tech-check specs architectural I Division 06

This is a template, so some items will apply to your project, and others won't or will be missing. When using the list, make the changes needed for your project.

The content of the Tech-Check Lists is based on our specs and MASTERSPEC®.

DIVISION 06 - WOOD.PLASTICS, AND COMPOSITES

☐ **06053 - MISCELLANEOUS ROUGH CARPENTRY**

- This section mainly specifies concealed carpentry used for supporting, shimming, or other auxiliary functions.
  - Miscellaneous carpentry is tagged either as **preservative treated** (i.e., when in touch with concrete) or **fire-retardant treated** where required by code (i.e. concealed blocking or nailers).
  - Wood is either fire-rated or preservative-treated, not both.
  - Plywood utility panels are tagged as fire-treated and not painted so marks are legible for inspection.
- **LEED PROJECTS**: Requirements and Submittals included at the beginning of the section.

☐ **064111 - PLYWOOD OR BOARD (MDF) PANELING**

- This section specifies wood composite board or plywood paneling, painted or with transparent finish.
  - Miscellaneous carpentry is tagged either as **preservative treated** (i.e., when in touch with concrete) or **fire-retardant treated** where required by code.
  - Wood is either fire-rated or preservative-treated, not both.
  - Plywood utility panels are tagged as fire-treated and not painted so marks are legible for inspection.
- **LEED PROJECTS**: Requirements and Submittals included at the beginning of the section.

☐ **064113 - WOOD-VENEER-FACED ARCHITECTURAL CABINETS - See images at the end of this list**

- Grade is AWI Premium.
- Construction: Frameless.
- Door and Drawer Front: Flush overlay.
- Exposed Surfaces: Wood Veneer - Include the following in the specs or the drawings:
  - If in the Project there is **paneling with the same veneer**, tab the cabinetwork veneer as "Match Paneling."
  - Otherwise, the following note in the drawings or specs:
    - Exposed surfaces:
      - Wood species.
      - Cut.
      - Grain direction.
      - Matching of veneer leaves.
      - Veneer matching within the panel face.
    - Semi-exposed surfaces: Melamine (thermoset decorative panels).
- Finishes are shop applied:
  - Transparent Finish: Pre-catalyzed lacquer.
  - Sheen: Flat, satin, semi-gloss, gloss.
  - Transparent finish is either clear or stained to add color.
- Cores are MDF:
  - **Basis of Design Product**: MDF by Rosebug, formaldehyde-free.
- **LEED PROJECTS**: Requirements and Submittals included at the beginning of the section.

☐ **064116 - PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS**

- Grade is AWI Custom.
- Construction: Frameless.
- Door and Drawer Front: Flush overlay.
- Exposed Surfaces:
  - Exposed surfaces: Plastic Laminate - grades are indicated in the specs.
  - Semi-exposed surfaces: Melamine (thermoset decorative panels).
- Cores are MDF:
  - **Basis of Design Product**: MDF by Rosebug, formaldehyde-free.
- **LEED PROJECTS**: Requirements and Submittals included at the beginning of the section.

☐ **064216 - FLUSH WOOD PANELING**

- This section specifies veneer-faced wood paneling, with transparent finish, stained or clear.
- Size and type of samples are applicable to the Project.
- If mockups are required, description is in the specs, location is in the Drawings.
- Paneling Rules: If there is other woodwork in the project with the same veneer as the paneling, the woodwork veneer in the other locations is described as “Match Paneling”.
- Grade is AWI Premium.
- Joints: Reveal size or describe inserts.
- Frames.
- Wood Veneer - Include the following in the specs or the drawings:
  - Wood species.
  - Cut.
  - Grain direction.
  - Matching of veneer leaves.
  - Veneer matching within the panel face.
- Finishes are shop applied:
  - Transparent Finish: Pre-catalyzed lacquer.
  - Sheen: Flat, satin, semi-gloss, gloss.
  - Transparent finish is either clear or stained to add color.
- Cores are MDF:
  - Basis of Design Product: MDF by Rosebug, formaldehyde-free.
- Installation is by Z clips (preferable) or wood hanging strips.
- **LEED PROJECTS**: Requirements and Submittals included at the beginning of the section.

