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(54) **FLOOD BARRIER WINDOW SYSTEM**

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E06B 5/10	(2006.01)

(52) **U.S. Cl.**

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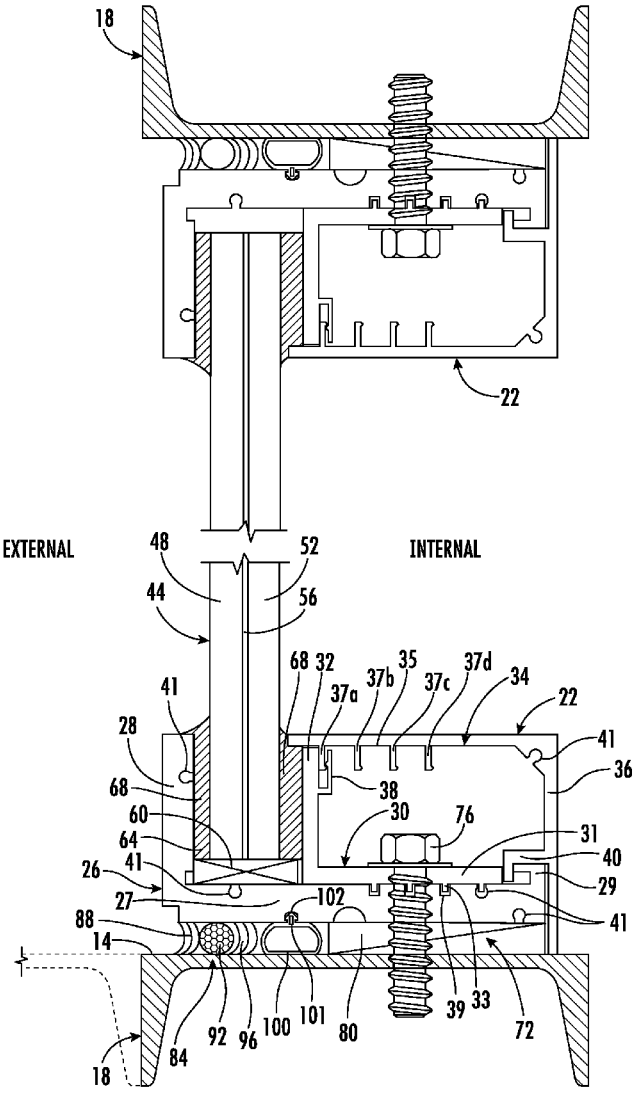
(57) **ABSTRACT**

According to one example, a window system includes a window and further includes a frame that can be coupled to an opening in a structure. The frame includes one or more window seats and one or more moveable window stops. The one or more window seats can surround all or a portion of a periphery of the window. The one or more moveable window stops can be moved and coupled to different positions along a depth of the one or more window seats. The window includes a first window portion, a second window portion, and an interlayer positioned in-between the first window portion and the second window portion. The interlayer extends out of the periphery of the window.



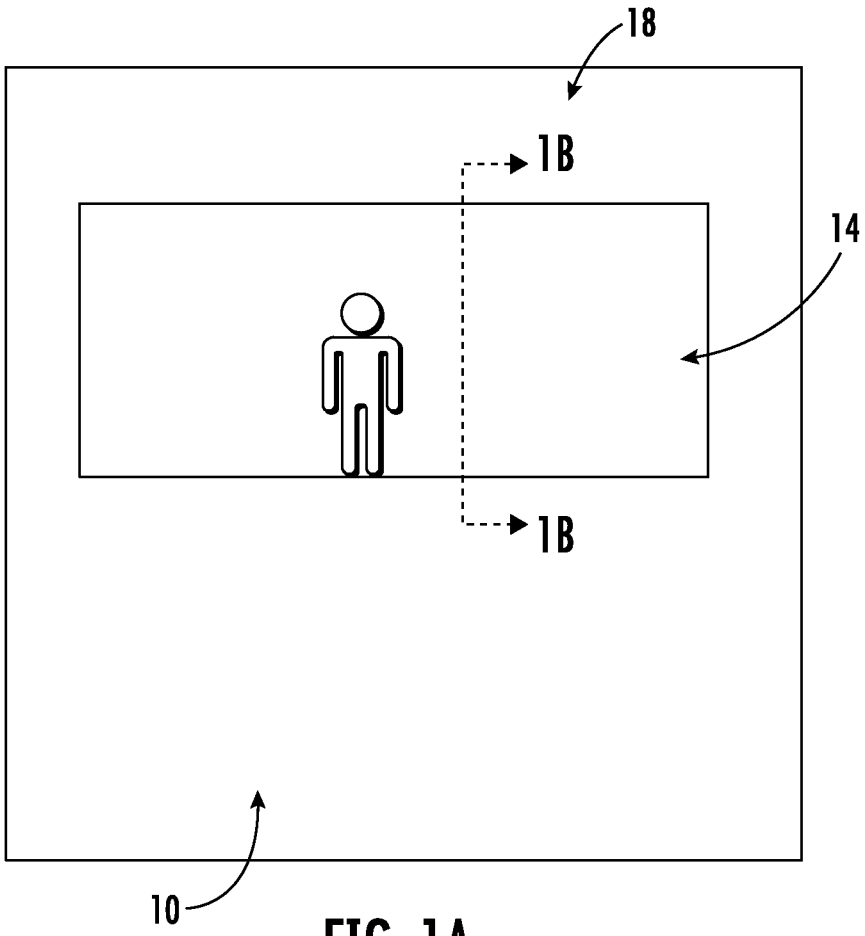


FIG. 1A

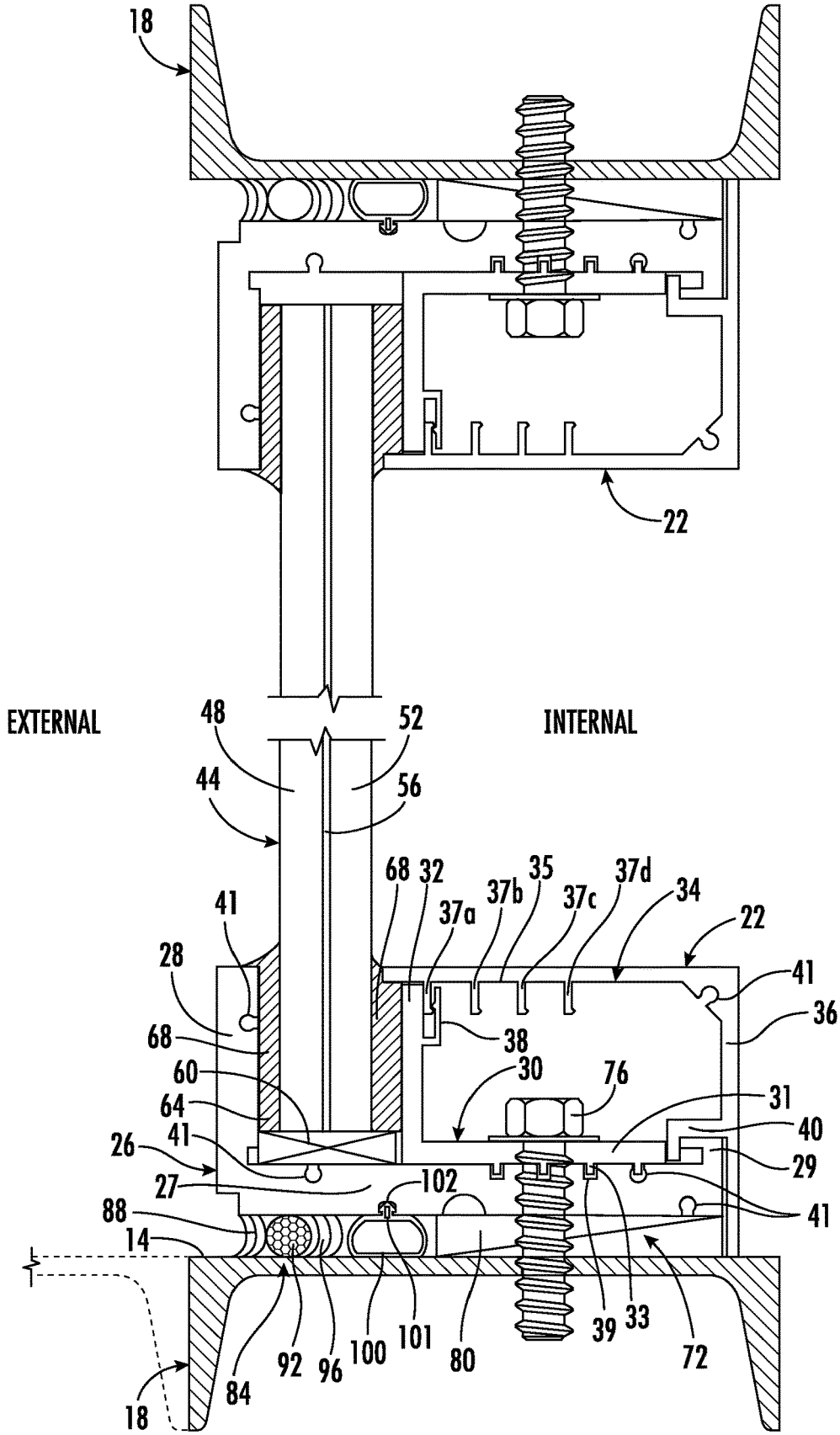

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FIG. 1B

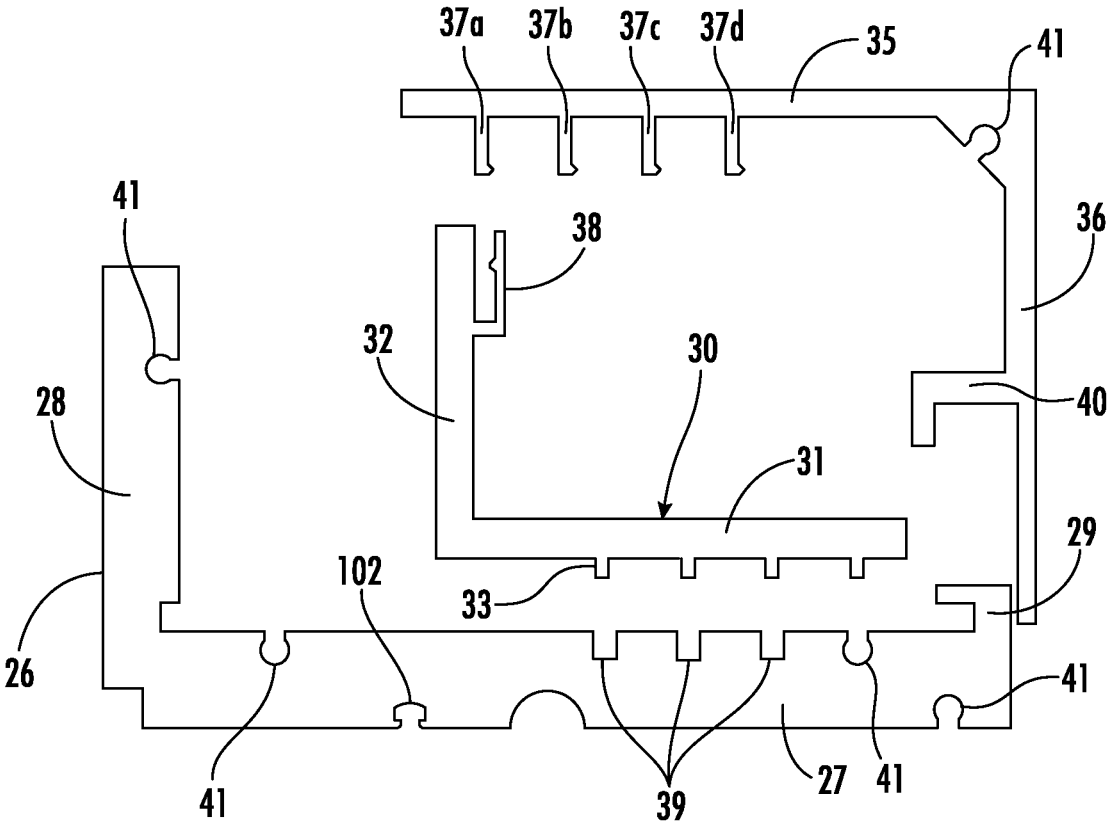
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FIG. 1C

