

gvsTM gage vertical surfacing

INSTALLATION GUIDELINES

GENERAL

1. The following are general guidelines for cutting and installation. A sample of the specific order GVSTM material is also included for the purpose of determining the best procedure for cutting panels/sheets.
2. **Place panels/sheets in climate controlled warehouse prior to delivery to site. Once panels/sheets are delivered to the site, allow panels/sheets to acclimate to room temperature (70°F) 48 hours prior to handling. Protect panel/sheet edges from damage. Store panel/sheet containers flat.**
3. When handling GVSTM panels/sheets, care should be taken to insure the panels/sheets are not twisted or allowed to sag unevenly. Using two (2) people to handle panels/sheets is strongly recommended.
4. When cutting GVSTM panels/sheets, a minimum sixty (60) tooth (preferably eighty (80) tooth) carbide-tipped alternate top bevel (ATB) saw blade with zero (0) degree hook angle designed for non-ferrous metals is recommended. Panels/sheets must be firmly supported to insure the material is not allowed to vibrate excessively. Using a table saw with the proper infeed, out feed, and side support with the minimum blade penetration is the preferred method of cutting material; however, a hand-held circular saw may be utilized if the above recommendations are followed.
5. Panel/sheet material should be fed into the table saw at a slow, steady rate with panel maintaining contact with the table saw surface to prevent excessive vibration. If a hand-held circular saw is used, this panel must be supported to allow the saw to be moved across the surface of the panel at a slow, steady rate. Protecting the surface where the base of the circular saw or the top surface of the bed of the table saw slides over the panel is recommended to prevent scratches. This protection could be in the form of an adhesive-backed tape in the proper width.
6. If a table saw with a recommended blade is used, the GVSTM panels/sheets should be cut from the backside. If a hand-held circular saw is used, the material should be cut from the face side.
7. When the GVSTM panels/sheets have been cut, the edges should be deburred utilizing normal panel deburring procedures. This will insure a smooth contact when the panels/sheets are installed.
8. When cutting GVSTM panels/sheets, basic personal protective equipment should be worn. These include, but are not limited to eye protection, hearing protection, respiratory protection, hand/finger protection, and other equipment as dictated by safety and site requirements. After cutting panels/sheets, personnel should be sure to wash hands prior to consuming food or beverages.
9. After cutting, the surface of the panel/sheet should be cleaned with compressed air to remove possible chips that could scratch the surface. The surface should be cleaned using standard surface cleaner, which does not contain solvent and a soft cloth towel.

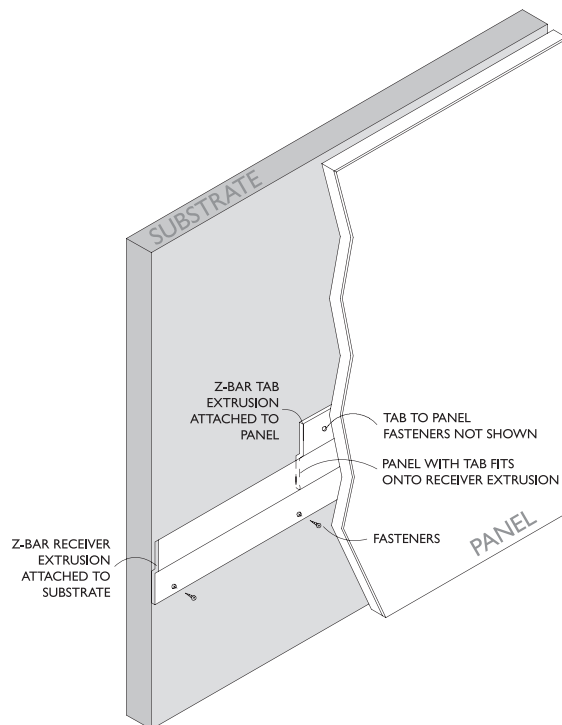
10. Post-forming is recommended only for GVS™ laminate backed panels/sheets. Acceptable post-forming results are also subject to the pattern thickness and size of the desired radius. Pre-heating to approximately 130°F should allow the panel to be formed to meet requirements. If pre-heating is not possible, the use of a hot air blower applying heated air to the surface of the panel/sheet, at the point to be formed during application, should allow the panel/sheet to be formed to meet requirements. Care should be taken to not bend the panel/sheet excessively until the panel/sheet is warm (approximately 130°F).
11. GVS™ stainless steel sheets/panels are to be field cut/sheared by the appropriate trade.
12. GVS™ aluminum sheets/panels shall be cut face up on a table saw.