☐ **066411 - GLASS-FIBER REINFORCED PLASTIC (FRP) PANELING**

- This section specifies wall panels at utilitarian spaces like janitor closets.
  - Basis of Design Manufacturer: Marlite FRP Wall Panels.
- Include color and type of panels in the Drawings.
- **LEED PROJECTS**: Requirements and Submittals included at the beginning of the section.

☐ **064600 - WOOD TRIM**

- This section specifies wood wall base and miscellaneous trim, including frames.
- If wood base is at wood-veneer-paneling, core is MDF and AWI Grade and veneer match paneling.
  - **NOTE**: Solid wood looks different from veneer - cuts are not the same, so it does not look the same.
- If wood base is not at wood paneling:
  - Veneered Trim: Core is MDF and veneer is your choice.
    - AWI Grade Custom or Premium.
    - Transparent Finish: Pre-catalyzed lacquer.
  - Solid Wood Trim: Indicate species, transparent finish as above.
    - AWI Grade Custom or Premium.
  - Opaque Finish: MDF, painted.
    - AWI Grade: Custom.
- **LEED PROJECTS**: Requirements and Submittals included at the beginning of the section.

END OF TECH-CHECKLIST

FROM THE AWI STANDARDS - ARRANGEMENT OF VENEERS

SECTION 4
Sheet Products

introductory information

MATCHING ADJACENT WOOD VENEER LEAVES

It is possible to achieve certain visual effects by the manner in which the leaves are arranged. Matching of adjacent wood veneer leaves, as with the effect of different veneer cuts, can alter the appearance of a given panel or an entire installation. To create a particular appearance, the veneer leaves of a flitch are edge glued together in patterns.

Individual leaves of veneer in a sliced flitch increase or decrease in width as the slicing progresses. Thus, if a number of panels are manufactured from a particular flitch, the number of veneer leaves per panel face will change as the flitch is utilized. The manner in which these leaves are "laid up" within the panel requires specification.

Rotary cut veneers are difficult to match; therefore most matching is done with sliced veneers. The matching of adjacent veneer leaves must be specified. Special arrangements of leaves such as "diamond" and "box" matching are available. Consult your manufacturer for choices.

White dashed lines on the following illustrations indicate the veneer trim lines.

- **Book Matching** - A common match used in the industry. Every other piece of veneer is turned over so adjacent pieces (leaves) are opened like the pages of a book.

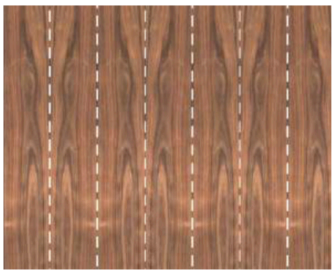

Figure: 4-021

  - Visual Effect - Veneer joints match, creating a symmetrical pattern. Yields maximum continuity of grain. When sequenced panels are specified, prominent characteristics will ascend or descend across the match as the leaves progress from panel to panel.

- Barber Pole Effect in Book Match - Because the tight side and loose side of the veneer leaf faces alternate in adjacent pieces of veneer, they may accept stain differently, and this may result in a noticeable color variation. Book matching also accentuates cell polarization, causing the perception of different colors. These natural characteristics are often called barber pole, and are not a manufacturing defect.

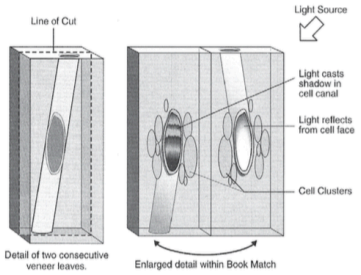

Figure: 4-022

- **Slip Matching** - Often used with quarter sliced and rift sliced veneers. Adjoining leaves are placed (slipped out) in sequence without turning, resulting in the same face sides being exposed.