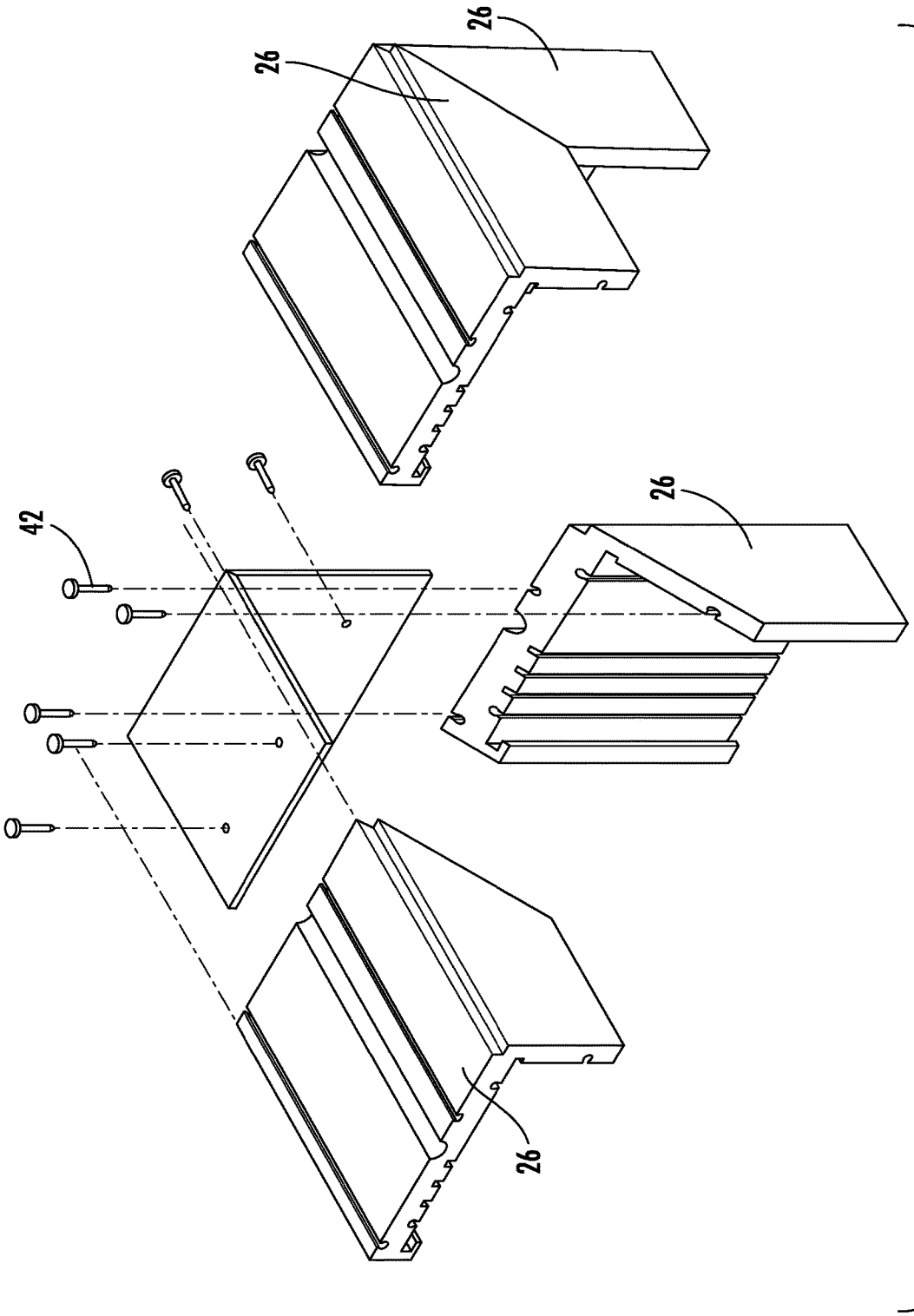

FIG. 2A

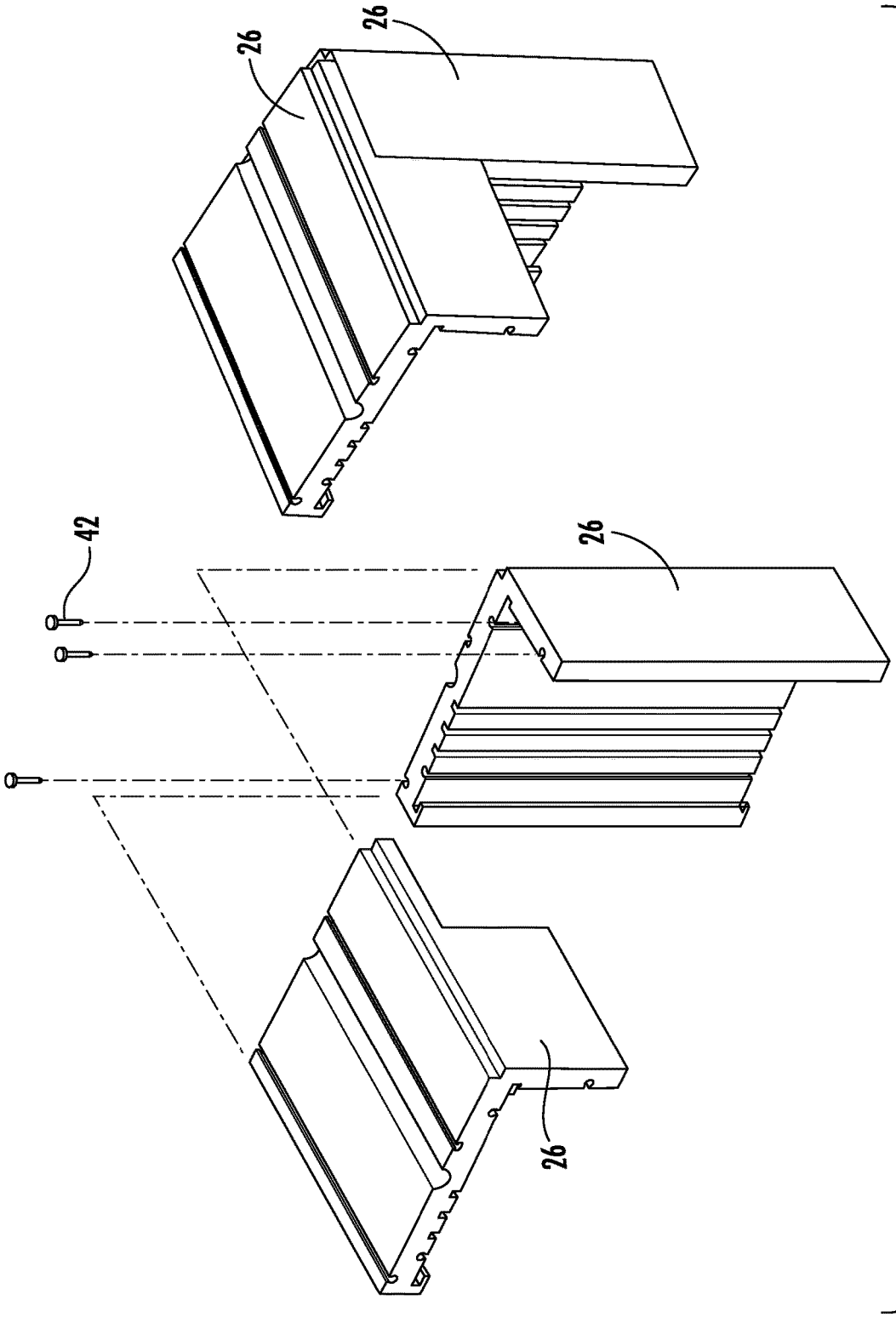

FIG. 2B

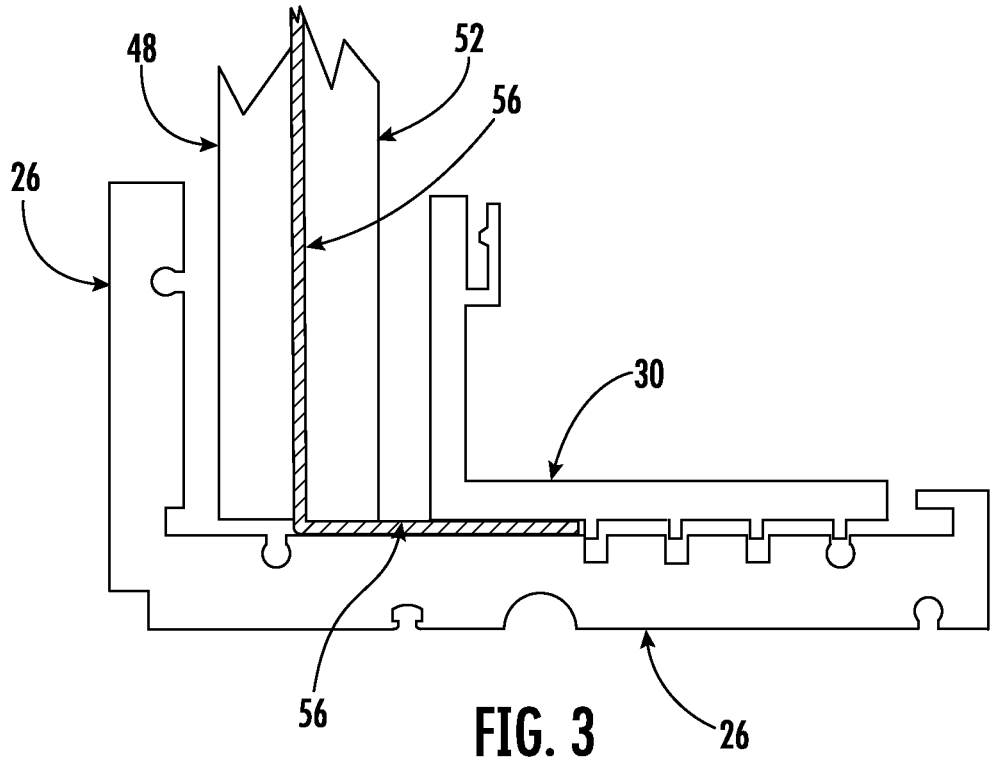
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FIG. 3

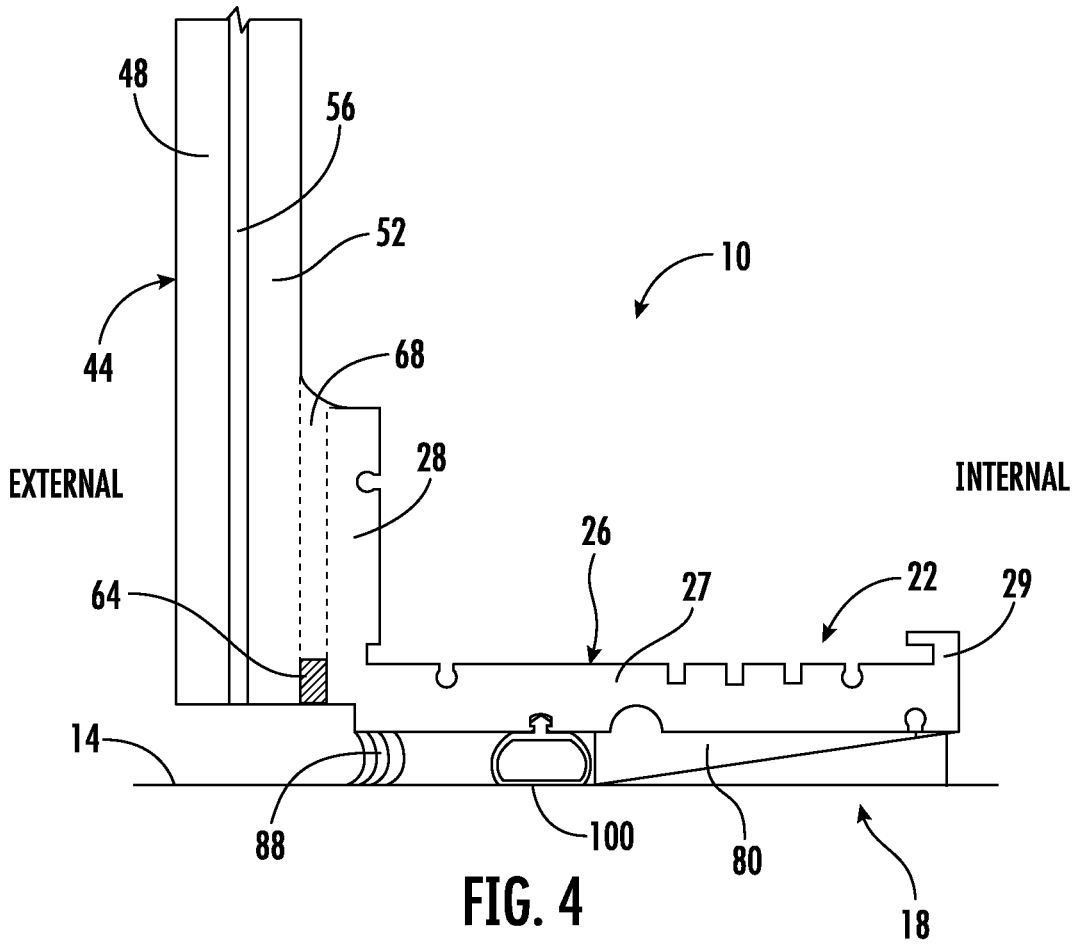
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FIG. 4