SYSTEM “A” ADHESIVE INSTALLATION

1. Provide a smooth, straight, solid and clean substrate. Correct any defects prior to commencement of installation.
2. Refer to the working drawings (approved shop drawings if required) for correct panel/sheet location and layout. Verify treatment for all termination edges, inside and outside corners (if any), and required cutouts (if any).
3. Make all required cutouts prior to application of adhesive.
4. Using a roller type as recommended by the adhesive manufacturer, apply a uniform coating of adhesive to the back surface substrate at the adhesive manufacturer’s recommended rate.
5. Allow the adhesive to “flash” in accordance with the adhesive manufacturer’s recommendations.
6. Press the panel/sheet firmly into place. Using a clean and non-marring roller, roll the entire surface to ensure solid contact of the panel/sheet back surface with the substrate. Remove all traces of excess adhesive immediately.
7. Provide a non-damaging means of holding the panel/sheet in place until permanent bond occurs. Leave in place for a minimum of 24 hours.
8. Place protective streamers across the surface and leave in place until the entire project has been completed.

SYSTEM “Z” Z-BAR INSTALLATION

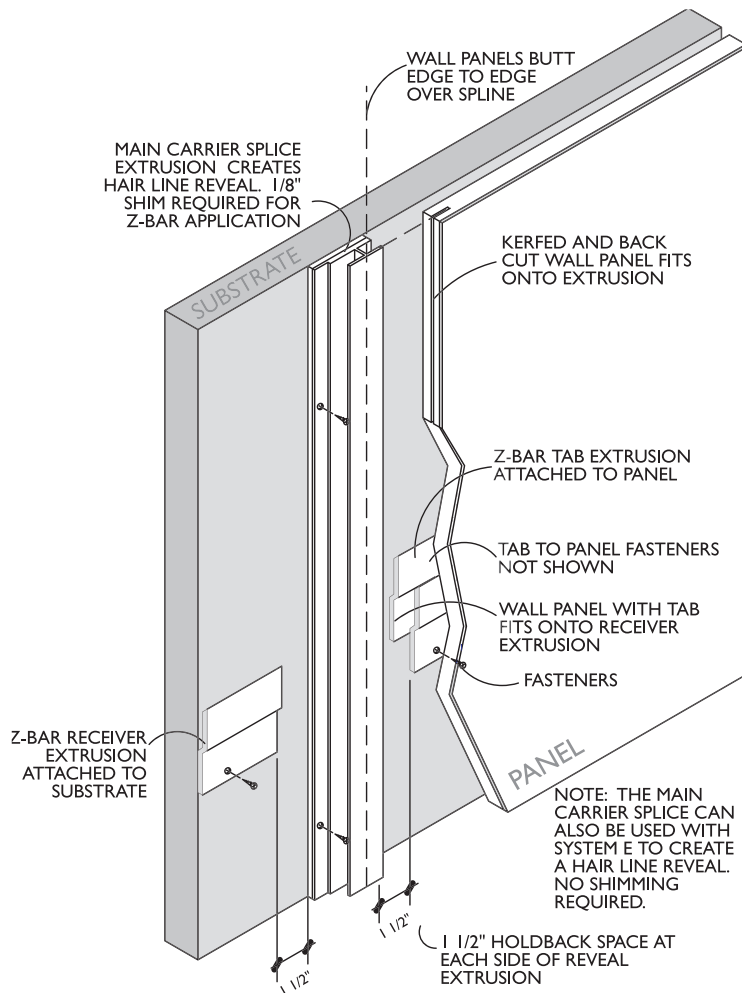
1. Provide a smooth, straight, solid and clean substrate. Correct any defects prior to commencement of installation. Verify stud spacing to determine if a plywood substrate is required for proper installation of “Z”-bars.
2. Refer to the drawings (approved shop drawings if required) for correct panel location and layout. Verify treatment for all termination edges, inside and outside corners (if any), and required cutouts (if any).
3. Make all required cutouts prior to application. Coordinate placement of cutouts with placement of z-bars.
4. Using #8 x 3/8 inch maximum pan head screws, horizontally install z-bars to back of panel. Z-bar shall extend the full width of the panel less a 1-inch gap at each side of the panel. Hold z-bar top edge down 2 inches from the top edge of the panel. Hold z-bar bottom edge up 2 inches from the bottom edge of the panel. **Space z-bars a maximum of 24 inches on center vertically.** Space fasteners at a maximum of 16 inches on center. Z bars are furnished in 8-foot lengths and are factory-punched with 0.173-inch diameter holes at 8 inches on center to accommodate screws.
5. Using #8 x 1-1/2 inch pan head screws, horizontally install z-bars to substrate. Z-bar shall extend the full width of the panel less a 1-inch gap at each side of the panel. Space fasteners at a maximum of 16 inches on center.
6. Slide panel into firmly into place for a square and plumb installation.
7. Place protective streamers across the surface and leave in place until the entire Project has been completed.