  Visual Effect - Grain figure repeats; but joints do not show visual grain match.

Figure: 4-023

The lack of grain match at the joints can be desirable. The relatively straight grain patterns of quartered and rift veneers generally produce pleasing results and a uniformity of color because all faces have the same light refraction.

- **Random Matching** - Veneer leaves are placed next to each other in a random order and orientation, producing a "board by board" effect in many species.

  Visual Effect - Casual or rustic appearance, as though individual boards from a random pile were applied to the product. Conscious effort is made to mismatch grain at joints.

  Degrees of contrast and variation may change from panel to panel. This match is more difficult to obtain than book or slip match, and should be clearly specified and detailed.

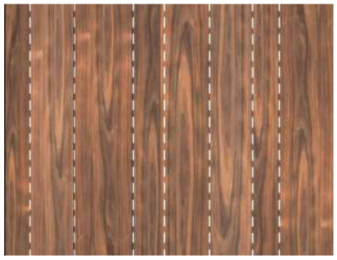

Figure:4-024

MATCHING ADJACENT WOOD VENEER LEAVES (continued)

- **End** or **Butt Matching** (a.k.a. Architectural End Match) - Often used to extend the apparent length of available veneers for high wall panels and long conference tables.

  Leaves are individually book (or slip) matched, first end to end and then side to side, alternating end and side.

  - Visual Effect - Yields best continuous grain patterns for length as well as width. Minimizes misalignment of grain pattern.

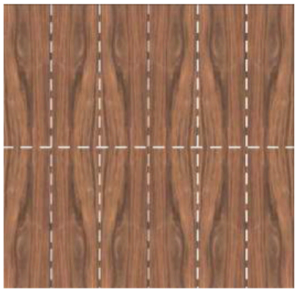

Figure: 4-025

MATCHING WITHIN INDIVIDUAL PANEL FACES

The individual leaves of veneer in a sliced flitch increase or decrease in width as the slicing progresses. Thus, if a number of panels are manufactured from a particular flitch, the number of veneer leaves per panel face will change as the flitch is utilized. The manner in which these leaves are "laid up" within the panel requires specification, and is classified as follows:

- **Running Match** - The panel face is made from components running through the flitch consecutively. Any portion of a component left over from a face is used as the beginning component or leaf in starting the next panel. **This method is the default for Custom Grade.**

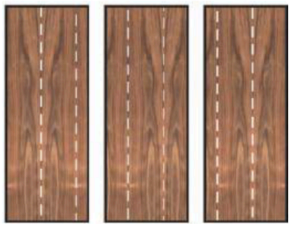

Figure: 4-026

- **Balance Match** - Each panel face is assembled from veneer leaves of uniform width before edge trimming. Panels may contain an even or odd number of leaves, and distribution may change from panel to panel within a sequenced set. While **this method is the default for Premium Grade,** it must be specified for other Grades, and it is the most common assembly method at moderate cost.

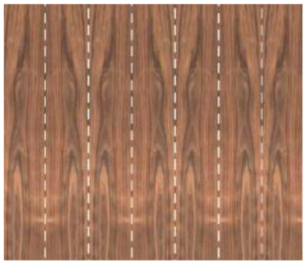

Figure: 4-027

- **Balance and Center Match** - Each panel face is assembled of an even number from veneer leaves of uniform width before edge trimming. Thus, there is a veneer joint in the center of the panel, producing horizontal symmetry. A small amount of figure is lost in the process. Considered by some to be the most pleasing assembly at a modest increase in cost over Balance Match.