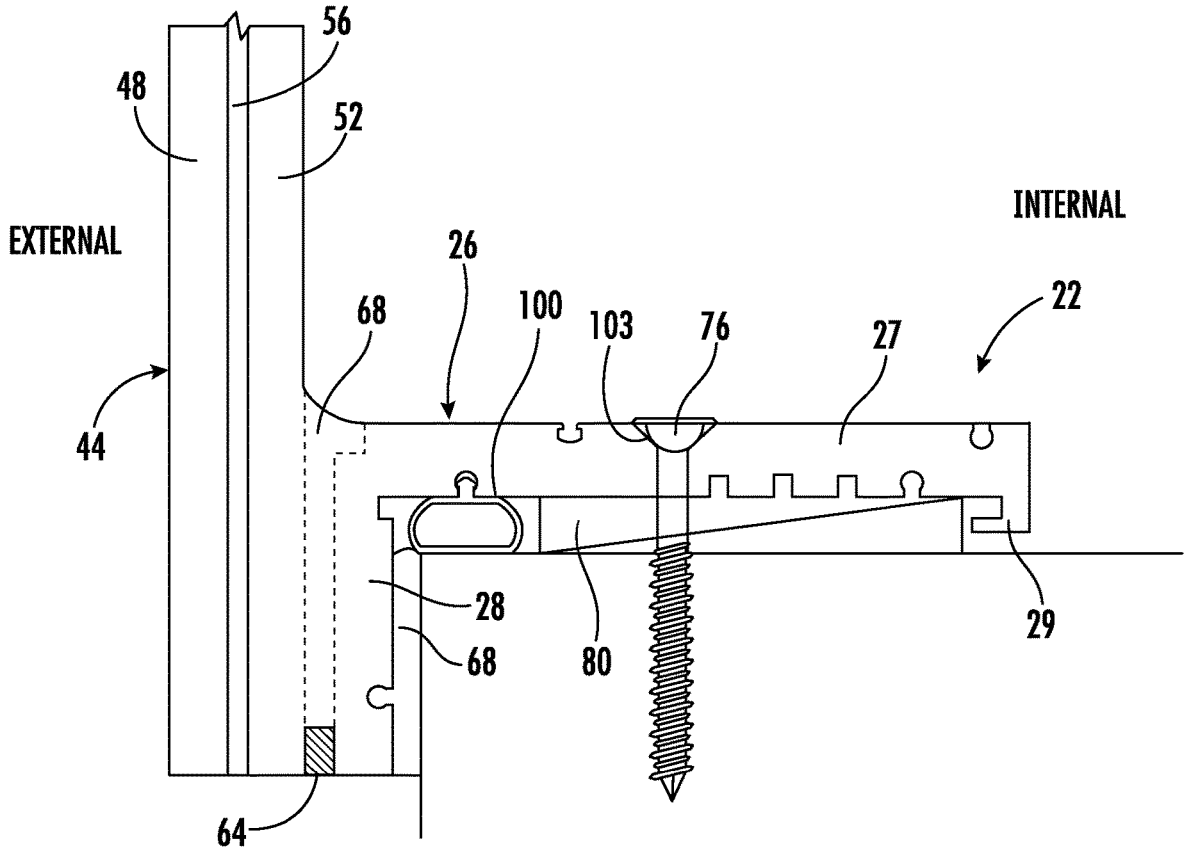
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FIG. 5

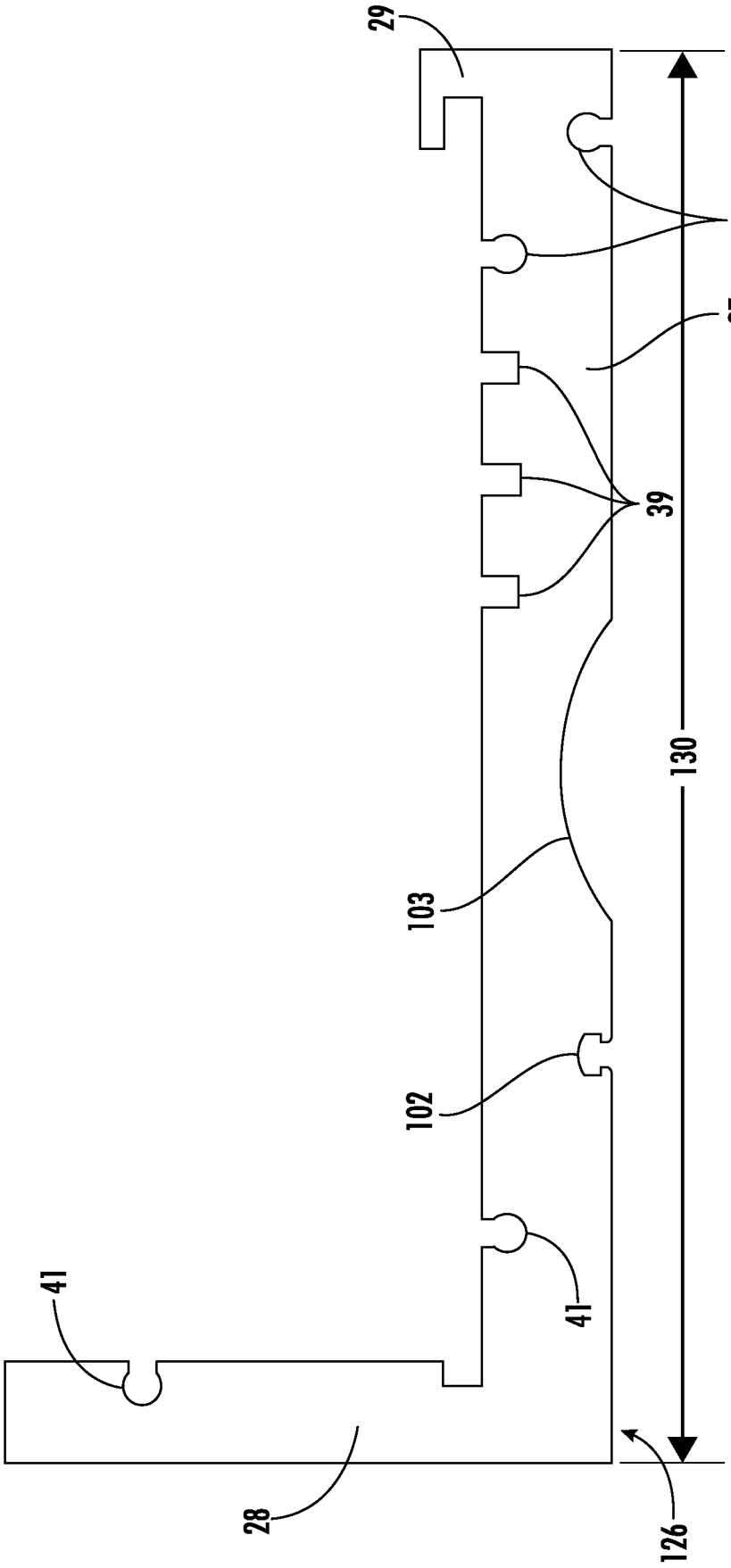

FIG. 6

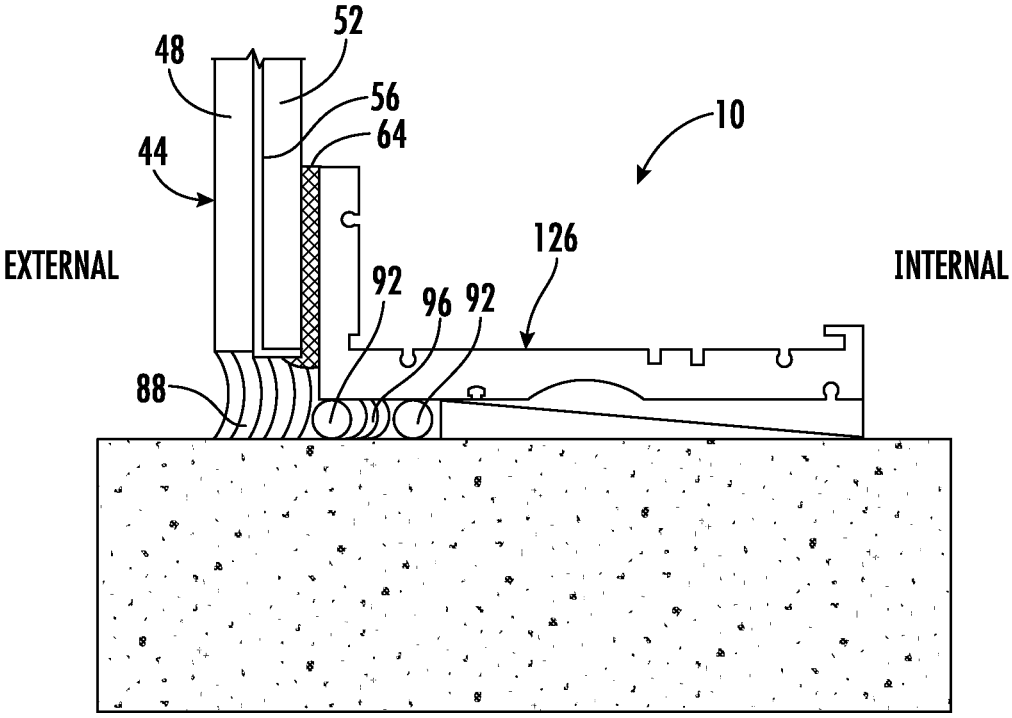
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FIG. 7

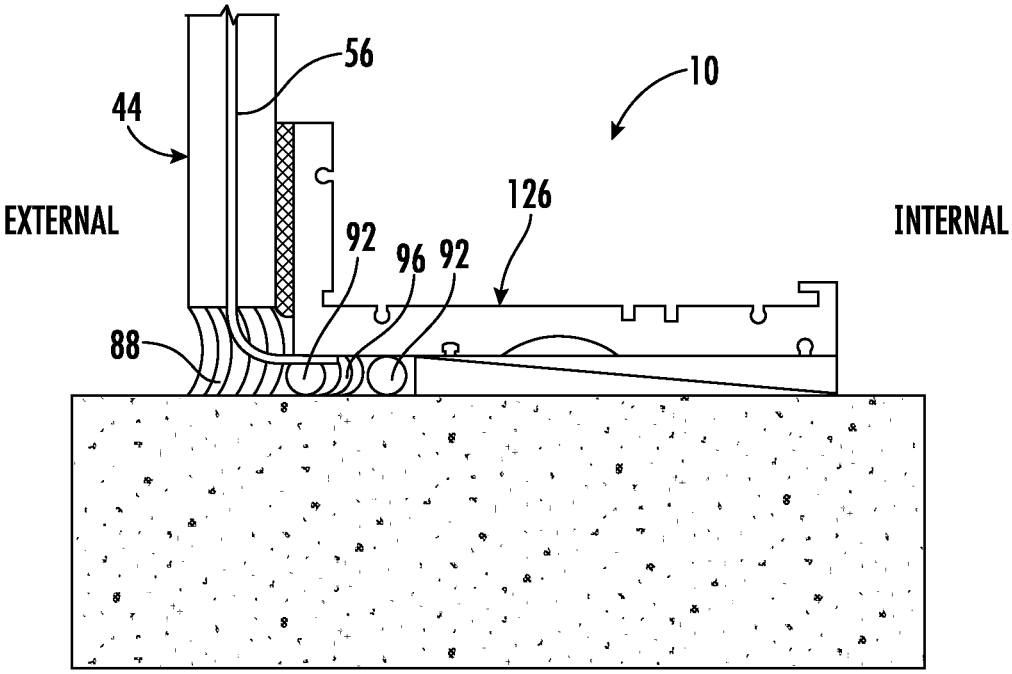
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FIG. 8

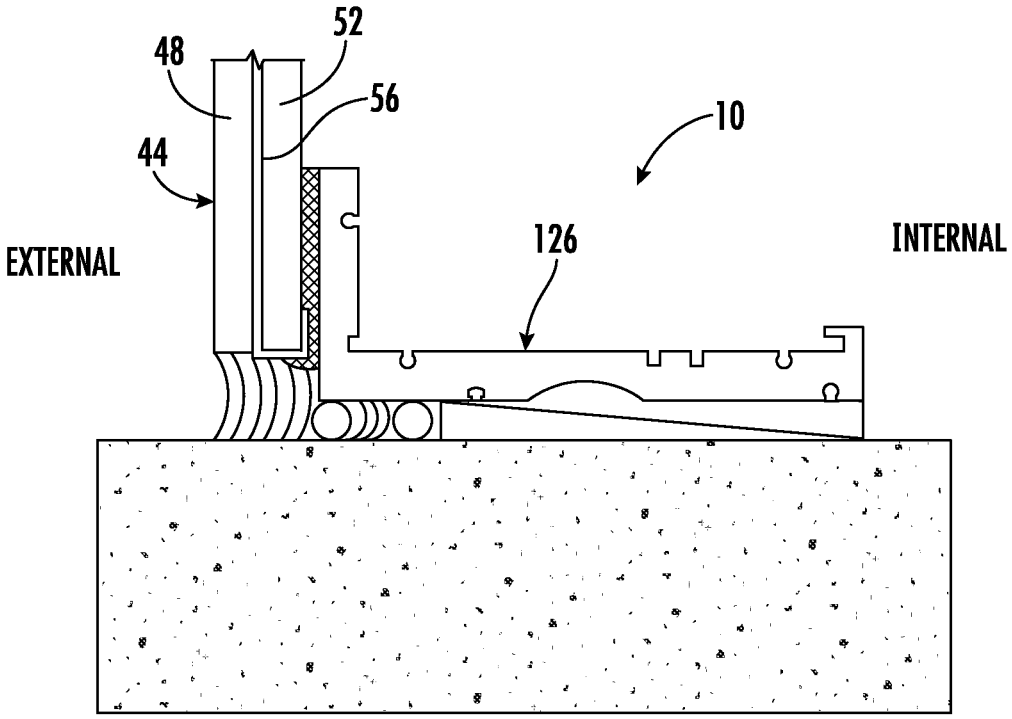
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FIG. 9