GVZ Z-BAR SYSTEM DETAIL
(NOT TO SCALE)

SYSTEM "Z" INSTALLATION WITH "THINLINE" PANEL SYSTEM OPTION

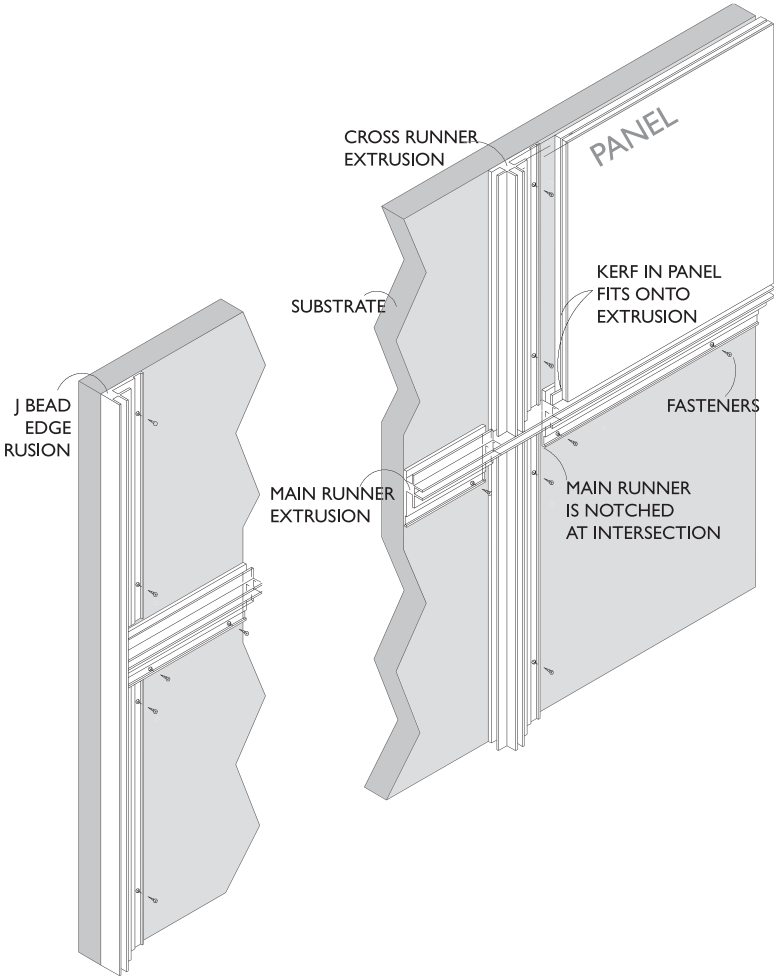
8. The main carrier splice extrusion when used in conjunction with the Z-bar installation methods requires basically no modifications to the procedures outlined above. The use of the main carrier splice requires the side of the intersection edge to be kerfed 0.500 inches deep using a 0.060 slotting cutter. The MDF also needs to be back cut .060 inches on each panel side (See below drawing). Refer to the specification section to see if this operation was done as a factory provided procedure. This installation procedure may require the use of a 0.125 inch shim to make for a flush finish surface end result while at the same time securing the main carrier splice securely to the underlying substrate. Refer to the specification and drawings to see if a "hairline" end result is required. Refer to the drawing below for general installation configuration.