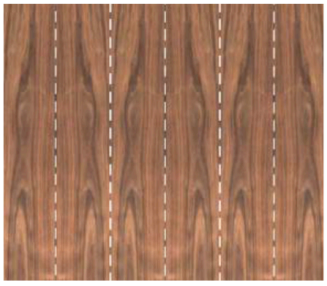

Figure: 4-028

- **Slip, Center, Book Match** - Each panel face is assembled of an even (four or more) number of veneer leaves, generally of uniform width. The veneer leaves are laid out as a slip matched panel face; then at the center, one half of the leaves are booked to the other half. Quarter and rift sliced veneers are generally used for this match, which allows for a pleasing balance of sweep and character marks.

Slip Left ◀ | ▶ Slip Right

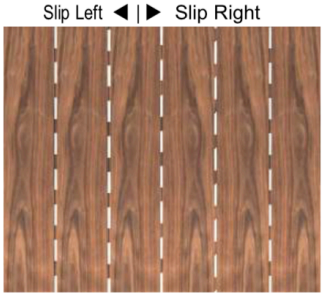

Figure: 4-029

MATCHING WITHIN INDIVIDUAL PANEL FACES (continued)

- **Swing Match** - is made by dividing the panel into multiple paired sets. For each paired set, two leaves of veneer are cut at half the width of the set. One of these two veneer leaves is rotated 180 degrees and joined to the other. This pair is then adjoined to the other pairs assembled in the same way.

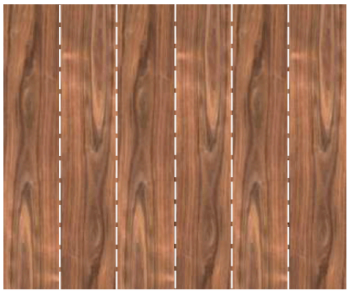

Figure: 4-030

SPECIALTY OR SKETCH MATCHES OF WOOD VENEERS

There are regional variations in the "names" of the following veneer leaf matching techniques, drawn as squares for simplicity. It is strongly recommended that the design professional use both names and drawings to define the desired effect, using a rectangle, polygon, circle, ellipse, or other shape. Rift sliced, quarter sliced, and highly figured veneers are generally used for these speciality matches. The different matches of veneer cause the reflection of light to vary from adjoining leaves, bringing "life" to the panel. Due to the inherent nature of the layup process, alignment at corners might vary.

- **Herringbone or V Book Match** - is one or more pairs of assembled slipped or booked leaves. Each assembled set of leaves is cut at generally 45 degrees to one edge of the panel. The assembled set of leaves is then end matched to the adjoining assembled set of leaves.

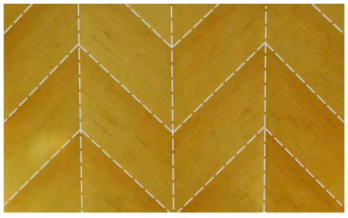

Figure: 4-031

- **Sunburst Match** - is made of six or more veneer leaves cut at the appropriate angle with the grain radiating from the center. These veneer leaves are then book matched, assembled, and trimmed for final size.

Figure: 4-032

- **Box Match** - is made of four leaves with the grain running parallel to the perimeter of the panel. The leaves are cut at the appropriate angle and end matched.

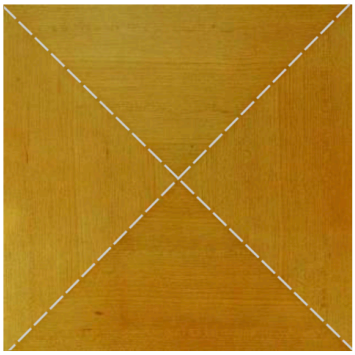

Figure: 4-033

- **Reverse or End Grain Box Match** - is made of four leaves with the grain running at right angles to the perimeter of the panel. The leaves are cut at the appropriate angle and book matched.