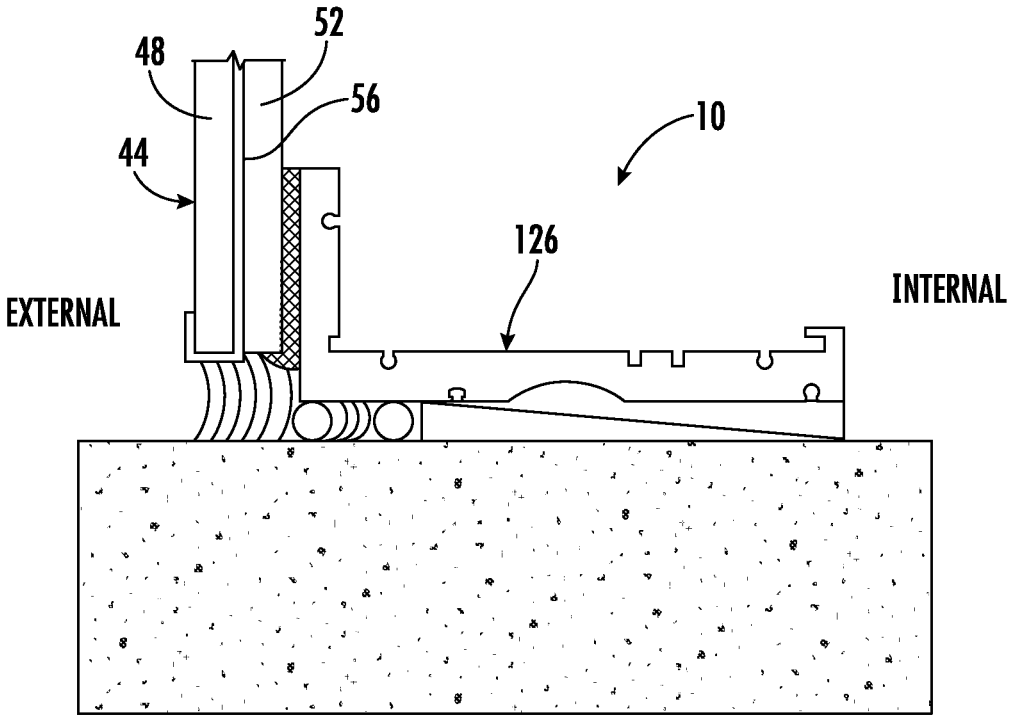
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FIG. 10

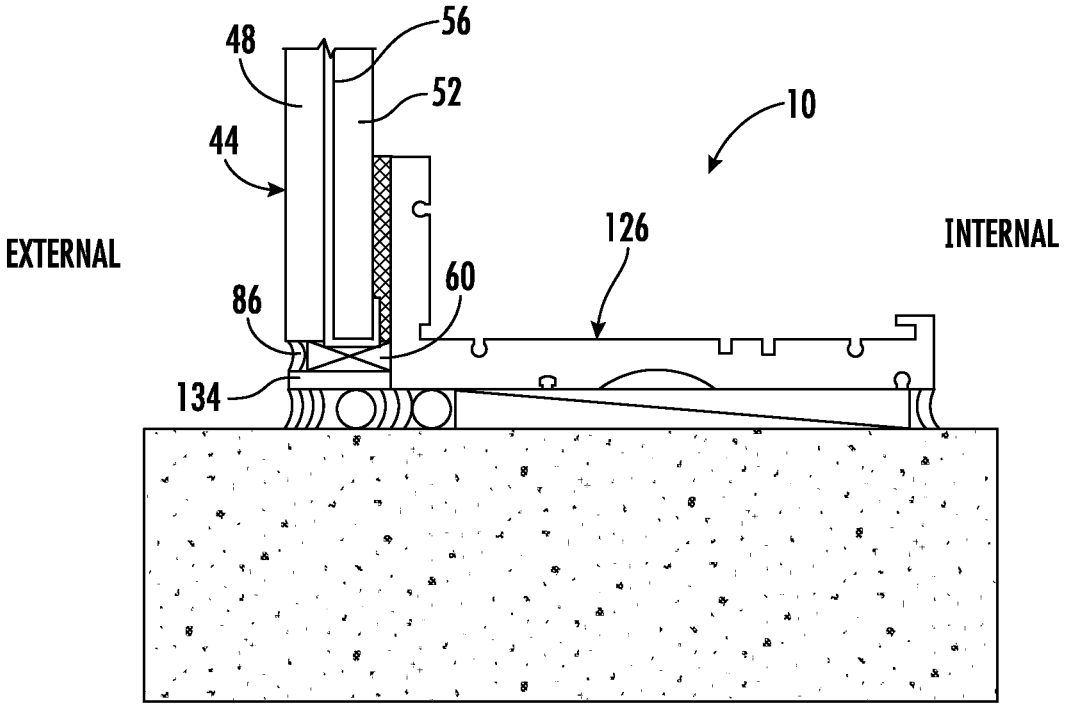
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FIG. 11

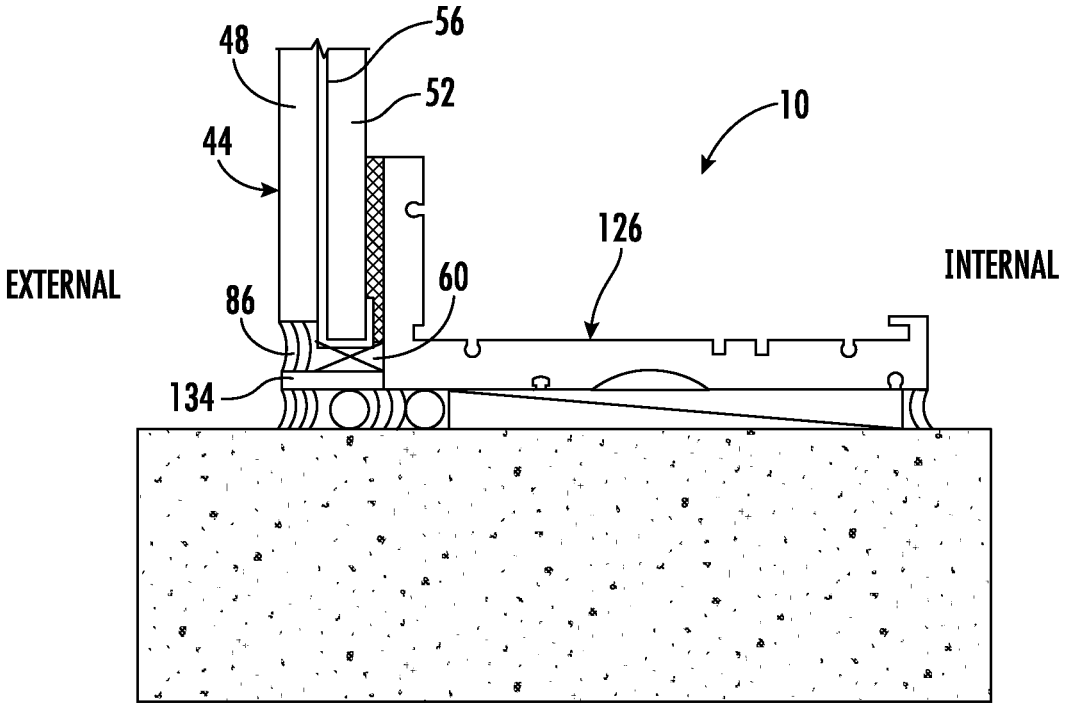
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FIG. 12

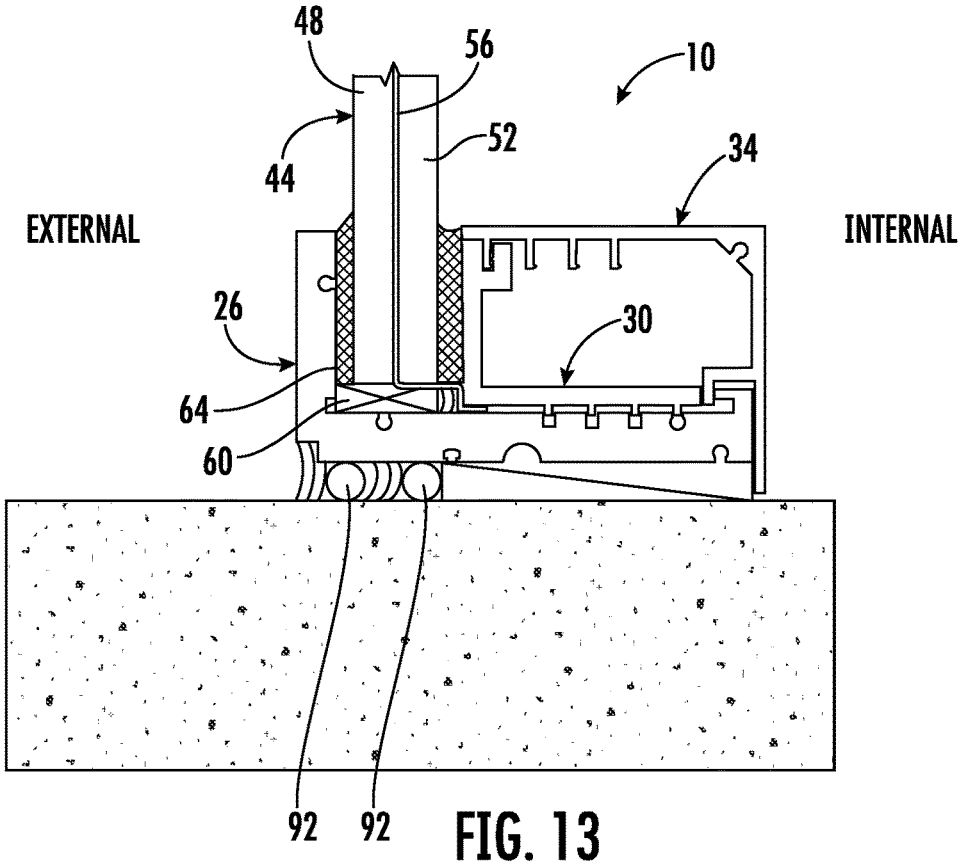
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FIG. 13

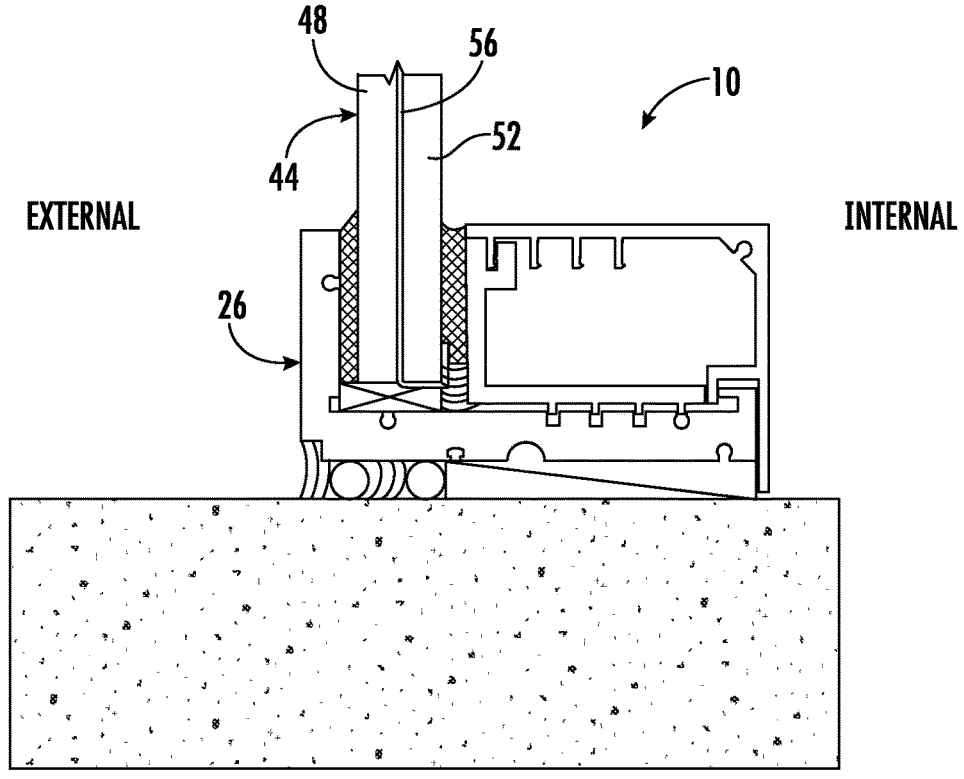
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FIG. 14

