk Size – Minimum requirement width desk 24” to 78”
- t. Corner Unit Size
- u. Storage Towers
- y. Required Components
  - vii. Task Lighting - LED type, U.L listed and conforms to the National Electric Code
  - viii. Work Surfaces – Shall be either steel or particle board covered with laminate. Particle board to have backer sheet underside. Minimum thickness to be 1 ¼” thick. All exposed edges shall be finished to match the worksurface or have a vinyl edge band
  - ix. Work surfaces to be cantilever or floor supported
  - x. Cord Cutouts or Grommets shall be available on all worksurfaces
  - xi. Storage – Drawers required to include file drawers, box drawers, pencil drawers, pedestals, and flipper door storage cabinets.
  - xii. Security – All storage with the exception of the pencil drawer shall have the capability of being locked

Section Number	Title
<b>12 60 00</b>	<b>MULTIPLE SEATING</b>
<b>12 61 00</b>	<b>Fixed Audience Seating</b> Multiple use fixed seating and tables shall be dictated by user preference and shall be determined, if applicable, during Design Development review meetings.  Manufacturer options are available thru the Tri University contract  When procuring through a General Contractor, shop drawings must be reviewed and approved by NAU PDC Interiors Department.
<b>12 63 00</b>	<b>Stadium and Arena Seating</b>
<b>12 90 00</b>	<b>OTHER FURNISHINGS</b>
<b>12 92 00</b>	<b>Interior Planters and Artificial Plants</b>
<b>12 93 00</b>	<b>Site Furnishings</b>
12 93 13	Bicycle Racks
12 93 23	Trash and Litter Receptors

Lobby Units

Large common area or hallway bins should be the standard lobby units depicted below.

**Colors:** Blue for recycling and Brown for waste. Lettering and symbols should be white. All panels of the bin should be appropriately colored.

**Wording:** “Landfill Materials” for waste and “Recycling.” Also, “nau.edu/recycling” should be displayed on the front of the bin below the symbol.

**Symbols:** The white recycling symbol is to be used for recycling and the white “waste person” symbol is to be used for “Landfill Materials.” There will be a symbol on each side of the bin (top, front, side) excluding the back.

Bins used for the pilot program are Max-R Tuscan Sideload Double Recycling Stations.

Section  
Number Title



Small and Medium Bins

For other areas that do not require the capacity of a lobby unit small and medium recycling and waste bins should be used. As for the lobby units recycling will be blue with a white recycling symbol and waste will be brown with the white “waste person” symbol.

For the recycling pilot the following bins were used:

**Medium Recycling:** Tough Guy Recycling Container, 23 gal, Blue (#4UAU7)

**Medium Waste:** Tough Guy Open-Top Trash Can, Rectangular, 23 gal. (#10F629)

**Small Recycling:** Rubbermaid Recycling Container, 7 gal, Blue (#5M785)

Section  
Number

**Small Waste:** Continental rectangular wastebasket, 7 gal, Brown (#2818BN)



#### Mini Bins

In offices there will only be a recycling bin and a mini bin. Only the recycling bin will be serviced by NAU custodial staff. A “mini bin” is given to office occupants so that clearing their own waste to a common area waste bin will be more convenient.



DIVISION 12 – FURNISHINGS

Section Number	Title
12 93 33	Manufactured Planters
12 93 43	Site Seating and Tables