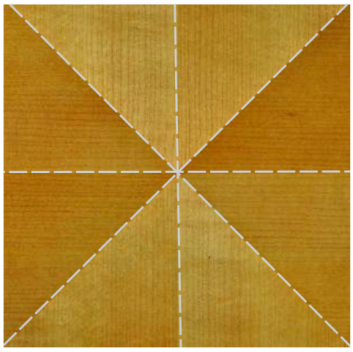

Figure: 4-034

SECTION 4
Sheet Products

introductory information

SPECIALTY OR SKETCH MATCHES OF WOOD VENEERS (continued)

- **Diamond Match** - is made of four leaves with the grain running 45 degrees to the perimeter of the panel and surrounding the center. The leaves are cut at the appropriate angle and end matched.

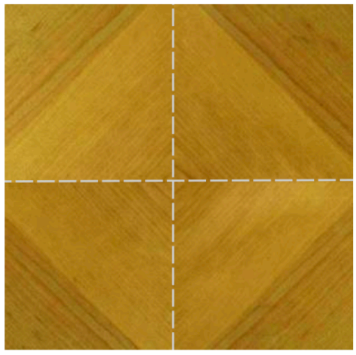

Figure: 4-035

- **Reverse Diamond Match** - is made of four leaves with the grain running 45 degrees to the perimeter of the panel and radiating from the center. The leaves are cut at the appropriate angle and book matched.

Figure: 4-036

- **Parquet Match** - is made by dividing the panel into multiple equal sized pieces and cutting the veneer to the same size. Each veneer leaf is joined at right angles to the adjoining piece of veneer.

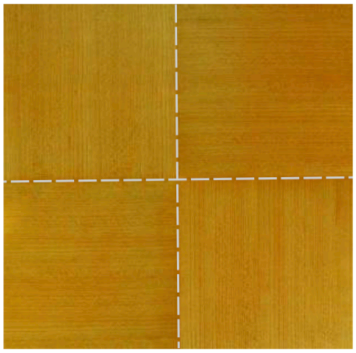

Figure: 4-037

MATCHES BETWEEN PANELS

- **Not Matched** - Veneered panels are generally manufactured without matching and may or may not be similar in grain and color.
- **Sequence Matched** - Veneered panels may be sourced and/or manufactured in sequence. These panels will be well matched for grain and color.
- **Sequence Matched & Custom Width** Generally veneered panels are manufactured in 4'x 8' and occasionally in 4'x 10' panels. The design professional may specify veneered sequence panels in custom width for the specific project and/or elevation. These panels will be well matched for grain and color.
- **Blueprint Matched** - The design professional may specify blueprint matched panels which will be custom sized height and width as well as sequencing for the specific project and/or elevation. These panels will be matched for grain and color.

DECORATIVE LAMINATES, OVERLAYS, and PRE-FINISHED PANEL PRODUCTS

Decorative surfacing materials are often applied to wood product cores such as industrial particleboard, fiberboard, hardboard, etc. Terminology and definitions of these overlay products follow, broadly grouped as:

- **Medium Density Overlay (MDO)** - Pressed resin impregnated paper overlays, highly resistant to moisture, applied to suitable cores for both interior and exterior uses. The seamless panel face and uniform density furnishes a sound base for opaque finishes and paint.
- **High Density Overlay (HDO)** - Is a thermosetting phenolic resin impregnated, cellulose fiber overlay that provides a hard, smooth, uniformly textured surface of such character that further finishing is not necessary. Some evidence of underlying grain may appear.
- **Thermoplastic Sheet** - Semi rigid sheet or roll stock extruded from a nonporous acrylic/ polyvinyl chloride (PVC) alloy solid color throughout. Withstands high impact. Minor scratches and gouges are less conspicuous due to the solid color.
- **Vinyl Films** - Polyvinyl chloride (PVC) film, either clear or solid color, used extensively for decorative vertical surfaces in mobile homes, recreational vehicles, commercial panels and movable walls. Some films are available with scuff resistant top coatings.