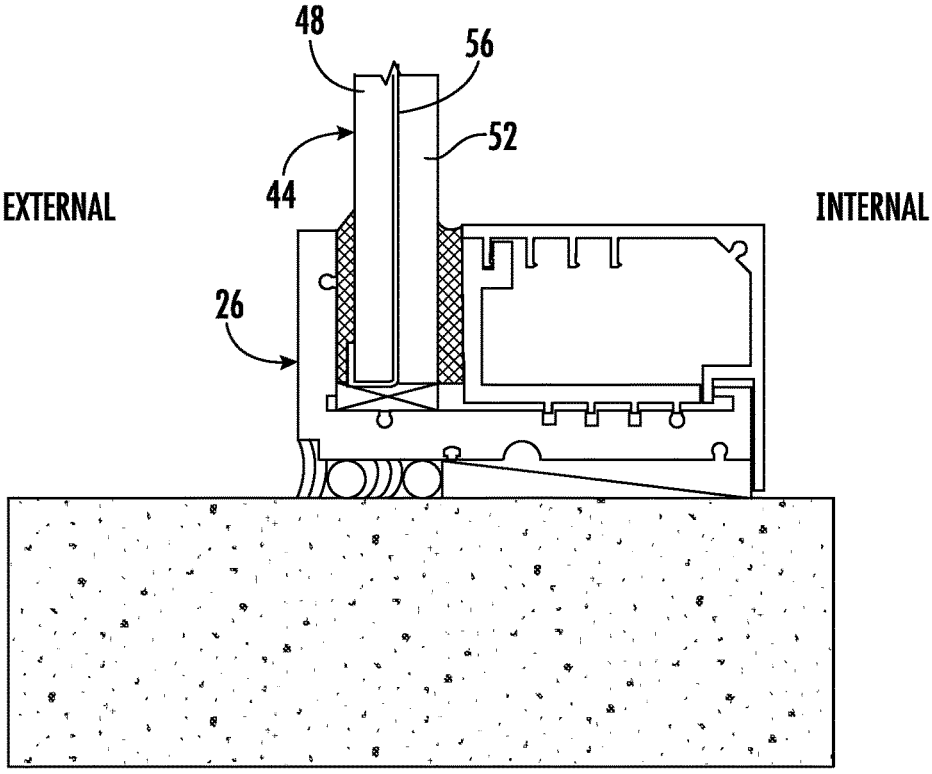
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FIG. 15

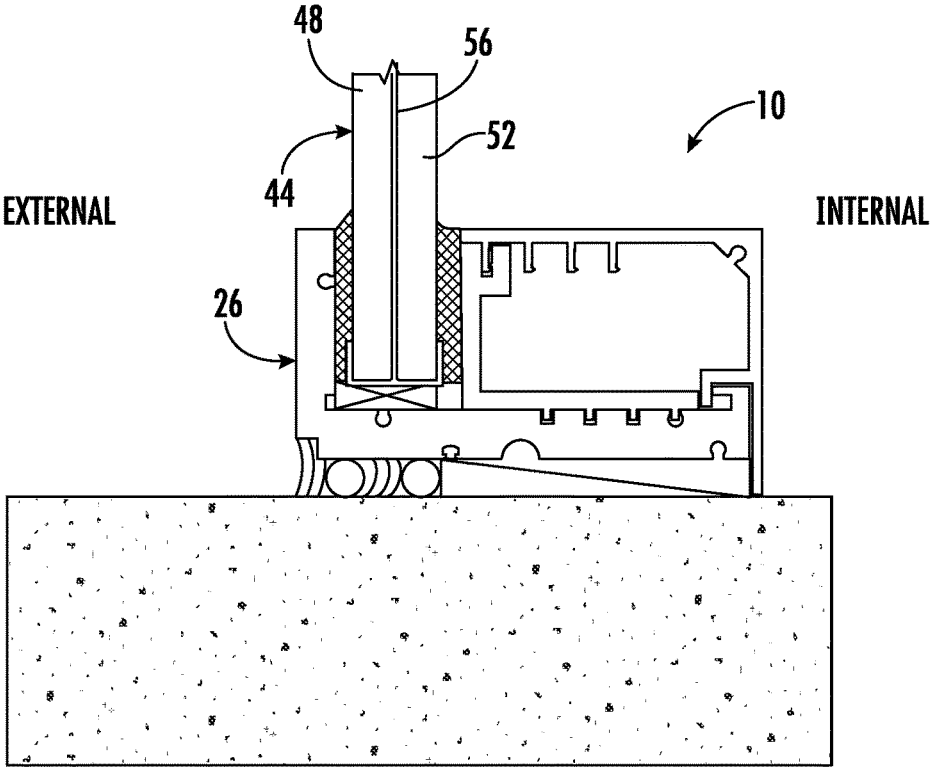
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FIG. 16

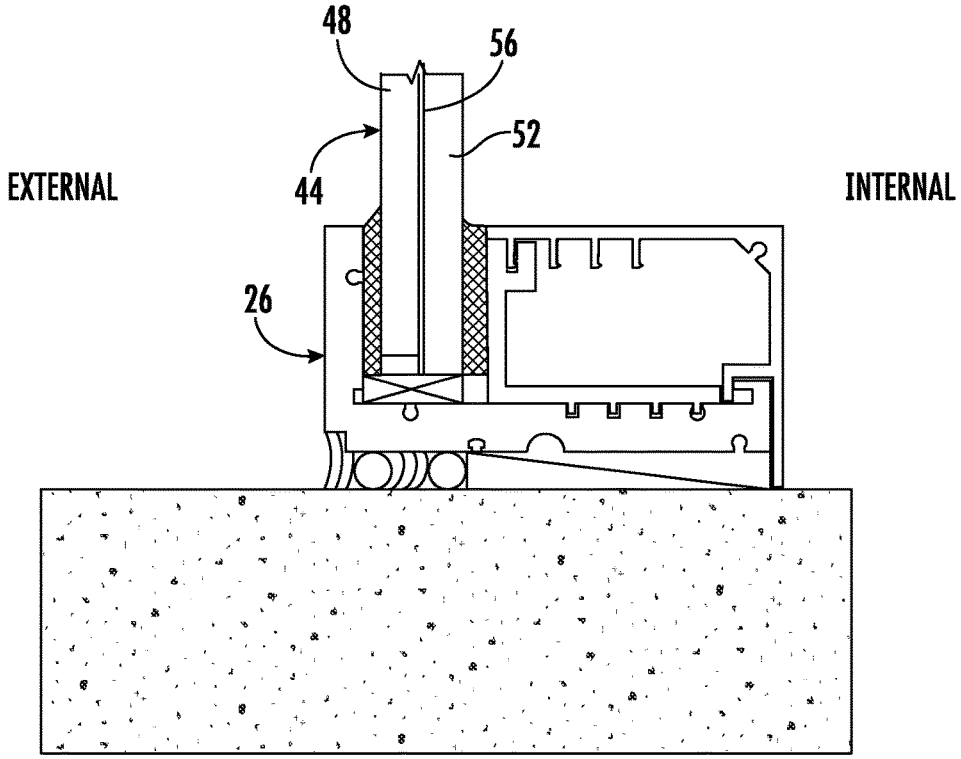
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FIG. 17

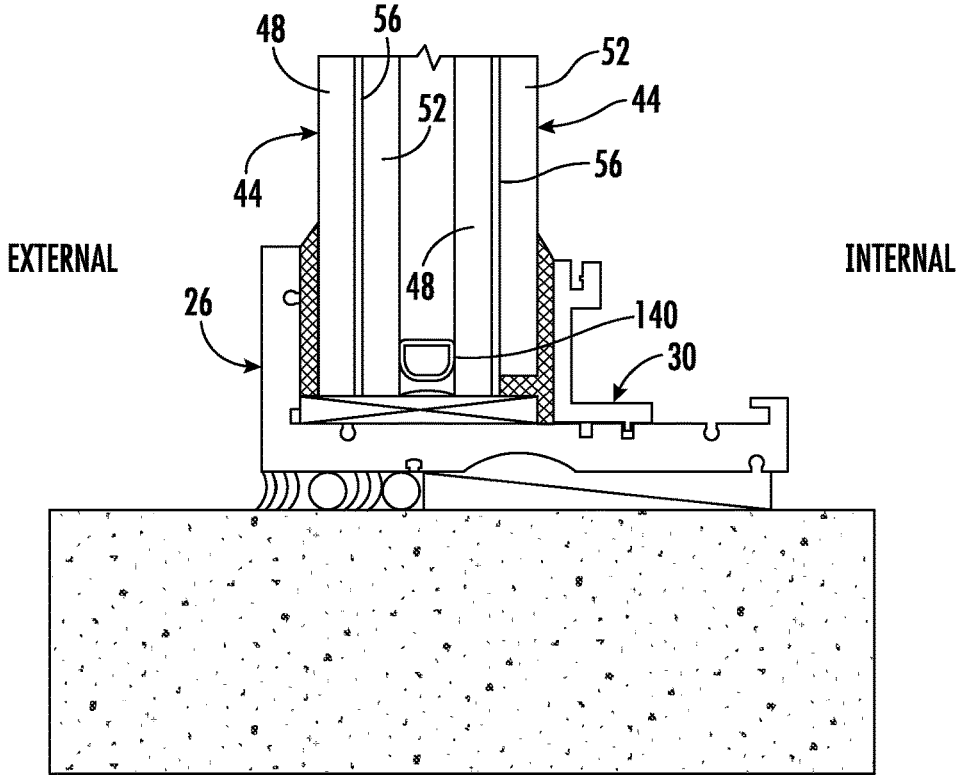
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FIG. 18

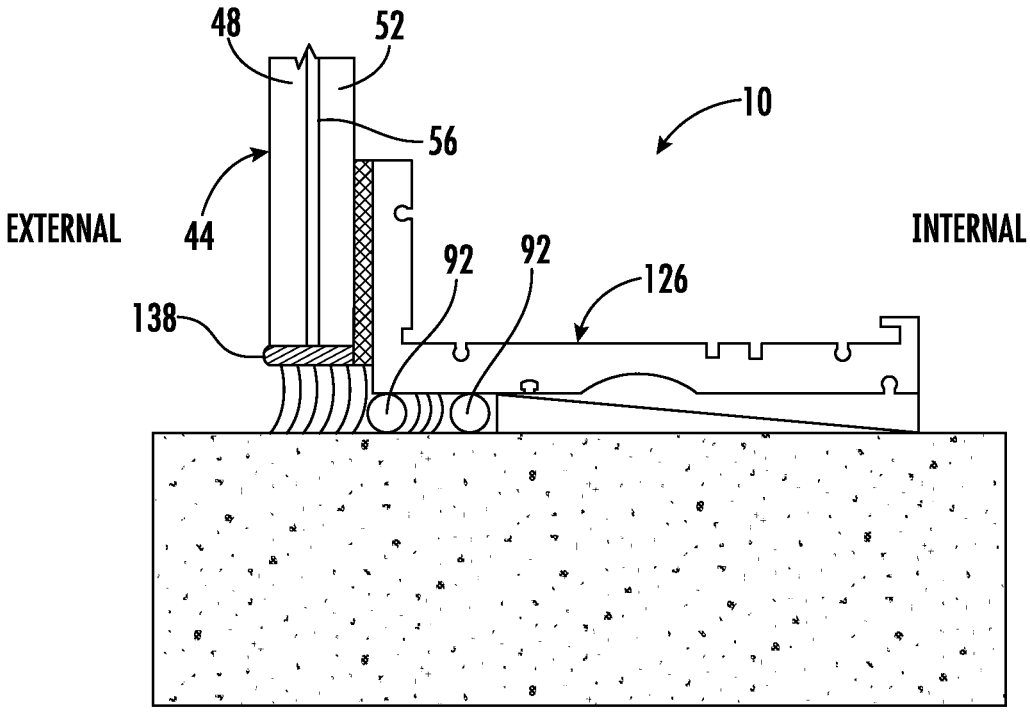

FIG. 19

FLOOD BARRIER WINDOW SYSTEM

CROSS REFERENCE TO RELATED APPLICATION

[0001] This application claims priority to U.S. Provisional Patent Application No. 62/970,477 filed Feb. 5, 2020, the entirety of which is incorporated herein by reference.

TECHNICAL FIELD

[0002] This disclosure relates generally to flood control devices and more particularly to a flood barrier window system.

BACKGROUND

[0003] Traditionally, windows (and even impact windows) are not designed to provide protection against flood events. Furthermore, even when a window can provide some protection against flood events, such traditional windows may be deficient.

SUMMARY

[0004] In one example, a window system includes a window and further includes a frame that can be coupled to an opening in a structure. The frame includes one or more window seats and one or more moveable window stops. The one or more window seats can surround all or a portion of a periphery of the window. The one or more moveable window stops can be moved and coupled to different positions along a depth of the one or more window seats. The window includes a first window portion, a second window portion, and an interlayer positioned in-between the first window portion and the second window portion. The interlayer extends out of the periphery of the window.