SYSTEM “E” EXTRUSION INSTALLATION

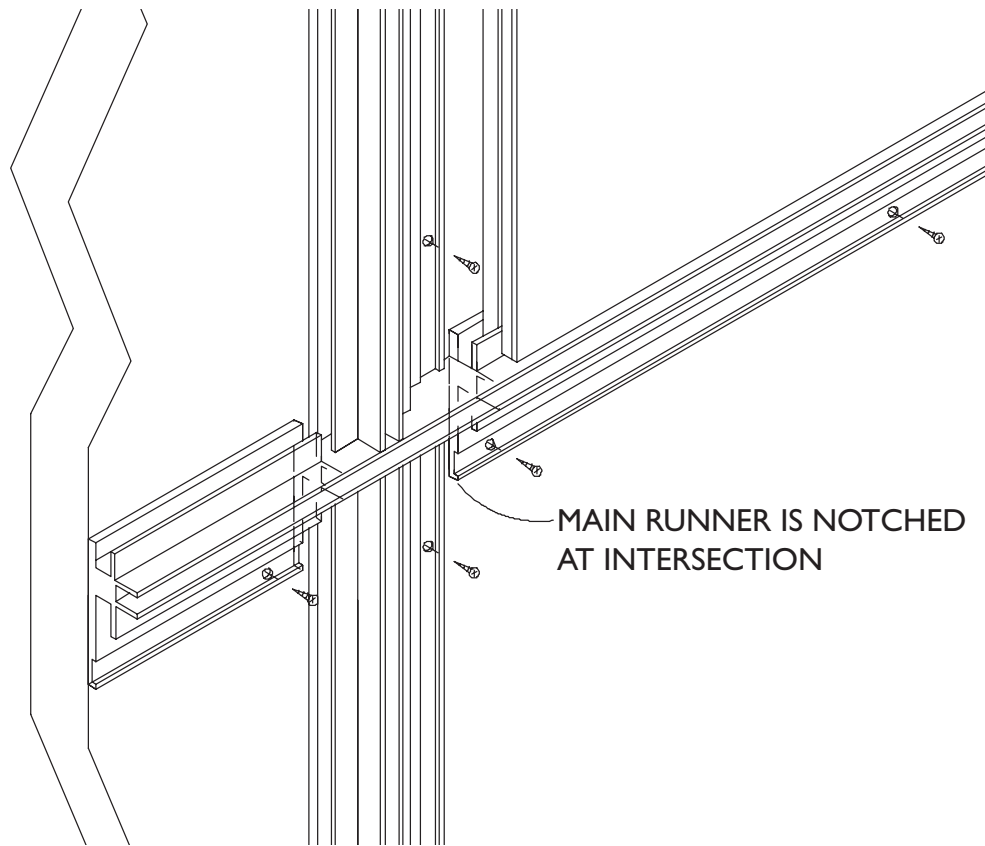
1. Provide a smooth, straight, solid and clean substrate. Correct any defects prior to commencement of installation.
2. Refer to the drawings (approved shop drawings if required) for correct panel location and layout. Pay particular attention to location of field cut panels. Verify treatment for all termination edges, inside and outside corners (if any), and required cutouts (if any). Coordinate panel surface configuration to determine starting point of perimeter trim, inside and outside corner trim (if any), and panel installation succession. If the drawings are inconsistent or incomplete, contact the factory or specifier for further assistance.
3. Make all required cutouts prior to application. Coordinate placement of cutouts with placement of extrusions.
4. Notch the vertical edge “J” trim to allow for a tight butt-joint installation of the horizontal main runners. Notch the horizontal edge “J” trim to allow for a tight butt-joint installation of the vertical cross runners. **Pre-notching “J” edge trim and horizontal mains by the factory is highly recommended.** Refer to the drawings and specifications for notching requirements.
5. Starting from the left vertical edge of the substrate as looking at the substrate, set the “J” trim to the substrate true to vertical orientation using #8 x 1-1/2 inch flathead torx screws. Space fasteners at a maximum of 16 inches on center. Countersink fastener heads so the fastener flushes out with the “J” trim recessed surface.
6. Starting from the bottom edge of the substrate as looking at the substrate, set the “J” trim to the substrate true to the horizontal orientation using #8 x 1-1/2 inch flathead torx screws. Space fasteners at a maximum of 16 inches on center. Countersink fastener heads so the fastener flushes out with the “J” trim recessed base surface.
7. Once a true 90° corner has been established, squarely set the first panel into place so that the “J” trim panel-anchoring spline fully engages the kerf in the panel edges.
8. Set the first vertical cross runner so that the “J” trim panel anchoring spline fully engages the kerf in the panel edge and fully engages the notch in the bottom “J” trim for a tight butt joint. Fasteners shall only occur on the right side recess of the base.
9. Squarely set the next panel into place so that the “J” trim panel-anchoring spline fully engages the kerf in the panel edges.
10. Set the next vertical cross runner so that the “J” trim panel anchoring spline fully engages the kerf in the panel edge and fully engages the notch in the bottom “J” trim for a tight butt joint.
11. Continue the process until the opposite right vertical edge of the bottom row of the substrate is reached.
12. Set the horizontal main runner so that the main runner anchoring spline fully engages the kerf in the panel edges and fully engages the notch in the side “J” trim and vertical cross runners for tight butt joints. Set the main runner to the substrate using #8 x 1-1/2 inch flathead torx screws. Space fasteners at a maximum of 16 inches on center. Countersink fastener heads so the fastener flushes out with the main runner recessed base surface. Fasteners shall only occur on the top recess of the main runner base.