[0005] In such an example, the interlayer can extend in-between at least a portion of both the one or more window seats and the one or more moveable window stops. In another such example, the interlayer wraps around at least a portion of the periphery of the second window portion, wraps around a side of the second window portion, and extends vertically along a portion of the side of the second window portion.

[0006] In a second example, a method includes positioning one or more window seats of a frame along all or a portion of a periphery of a window. The window includes a first window portion, a second window portion, and an interlayer positioned in-between the first window portion and the second window portion, and that extends out of the periphery of the window. The method further includes coupling one or more moveable window stops of the frame to the one or more window seats at a position along a depth of the one or more window seats. This position along the depth is based on a thickness of the window. The method also includes inserting the frame and the window into an opening in a structure, and coupling the frame to the opening in the structure.

[0007] In a third example, a window system includes a window and further includes a frame that can be coupled to an opening in a structure. The window includes a first window portion, a second window portion, and an interlayer positioned in-between the first window portion and the second window portion. The interlayer also extends out of the periphery of the window and wraps around at least a portion of the periphery of the second window portion. The frame includes one or more window seats. Also, an exterior-facing surface of each of the one or more window seats can be coupled to an interior-facing surface of the window.

[0008] In a fourth example, a method includes inserting one or more window seats of a frame into an opening in a structure, coupling the frame to the opening in the structure, and coupling an interior-facing surface of a window to an exterior-facing surface of each of the one or more window seats. The window includes a first window portion, a second window portion, and an interlayer positioned in-between the first window portion and the second window portion. The interlayer also extends out of the periphery of the window and wraps around at least a portion of the periphery of the second window portion.

[0009] Certain examples of the disclosure may provide one or more technical advantages. For example, the flood barrier window system may provide a transparent (or semi-transparent) barrier in the structure, while still providing protection against flood events. In some examples, the flood barrier window system may provide protection against a flood event that has a force of up to a load of 10 feet of water or more (e.g., an impact of 4,000 pounds or more).

[0010] Certain examples of the disclosure may include none, some, or all of the above technical advantages. One or more other technical advantages may be readily apparent to one skilled in the art from the figures, descriptions, and claims included herein.

BRIEF DESCRIPTION OF THE FIGURES

[0011] For a more complete understanding of the present disclosure and its features and advantages, reference is now made to the following description, taken in conjunction with the accompanying drawings, in which:

[0012] FIG. **1**A illustrates a perspective view of an example flood barrier window system.

[0013] FIG. **1**B illustrates a cross-sectional view at section **1**B-**1**B of the example flood barrier window system of FIG. **1**A.

[0014] FIG. **1**C illustrates an exploded view of the frame of FIG. **1**B;

[0015] FIGS. **2**A-**2**B illustrate examples of the coupling of two window seats together at a corner of a window of FIG. **1**A.

[0016] FIG. **3** illustrates an example of an interlayer of FIG. **1**B extending out of the periphery of the window and further extending in-between the window stop and the window seat.

[0017] FIG. **4** illustrates a cross-sectional view of another example of a flood barrier window system.

[0018] FIG. **5** illustrates a cross-sectional view of a further example of a flood barrier window system.

[0019] FIG. **6** illustrates a cross-sectional view of another example of a window seat of a flood barrier window system.

[0020] FIGS. **7**-**19** each illustrate a cross-sectional view of a further example of a flood barrier window system.

DETAILED DESCRIPTION

[0021] Examples in the present disclosure are best understood by referring to FIGS. **1**A-**19** of the drawings, like numerals being used for like and corresponding parts of the various drawings.

[0022] FIGS. **1**A-**1**C illustrate an example of a flood barrier window system **10**. The flood barrier window system

10 may be inserted (or otherwise installed) into an opening **14** in a structure **18**, such as an opening in a building, a wall, any other structure, or any combination of the preceding. The flood barrier window system **10** may provide a transparent (or semi-transparent) barrier in the structure **18**. This barrier may provide protection from one or more elements (e.g., wind, rain, cold, heat, etc.), but may also allow a user (or a device) to see through the barrier. As such, the flood barrier window system **10** may provide protection to a user (and/or to the structure **18** itself), while still allowing a user to view the environment outside (and/or inside) the structure **18**.

[0023] In some examples, the flood barrier window system **10** may provide protection against flood events. For example, the flood barrier window system **10** may be able to resist forces caused by flooding fluids (and/or caused by objects, such as debris, included in the flooding fluids). In some examples, the flood barrier window system **10** may provide protection against a flood event that has a force of up to a load of 10 feet of water or more (e.g., an impact of 4,000 pounds or more). This may, in some examples, allow the flood barrier window system **10** to provide protection in areas that are prone to floods (such as in coastal areas and areas below and/or near sea level), while still providing an aesthetically pleasing (and useful) transparent (or semi-transparent) barrier. For example, the flood barrier window system **10** may be used as a sea wall (or as part of a sea wall). As another example, the flood barrier window system **10** may be used in homes and/or offices near the coast, near waterways, or near areas that are prone to floods.

[0024] Traditionally, windows (and even impact windows) are not designed to provide protection against flood events. Furthermore, even the windows that can provide protection against flood events are only capable of providing protection against a flood event that has a force of up to 6 feet of water, at the most. As such, flood protection is traditionally provided by non-transparent materials (such as concrete and/or steel). In contrast to this, the flood barrier window system **10** may, in some examples, provide a transparent (or semi-transparent) barrier that may provide protection against a flood event that has a force of up to a load of 10 feet of water or more (e.g., an impact of 4,000 pounds or more).

[0025] FIG. **1**B illustrates a cross-sectional view at section **1**B-**1**B of the example flood barrier window system **10** of FIG. **1**A. As is illustrated, the flood barrier window system **10** may provide a barrier in-between a location external to the flood barrier window system **10** (e.g., where the external location is on the left side of FIG. **1**B) and a location internal to the flood barrier window system **10** (e.g., where the internal location is on the right side of FIG. **1**B). The internal location may correspond to a location inside of the structure **18**, such a location inside of a building. The external location may correspond to a location outside of the structure **18**, such as a location outside of the building.

[0026] As illustrated in FIG. **1**B, the flood barrier window system **10** includes a frame **22**, a window **44**, and a connection system **72**. The frame **22** may hold the window **44** within the opening **14** of the structure **18**, and may further provide a barrier against one or more elements along a periphery of the window **44**. The window **44** may provide a transparent (or semi-transparent) barrier against one or more elements. The connection system **72** may hold the frame **22** and the window **44** within the opening **14** of the structure **18**, and may further provide a barrier against one or more elements along a periphery of the frame **22** (e.g., it may provide a barrier in the gap in-between the frame **22** and the structure **18**).

[0027] According to the illustrated example, the frame **22** includes a window seat **26**, a window stop **30**, and a cap **34**. The window seat **26** may be a portion of the frame **22** that surrounds all or a portion of the periphery of the window **44**. As such, the window seat **26** may "frame" the outside periphery of the window **44**. In some examples, the window seat **26** may surround all of the periphery of the window **44**. For example, the window **44** may be shaped as a rectangle with four peripheral edges defining the rectangle (i.e., the top edge, the bottom edge, the left-side edge, and the right-side edge). In such an example, the window seat **26** (or a combination of window seats **26**) may surround all of the periphery of the window **44** when the window seat **26** (or a combination of window seats **36**) entirely surrounds each of the top edge, the bottom edge, the left-side edge, and the right-side edge. In other examples, the window seat **26** (or a combination of window seats **26**) may surround only a portion of the periphery of the window **44**. As an example of this, when the window **44** is shaped as a rectangle with four peripheral edges defining the rectangle shape, the window seat **26** (or a combination of window seats **26**) may only partially surround the rectangular shape (e.g., one or more, or a portion of one or more, of the top edge, the bottom edge, the left-side edge, and/or the right-side edge of the window **44** may not be surrounded). As an example of this, the window **44** may be part of a sea wall, where the window seat **26** (or a combination of window seats **26**) may surround the bottom edge, the left-side edge, and the right-side edge of the window **44** (but may not surround the top edge of the window **44**).

[0028] As is illustrated in FIG. **1**B, the window seat **26** may have a seat portion **27** and a support portion **28**. The seat portion **27** may be the portion of the window seat **26** (or a portion of a combination of window seats **26**) that surrounds all or a portion of the periphery of the window **44**. The seat portion **27** may have a depth that extends into depth of the opening **14** of the structure **18** (e.g., in FIG. **1**B, the seat portion **27** extends horizontally into the opening **14** of the structure **18**).

[0029] The seat portion **27** may include an assembly angle chase **29** positioned at a distal end of the seat portion **27** (e.g., positioned at the right-most end of the seat portion **27** in FIG. **1**B). The assembly angle chase **29** may provide a ledge that may catch any water that may enter the frame **22**. This may prevent water from flowing into the structure **18**. As is discussed further below, the assembly angle chase **29** may further assist in coupling the cap **34** to other portions of the frame **22**. As is illustrated, the assembly angle chase **29** may be angular, and may include a vertical portion and a horizontal portion. These portions may create a ledge-like structure that can catch water.

[0030] The support portion **28** of the window seat **26** may be a portion of the window seat **26** that extends outward from the seat portion **27**. As is illustrated in FIG. **1**B, this may allow the support portion **28** to extend past the periphery of the window **44** and cover a portion of the front-side of the window **44**. By covering the front-side of the window **44**, the support portion **28** may provide support to the window **44**, and may prevent the window **44** from moving past the support portion **28**. As such, the support portion **28** may assist in holding the window **44** in place. The support

portion **28** may extend outward from the seat portion **27** by any amount, thereby allowing the support portion **28** to cover any amount of the front-side of the window **44**. The support portion **28** may also extend outward from the seat portion **27** at any angle. As is illustrated in FIG. **1**B, the support portion **28** may extend outward from the seat portion **27** at a 90° angle, causing the support portion **28** to be positioned perpendicular to the seat portion **27**.

[0031] The window seat **26** (and the seat portion **27** and the support portion **28**) may have any size and/or shape. Additionally, the window seat **26** (and the seat portion **27** and the support portion **28**) may be made of any suitable material. As an example, the window seat **26** (and the seat portion **27** and the support portion **28**) may be made of aluminum (e.g., extruded aluminum), steel (e.g., stainless steel), any other suitable material, or any combination of the preceding.

[0032] The frame **22** may further include the window stop **30**. The window stop **30** may be a moveable structure that can assist in holding the window **44** in place. By holding the window **44** in place, the window stop **30** may prevent the window **44** from moving inward into the structure **18** (e.g., it may prevent the window **44** from moving to the right in FIG. **1**B). As a result, the window stop **30** and the support portion **28** may work together, with the window stop **30** preventing the window **44** from moving inward into the structure **18**, and the support portion **28** preventing the window **44** from moving outward out of the opening **14** of the structure **18** (e.g., it may prevent the window **44** from moving to the left in FIG. **1**B).

[0033] As is illustrated in FIG. **1**B, the window stop **30** may have an anchor portion **31** and a stop portion **32**. The anchor portion **31** may be a portion of the window stop **30** that can be coupled to the window seat **26**, so as to hold the window stop **30** in place. This coupling may keep the window stop **30** from moving. To assist in coupling the anchor portion **31** to the window seat **26**, the anchor portion **31** may have one or more teeth **33** that extend outward from the anchor portion **31** towards the window seat **26**. Each of these teeth **33** may be positioned within a corresponding pocket **39** in the seat portion **27** of the window seat **26**. When positioned within the pockets **39**, the teeth **33** may help hold the window stop **30** in place. For example, when the teeth **33** are positioned within the pockets **39**, they may work together to hold the window stop **30** in place during an impact event (e.g., a flood event) that has a force of up to a load of 10 feet of water or more (e.g., an impact of 4,000 pounds or more).

[0034] The stop portion **32** may be a portion of the window stop **30** that extends outward from the anchor portion **31** towards the window **44**. As is illustrated in FIG. **1**B, this may allow the stop portion **32** to extend past the periphery of the window **44** and cover a portion of the back-side of the window **44**. By covering a portion of the back-side of the window **44**, the stop portion **32** may provide support to the window **44**, and may prevent the window **44** from moving past the stop portion **32**. As such, the stop portion **32** may assist in holding the window **44** in place. The stop portion **32** (of the window stop **30**) and the support portion **28** (of the window seat **26**) may work together, with the stop portion **32** preventing the window **44** from moving inward into the structure **18** (e.g., it may prevent the window **44** from moving to the right in FIG. **1**B), and with the support portion **28** preventing the window **44** from moving outward out of the opening **14** of the structure **18** (e.g., it may prevent the window **44** from moving to the left in FIG. **1**B).

[0035] The stop portion **32** may extend outward from the anchor portion **31** by any amount, thereby allowing the stop portion **32** to cover any amount of the back-side of the window **44**. The stop portion **32** may also extend outward from the anchor portion **31** at any angle. As is illustrated in FIG. **1**B, the stop portion **32** may extend outward from the anchor portion **31** at a 90° angle, causing the stop portion **32** to be positioned perpendicular to the anchor portion **31**.