- 13. Repeat Items “7” through “12” above until the top edge of the substrate is ready for installation of the top “J” trim. Set the top “J” trim so that the “J” trim anchoring spline fully engages the kerf in the panel edges and fully engages the notch in the side “J” trim for a tight butt joint. Set the main runner to the substrate using construction adhesive. Remove all traces of excess adhesive immediately.
- 14. Set the opposite vertical side “J” trim so that the “J” trim anchoring spline fully engages the kerf in the panel edges and fully engages the notch in the side main runners for a series of tight butt joints. Set the “J” trim to the substrate using construction adhesive. Remove all traces of excess adhesive immediately.

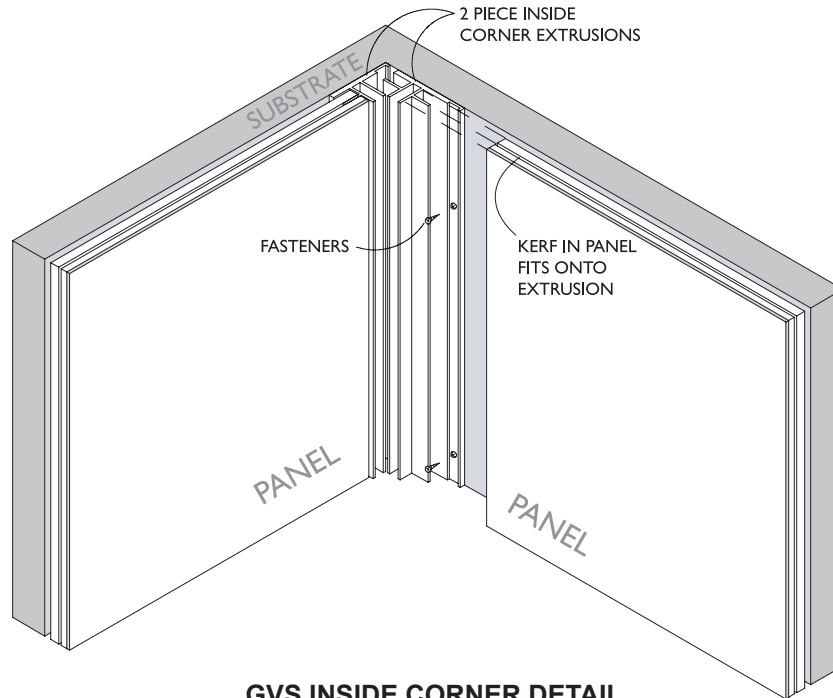


GVS FLAT WALL PANEL DETAIL
(NOT TO SCALE)

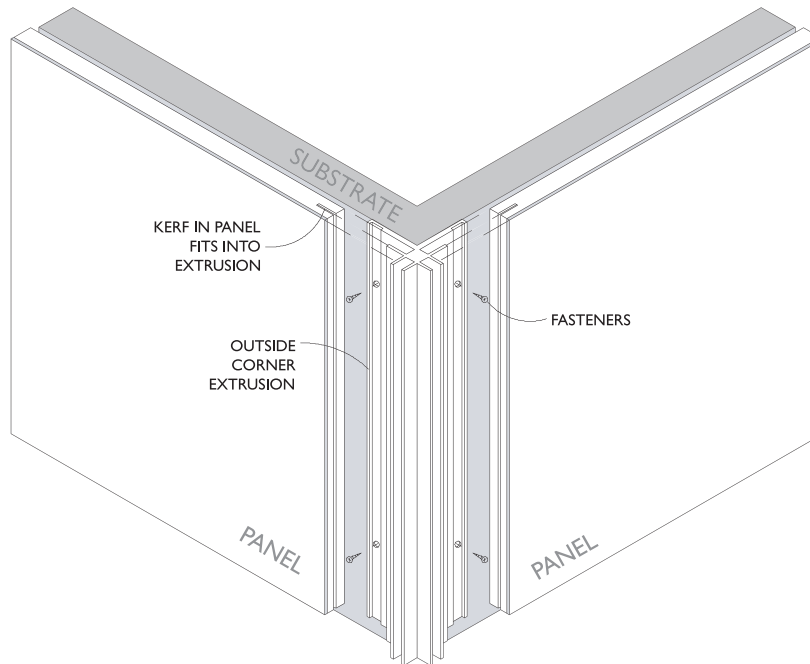
NOTE: Below is an exploded view of the intersection of the cross runners with the main runner. If properly notched, the joint at the intersection should be hairline in nature. If factory notching is specified, this end result is readily achieved.



15. The outside corner is a one-piece extrusion. The inside corner is a two-piece extrusion. Depending upon the panel surface configuration, the starting point of the installation may occur at an inside or outside corner. Panel surface configuration may allow the placement of fasteners along one leg of the base of the corner extrusion only. This is an acceptable method of installation. Set the inside and outside corner trim to the substrate using #8 x 1-1/2 inch flathead torx screws in a similar fashion to the installation of the vertical cross runners. Space fasteners at a maximum of 16 inches on center. Countersink fastener heads so the fastener flushes out with the corner trim recessed base surface. Contact the factory for further assistance.
16. Upon completion of the installation remove all debris caused by this installation. Carefully clean all surfaces with clear water and soap. If stains persist, consult with the factory.
17. Where panel size requires the use of vertical main runners and no cross runners, ignore the instructions regarding cross runner installation.
18. Place protective streamers across the surface and leave in place until the entire Project has been completed.
19. If panel replacement is required, reverse steps "7" through "15" above.



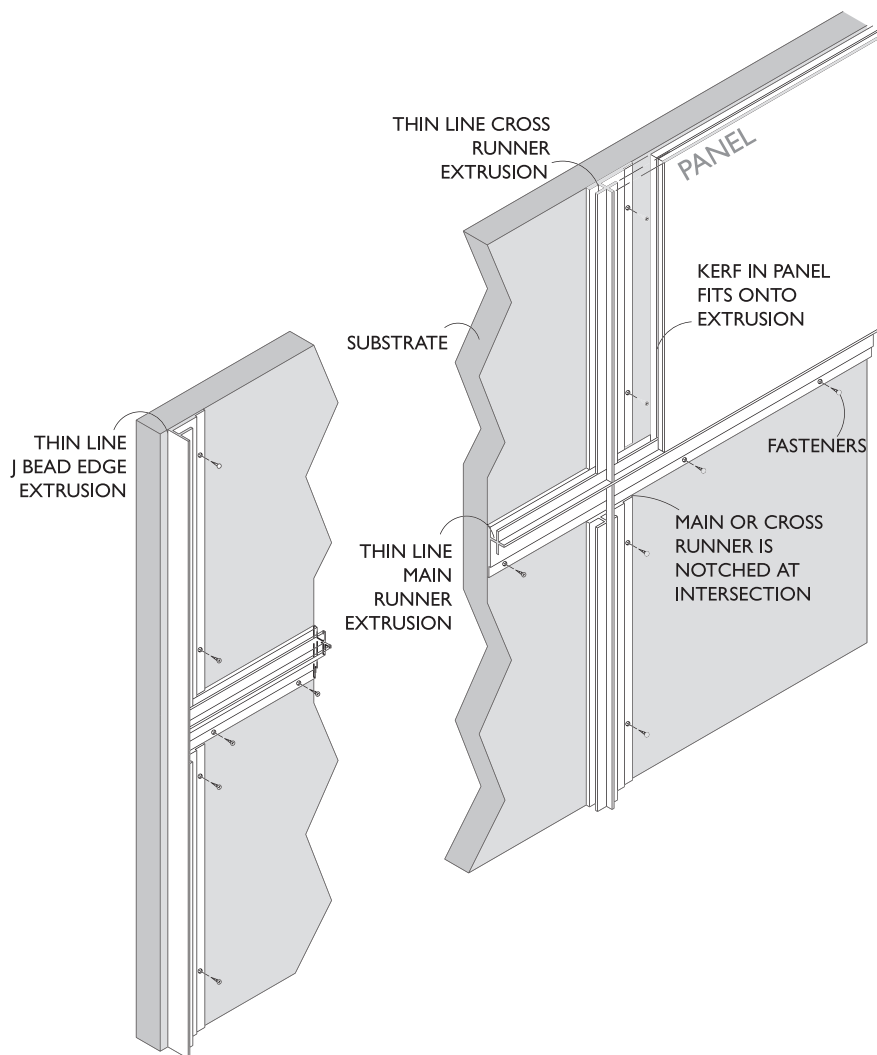
GVS INSIDE CORNER DETAIL
(NOT TO SCALE)



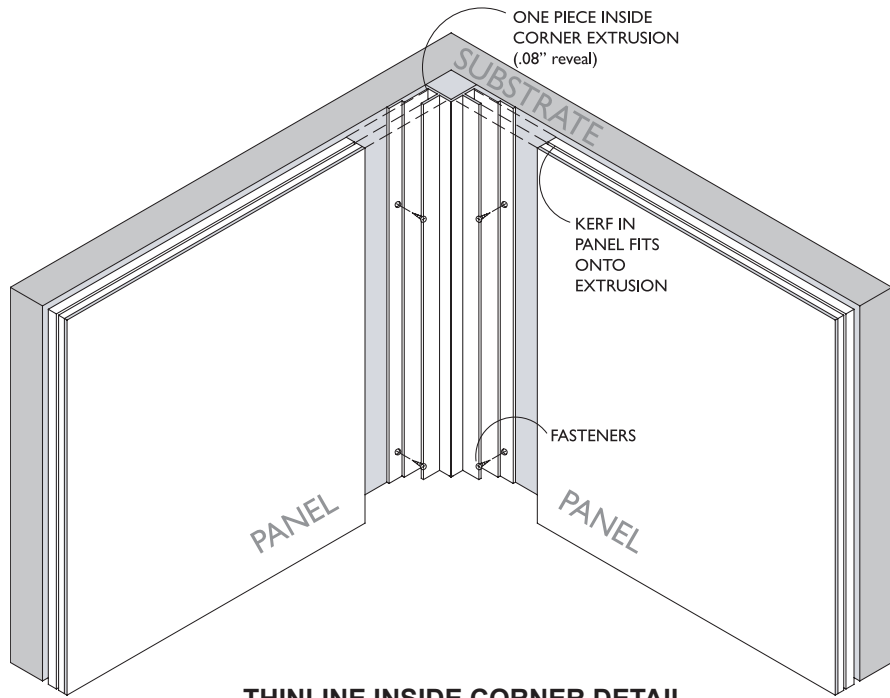
GVS OUTSIDE CORNER DETAIL
(NOT TO SCALE)