[0036] As is discussed above, the window stop **30** may be a moveable structure that can assist in holding the window **44** in place. This means that the window stop **30** may be moved inward into the opening **14** of the structure (e.g., to the right in FIG. **1**B) and/or outward (e.g., to the left in FIG. **1**B). This may allow the window stop **30** (and the window seat **26**) to hold a window **44** having any thickness. For example, if the window **44** is a thin window, the window stop **30** may be moved outward (e.g., moved to the left in FIG. **1**B) so that it can assist in holding the thinner window in place. Alternatively, if the window **44** is a thick window, the window stop **30** may be moved inward (e.g., moved to the right in FIG. **1**B) so that it can assist in holding the thicker window in place. After the window stop **30** is moved to a particular position (so that it can hold a particular window **44** have a particular thickness), the teeth **33** of the window stop **30** may be positioned within the pockets **39** of the window seat **26**, thereby holding the window stop **30** in place at that position.

[0037] To assist in the movement and positioning of the window stop **30**, the teeth **33** may be evenly spaced from each other (e.g., they may have the same amount of space between each adjacent tooth **33**) and the pockets **39** may also be evenly spaced from each other (e.g., they may have the same amount of space between each adjacent pocket **39**). Furthermore, the spacing between each adjacent tooth **33** and the spacing between each adjacent pocket **39** may be the same. This may allow any of the teeth **33** to be positioned in any of the pockets **39**, which may allow the window stop **30** to be more easily moved inward or outward, as is discussed above. In some examples, one or more of the teeth **33** may be removable (e.g., they may be cut off). In such an example, if the window stop **30** is moved to a position where one or more of the teeth **33** may not fit into a corresponding pocket **39**, the teeth **33** without a corresponding pocket **39** may be removed.

[0038] The movability of the window stop **30** may also include the ability to remove (e.g., cut off) portions of the window stop **30**. For example, if the window stop **30** is moved inward to a position where the distal end of the anchor portion **32** (e.g., the right-most end of the anchor portion **32** in FIG. **1**B) would be blocked (or would collide) with the assembly angle chase **29**, a section of the anchor portion **32** may be removed from the anchor portion **32**. This may allow the window stop **30** to be moved to any position along the window seat **26** without interfering with other portions of the window seat **26**.

[0039] The window stop **30** (and the anchor portion **31** and the stop portion **32**) may have any size and/or shape. Additionally, the window stop **30** (and the anchor portion **31** and the stop portion **32**) may be made of any suitable material. As an example, the window stop **30** (and the anchor portion **31** and the stop portion **32**) may be made of

aluminum (e.g., extruded aluminum), steel (e.g., stainless steel), any other suitable material, or any combination of the preceding.

[0040] The frame **22** may further include the cap **34**. The cap **34** may be an adjustable structure that covers one or more exposed portions of the window seat **26** and the window stop **30**. This covering may prevent dust and debris from falling into or on the window seat **26** and/or into or on the window stop **30**. It may also provide a more aesthetically pleasing look. In some examples, the cap **34** may also cover one or more exposed portions of the connection system **72**. This may prevent the connection system **72** from being interfered with. It may also help prevent the connection system **72** from being accidentally uncoupled or loosened.

[0041] As is illustrated in FIG. **1**B, the cap **34** may have a stop cover portion **35** and a seat cover portion **36**. The stop cover portion **35** may be portion of the cap **34** that may extend over and cover the exposed portions of the window stop **30**. To cover these exposed portions, the stop cover portion **35** may extend inward from the window **44** to a location positioned further inward of the window stop **30** and the window seat **26** (e.g., it may extend towards the right in FIG. **1**B).

[0042] The seat cover portion **36** may be a portion of the cap **34** that may extend over and cover the exposed portions of the window seat **26** and the exposed gap in-between the window seat **26** and the structure **18**. To cover these exposed portions, the seat cover portion **36** may extend outward from stop cover portion **35** towards the periphery of the opening **14** in the structure **18** (e.g., it may extend upwards or downwards in FIG. **1**B). The seat cover portion **36** may extend outward from the stop cover portion **35** by any amount. In some examples, it may extend all the way to the periphery of the opening **14** in the structure **18**, causing it to touch the structure **18** (as is seen in FIG. **1**B). The seat cover portion **36** may also extend outward from the stop cover portion **35** at any angle. As is illustrated in FIG. **1**B, the seat cover portion **36** may extend outward from the stop cover portion **35** at a 90° angle, causing the seat cover portion **36** to be positioned perpendicular to the stop cover portion **35**.

[0043] The cap **34** may be coupled to the window stop **30**, so as to allow the cap **34** to cover the exposed portions of the window stop **30** and the window seat **26**. To couple the cap **34** to the window stop **30**, the stop cover portion **35** may include one or more teeth **37** that extend outward from the stop cover portion **35** towards the window stop **30**. One of these teeth **37** may be positioned within a forked anchor **38** of the window stop **30**. When positioned within the forked anchor **38**, the tooth **37** may hold the cap **34** in place. In some examples, the teeth **37** and the forked anchor **38** may include ridges, as is illustrated in FIG. **1**B. These ridges may help keep the tooth **37** positioned within the forked anchor **38**.

[0044] The cap **34** may also be coupled to the window seat **26**. To couple the cap **34** to the window seat **26**, the seat cover portion **36** may include a protrusion **40**. In operation, the protrusion **40** of the seat cover portion **36** may be positioned against the assembly angle chase **29** included on the window seat **26**. As is illustrated in FIG. **1**B, the protrusion **40** may be an angular protrusion that may allow the protrusion **40** to be positioned against the horizontal portion of the assembly angle chase **29**, and that may further allow the protrusion **40** to extend past the horizontal portion of the assembly angle chase **29** (e.g., extend vertically downward or upward past the horizontal portion of the assembly angle chase **29**) towards the seat portion **27** of the window seat **26**. As is illustrated in FIG. **1**B, this may cause the protrusion **40** to hook around the assembly chase angle **29**, coupling the cap **34** to the window seat **26**. In addition, the protrusion **40** may further be sandwiched in a gap in-between the assembly angle chase **29** and the distal end of the window stop **30**, as is also illustrated in FIG. **1**B. This may provide a further coupling.

[0045] As is discussed above, the cap **34** may be an adjustable structure. This adjustability may assist in allowing the cap **34** to be used with the moveable window stop **30** (discussed above). In some examples, the cap **34** may be adjustable as a result of having more than one tooth **37**. For example, as is seen in FIG. **1**B, the cap **34** has four teeth **37***a-d*. In the illustrated example, the first tooth **37***a* may be positioned within the forked anchor **38** of the window stop **30**, so as to hold the cap **34** in place. However, in other examples, the thickness of the window **44** may result in the window stop **30** being moved inward (moved to the right in FIG. **1**B) so that the window stop **30** can assist in holding the thicker window **44** in place. In such an example, the second tooth **37***b* (or the third tooth **37***c* or the fourth tooth **37***d*) may be positioned within the forked anchor **38** of the window stop **30**, so as to hold the cap **34** in place. That is, as the window stop **30** is moved, the tooth **37** that is used to hold the cap **34** in place, may change. Furthermore, in some examples, each of the teeth **37** may be evenly spaced from each other (e.g., they may have the same amount of space between each adjacent tooth **33**), and this spacing may be the same as (i.e., match) the spacing in-between the teeth **33** of the window stop **30** and the space in-between the pockets **39** of the window seat **26**. As such, if the window stop **30** is moved inward by one tooth **33** and pocket **39**, that movement will result in the forked anchor **38** being positioned at a location that allows the second tooth **37***b* to line up (and be positioned within) the forked anchor **38**.

[0046] Additionally, the adjustability of the cap **34** may also include the ability to remove (e.g., cut off) portions of the stop cover portion **35**. For example, if the second tooth **37***b* is going to be positioned within the forked anchor **38** (instead of the first tooth **37***a*), the first tooth **37***a* (and its corresponding section of the stop cover portion **35**) may be removed from the stop cover portion **35**. This may allow the cap **34** to be used with the frame **22** without interfering with the window **44**, in some examples.

[0047] The cap **34** (and the stop cover portion **35** and the seat cover portion **36**) may have any size and/or shape. Additionally, the cap **34** (and the stop cover portion **35** and the seat cover portion **36**) may be made of any suitable material. As an example, the cap **34** (and the stop cover portion **35** and the seat cover portion **36**) may be made of aluminum (e.g., extruded aluminum), steel (e.g., stainless steel), any other suitable material, or any combination of the preceding.

[0048] The frame **22** may include any number of window seats **26**, window stops **30**, and caps **34**. For example, if the frame **22** is surrounding the entire periphery of a rectangle window **44**, the frame **22** may include four window seats **26**, four window stops **30**, and four caps **34** (with one window seat **26**, one window stop **30**, and one cap **34** for each of the top edge, the bottom edge, the left-side edge, and the right-side edge of the rectangular window **44**). FIGS. **2**A and **2**B illustrate examples of the coupling of two window seats

26 together at a corner of the window **44**. To couple a window seat **26** to another window seat **26** (as is seen in FIGS. **2**A-**2**B), and/or to couple a cap **34** to another cap **34**, the window seat **26** and/or cap **34** may include various connector chases **41**. These connector chases **41** may receive one or more frame connectors **42** (e.g., where a frame connector **42** may be a screw, a bolt, any other connector, or any combination of the preceding), and the frame connectors **42** may couple the window seat **26** to another window seat **26** (or couple a cap **34** to another cap **34**).

[0049] As is illustrated in FIG. **1**B, the flood barrier window system **10** further includes the window **44**. The window **44** may be a transparent (or semi-transparent) barrier. The window **44** may be made of any material(s) that allow it to be a transparent (or semi-transparent) barrier. For example, the window **44** may be made of glass, which may allow a user to view the environment outside (and/or inside) of the structure **18**. Furthermore, although the window **44** may be made of glass, the window **44** may provide protection against a flood event. For example, the window **44** may provide protection against a flood event that has a force of up to a load of 10 feet of water or more (e.g., an impact of 4,000 pounds or more).

[0050] The window **44** may have any shape. For example, the window may be shaped as a square window, a rectangular window, a circular window, an oval window, any other shaped window, or any combination of the preceding. As is illustrated in FIG. **1**A, the window **44** is shaped as a rectangular window **44**. The window **44** may also have any size. For example, the window **44** may have a size of 2×2 feet, 11×20 feet, 12×39 feet, any size in-between 2×2 and 12×39 feet, or any other size.

[0051] The window **44** may include a first window portion **48**, a second window portion **52**, and an interlayer **56** positioned in-between the first window portion **48** and the second window portion **52**. The first window portion **48** and the second window portion **52** may each have the same shape and size as the window **44**, in some examples. In other examples, the first window portion **48** and the second window portion **52** may each have a different shape and/or size. Additionally, the first window portion **48** and the second window portion **52** may each have any thickness. For example, as is illustrated, the first window portion **48** and the second window portion **52** may each be 0.5 inches thick. In some examples, the first window portion **48** and the second window portion **52** may each have the same thickness, and in other examples, the first window portion **48** and the second window portion **52** may each have a different thickness.

[0052] The first window portion **48** and the second window portion **52** may each be made of any material that provides a transparent (or semi-transparent) barrier. For example, the first window portion **48** and the second window portion **52** may each be made of glass. In some examples, the first window portion **48** and the second window portion **52** may each be made of heat strengthened glass. In other examples, the first window portion **48** and the second window portion **52** may each be made of tempered glass.

[0053] The interlayer **56** may bond or laminate the first window portion **48** and/or the second window portion **52** together. This may hold the first window portion **48** and/or the second window portion **52** in place, even if the first window portion **48** and/or the second window portion **52** is broken. The window **44** may include one layer of interlayer **56**, or may include more than one layer of interlayer **56**, such as two layers of interlayer **56**, three layers of interlayer **56**, or any other number of layers. The interlayer **56** may have a high strength that prevents the first window portion **48** and/or the second window portion **52** from breaking up into large sharp pieces, in some examples.

[0054] The interlayer **56** may be made of any material that bonds or laminates the first window portion **48** and/or the second window portion **52** together. For example, the interlayer **56** may be made of polyvinyl butyral (PVB), ethylene-vinyl acetate (EVA), an ionoplast polymer, KEVLAR, any other material that bonds the first window portion **48** and/or the second window portion **52** together, or any combination of the preceding. One example of interlayer **56** is SENTRY-GLAS ionoplast interlayer made by Kuraray America, Inc. Another example of interlayer **57** may include SENTRY-GLAS ionoplast interlayer attached to a KEVLAR membrane. In some examples, the interlayer **56** may be water resistant. In such examples, the interlayer **56** may provide additional protection from water leakages. For example, if one of the first window portion **48** or the second window portion **52** were to break or crack, the interlayer **56** may provide a barrier that prevents the water from leaking through the entirety of the window **44**, in some examples. As such, the interlayer may provide further flood event protection.