SYSTEM "E" INSTALLATION WITH "THINLINE" PANEL SYSTEM OPTION

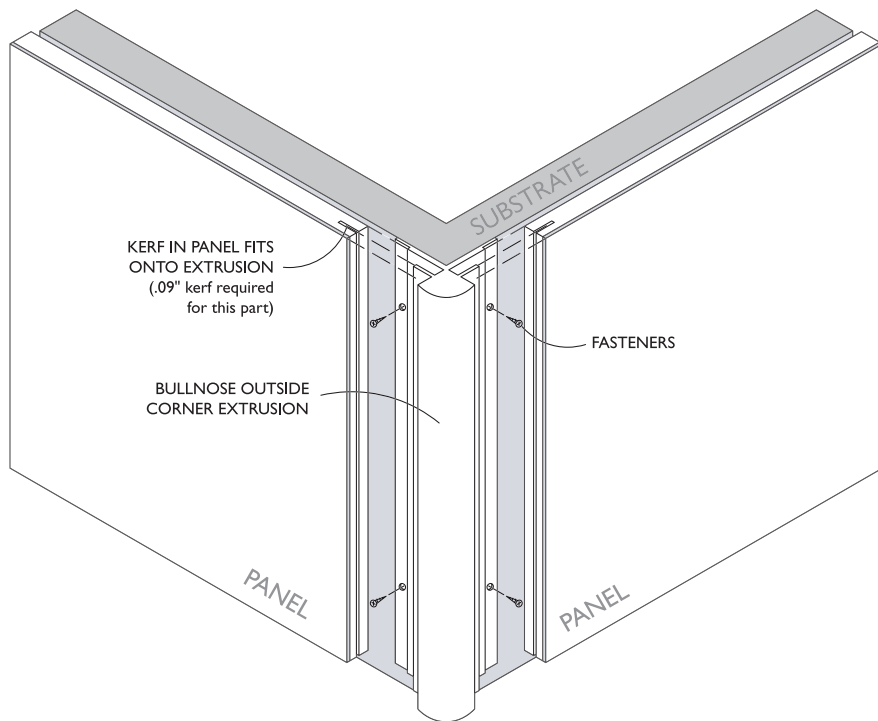
20. The "Thinline" Option extrusion when used in conjunction with the System "E" installation method requires basically no modifications to the procedures outlined above. The use of the "Thinline" extrusions requires the back of the intersection edge of the "hairline" butt joints are required to be kerfed 0.500 inches deep using a 0.060 3-wing slotting cutter. The outside corner requires the intersecting side to be kerfed 0.5000 inches deep using a 0.090 slotting cutter. Refer to the specification section to see if this operation was done as a factory provided procedure. Refer to the specification and drawings to see if a "thinline" or "hairline" end result is required.
21. The "Thinline" system provides one piece corners. Refer to the drawings below for general installation configuration.



THINLINE FLAT WALL PANEL DETAIL



THINLINE INSIDE CORNER DETAIL



THINLINE OUTSIDE CORNER DETAIL

END OF GVS™ INSTALLATION GUIDELINES