[0055] The interlayer **56** may have any shape and/or size. For examples, the interlayer **56** may have any thickness. As is illustrated, the interlayer **56** may have a thickness of 0.180 inches. As another example, the interlayer **56** may have a length and/or width that allows it to cover the entire surface area (or substantially all of the surface area) in-between the first window portion **48** and the second window portion **52**. In other examples, the interlayer **56** may have a length and/or width that is greater than the surface area in-between the first window portion **48** and the second window portion **52**. This may allow the interlayer **56** to extend out of the periphery of the window **44**. In some examples, the interlayer **56** may extend out of the periphery of the window **44** and further extend into the frame **22**. For example, the interlayer **56** may extend out of the periphery of the window **44** and further extend in-between the window stop **30** and the window seat **26**. An example of this is illustrated in FIG. **3**. By extending out of the periphery of the window **44** and extending in-between the window stop **30** and the window seat **26**, the window stop **30** and the window seat **26** may secure the interlayer **56** to the frame **22**, in some examples. Additionally, by extending out of the periphery of the window **44** and extending in-between the window stop **30** and the window seat **26**, the interlayer **56** may provide a water resistant layer in-between the window stop **30** and the window seat **26**, in some examples. This water resistant layer may provide further flood event protection by assisting in water proofing the frame **22**. For example, it may prevent water from leaking inward of the window **44** (e.g., to the left in FIG. **3**).

[0056] When the window **44** is installed in the frame **22** (as is illustrated in FIG. **1**B), the flood barrier window system **10** may include additional components. For example, the flood barrier window system **10** may include a setting block **60**, glazing tape **64**, and sealant **68**.

[0057] The setting block **60** may protect the window **44** from impact and/or may provide stress relief as the window **44** expands and contracts with changing temperatures. The

setting block **60** may be positioned in-between the periphery of the window **44** and the window seat **26**, as is illustrated in FIG. **1**B.

[0058] The glazing tape **64** may create a seal in-between the setting block **60**, the window **44**, and the window seat **26**. This seal may prevent wind and/or water from moving past the glazing tape **64** and further into the frame **22**.

[0059] The sealant **68** may provide an additional seal for the window **44** and frame **22**, so as to prevent wind and/or water from entering the frame **22**. The sealant **86** may also help hold the window **44** in place in-between the window seat **26** and the window stop **30**. The sealant **68** may be applied in-between the support portion **28** (of the window seat **26**) and the first window portion **48** (as is illustrated in FIG. **1**B), and/or may be applied in-between the stop portion **32** (of the window stop **30**) and the second window portion **52** (as is also illustrated in FIG. **1**B). The sealant **68** may be a silicone sealant. One example of sealant **68** is SPECTREM 2 by Tremco Inc. As is illustrated, when the sealant **86** is applied, it may flow into one or more unused connector chases **41**. As such, the sealant **86** and connector chase **41** may work together to further hold the window **44** in place in-between the window seat **26** and the window stop **30**, in some examples.

[0060] As is also illustrated in FIG. **1**B, the flood barrier window system **10** further includes the connection system **72**. The connection system **72** may hold the frame **22** and the window **44** within the opening **14** of the structure **18**, and may further provide a barrier against one or more elements along a periphery of the frame **22** (e.g., it may provide a barrier in the gap in-between the frame **22** and the structure **18**).

[0061] The connection system **72** may include connectors **76** that hold the frame **22** and the window **44** within the opening **14** of the structure **18**. The connector **76** may be a screw, a bolt, any other connector that holds the frame **22** and the window **44** within the opening **14** of the structure **18**, or any combination of the preceding. As is illustrated, the connectors **76** are screws. The screws may be positioned (or screwed) through the window stop **30**, through the window seat **26**, and into the structure **18** (e.g., into a C7 steel channel in the building). As such, the screws may secure the frame **22** (e.g., the window stop **30**, the window seat **26**, and any other portion of the frame **22**) and the window **44** to the structure **18**. Any number of connectors **76** may be used to hold the frame **22** and the window **44** within the opening **14** of the structure **18**. Furthermore, as is illustrated, the cap **34** may cover the exposed portions of the connectors **76**, which may help prevent them from being accidentally loosened and/or dislodged.

[0062] The connection system **72** may further include shims **80**. The shim **80** may wedge the frame **22** and window **44** in place within the framing of the opening **14** of the structure **18**. The shim **80** may have any size. For example, the shim **80** may have a size of ⅜ inches to ½ inches. The shim **80** may be made of wood, plastic, metal, any other suitable material, or any combination of the preceding. Any number of shims **80** may be used to wedge the frame **22** and window **44** in place within the framing of the opening **14** of the structure **18**.

[0063] The connection system **72** may further include a water sealant system **84** that may prevent water (or reduce the amount of water) that may enter the gap in-between the frame **22** and the structure **18**. As is illustrated, the water sealant system **84** may include a first level of sealant **88** applied in a location outward (e.g., to the left in FIG. **1**B) of a backer rod **92**. The first level of sealant **88** may be any type of sealant. For example, the first level of sealant **88** may be a silicone sealant. One example of the first level of sealant **88** is SPECTREM 2 by Tremco Inc. The backer rod **92** may be a structure that creates a back stop for sealant. For example, in FIG. **1**B, the backer rod **92** creates a back stop for the first level of sealant **88**. The backer rod **92** may have any shape (e.g., round, cylinder), and may be made of any material (e.g., foam).

[0064] The water sealant system **84** may further include a second level of sealant **96** applied in a location inward (e.g., to the right in FIG. **1**B) of the backer rod **92**. The second level of sealant **96** may be any type of sealant. For example, the second level of sealant **96** may be a silicone sealant. One example of the second level of sealant **96** is SPECTREM 2 by Tremco Inc. Traditionally, a sealant is not applied in a location inward of a backer rod. The reason for this is that sealants are susceptible to failure due to three point adhesion. A backer rod is traditionally used inward of the sealant so as to prevent this three point adhesion. In contrast to this, the water sealant system **84** may include a gasket **100** positioned in a location inward (e.g., to the right in FIG. **1**B) of the second level of sealant **96**. This gasket **100** may, in some examples, prevent three point adhesion in the second level of sealant **96**. As such, unlike traditional systems, the water sealant system **84** can include two levels of sealant, as opposed to just one. This additional level of sealant may provide further water protection by further preventing water (or further reducing the amount of water) that may enter the gap in-between the frame **22** and the structure **18**.

[0065] The water sealant system **84** may further include the gasket **100**. The gasket **100** may provide an additional seal within the gap in-between the frame **22** and the structure **18**. Additionally, it may also prevent three point adhesion from occurring in the second level of sealant **96**. The gasket **100** may have any shape and/or size. As is illustrated, the gasket **100** may be originally shaped as a ball (or have a circular or spherical shape). When the frame **22** and the window **44** are installed in the opening **14** in the structure **18**, the ball shape of the gasket **100** may be squished in-between the structure **18** and the frame **22**, changing the shape of the gasket **100** (as is seen in FIG. **1**B). This may seal off the gap in-between the frame **22** and the structure **18**, which may create the additional seal.

[0066] The shape of the gasket **100** may, in some examples, assist in the installation of the gasket **100**. For example, the gasket **100** may include a nodule **101** that may extend out of the gasket **100**. This nodule **101** may be positioned within a gasket pocket **102** included in the window seat **26**. When the nodule **101** is positioned within the gasket pocket **102**, the gasket **100** may be coupled to the window seat **26**, allowing for the gasket **100** to remain in place when the frame **22** is positioned within the opening **14** of the structure **18**.

[0067] The gasket **100** may be made of any material that may allow it to provide an additional seal within the gap in-between the frame **22** and the structure **18**, and that may further allow it to prevent three point adhesion from occurring in the second level of sealant **96**. As one example of this, the gasket **100** may be made of silicone.

[0068] As is discussed above, the water sealant system **84** may include (1) the first level of sealant **88**, (2) the second

level of sealant **96**, and (3) the gasket **100**. This combination provides three separate levels of protection against water (and other elements). Traditionally, window systems may only include a single level of protection against water, such as only a single level of sealant. In contrast, the flood barrier window system **10** (and the water sealant system **84**) may include three levels of protection against water (and other elements). This use of three levels (as opposed to just one) may provide better protection during a flood event.

[0069] Furthermore, in some examples, the gasket **100** may be replaced with an additional gasket rod **92**. That is, the water sealant system **84** may include a first backer rod **92** and a second backer rod **92**, and may further include the first level of sealant **88** positioned in a location outward (e.g., to the left in FIG. **1**B) of the first backer rod **92**, and the second level of sealant **96** positioned in a location inward (e.g., to the right in FIG. **1**B) of the first backer rod **92** and further positioned in a location outward (e.g., to the left in FIG. **1**B) of the second backer rod **92**. An example of this is illustrated in FIGS. **7-19**. In other examples, the gasket **100** may be replaced with a foam structure, such as EXOAIR Flex Foam by Tremco Inc.

[0070] FIG. **4** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **4** (and its components) may be substantially similar to flood barrier window system **10** of FIGS. **1**A-C (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **4** may not include the window stop **30** or the cap **34**. Instead, in the example of FIG. **4**, an interior-facing surface (e.g., facing towards the right in FIG. **4**) of the window **44** may be coupled to an exterior-facing surface (e.g., facing towards the left in FIG. **4**) of the support portion **28** of the window seat **26**. Additionally, although the flood barrier window system **10** of FIG. **4** is illustrated as not including connectors **76**, the flood barrier window system **10** of FIG. **4** may include such connectors **76** to hold the frame **22** (and the window **44**) within the opening **14** of the structure **18**.

[0071] FIG. **5** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **5** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **4** (and its components). However, as is illustrated, the window seat **26** of FIG. **5** may be installed in a configuration that is a mirror image of that in FIG. **4**. Furthermore, in this configuration, the window seat **26** may include a depression **103** that may be used as a countersink for the connectors **76**. In other configurations (such as those in FIGS. **1**A-**1**C and FIG. **4**), this depression **103** may be used as spacing for the backer rod **92**.

[0072] FIG. **6** illustrates a cross-sectional view of another example of a window seat **126** of a flood barrier window system **10**. The window seat **126** of FIG. **6** may be substantially similar to the window seat **26** discussed above. However, the window seat **126** (and the seat portion **27** and the support portion **28**) may have a different size than the window seat **26** described above, in some examples. For example, the window seat **126** may have a larger length **130**. As one example of this, the window seat **126** may have a length **130** of 7 inches, while the window seat **26** may have a length **130** of 6 inches. Furthermore, the window seat **126** may not include a notch (in the front portion of the length **130**) that is included in window seat **26**. Additionally, the window seat **126** may have a larger depression **103**. The window seat **126** of FIG. **6** may be utilized in any of the examples described herein (instead of window seat **26**). Alternatively, the window seat **26** may be utilized in any of the examples below (instead of window seat **126**).

[0073] FIG. **7** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **7** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **4** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **7** includes an interlayer **56** that extends out of the periphery of the window **44** and wraps around all (or a portion) of the periphery of second window portion **52**. In some examples, by wrapping around all (or a portion) of the periphery of the second window portion **52**, the interlayer **56** may provide an additional water barrier along the periphery of the second window portion **52**, which may prevent (or help reduce) water from leaking above and/or below this periphery. The interlayer **56** may be coupled to the periphery of second window portion **52** using any adhesive (e.g., glue). As is also illustrated in FIG. **7**, the flood barrier window system **10** includes window seat **126**, further includes two breaker rods **92** (as is discussed above), and also includes glazing tape **64** in-between the second window portion **52** and the window seat **126**.

[0074] FIG. **8** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **8** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **7** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **8** includes an interlayer **56** that extends out of the periphery of the window **44** and extends underneath the bottom of window seat **126** (i.e., it extends in-between the window seat **126** and the structure **18**). In some examples, by extending underneath the bottom of window seat **126**, the interlayer **56** may provide an additional water barrier that extends from the window **44** to the window seat **126**, which may prevent (or help reduce) water from leaking above and/or below this area. The interlayer **56** may be coupled to the bottom of the window seat **126** using any adhesive (e.g., glue).

[0075] FIG. **9** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **9** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **7** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **9** includes an interlayer **56** that extends out of the periphery of the window **44**, wraps around all (or a portion) of the periphery of second window portion **52**, further wraps around the back-side of the second window portion **52**, and extends vertically (e.g., upward) along a portion of the back-side of the second window portion **52**. In some examples, this may allow the interlayer **56** to provide an additional water barrier along these areas, which may prevent (or help reduce) water from leaking above and/or below these areas. The interlayer **56** may be coupled to the periphery of the second window portion **52** and the portion of the back-side of the second window portion **52** using any adhesive (e.g., glue).

[0076] FIG. **10** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **10** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **7** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **10** includes an interlayer **56** that extends out of the periphery of the window **44**, wraps around

all (or a portion) of the periphery of the first window portion **48**, further wraps around the front-side of the first window portion **48**, and extends vertically (e.g., upward) along a portion of the front-side of the first window portion **48**. In some examples, this may allow the interlayer **56** to provide an additional water barrier along these areas, which may prevent (or help reduce) water from leaking above and/or below these areas. The interlayer **56** may be coupled to the periphery of the first window portion **48** and the portion of the front-side of the first window portion **48** using any adhesive (e.g., glue).

[0077] FIG. **11** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **11** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **9** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **11** includes a shelf **134** coupled to the window seat **126**. The shelf **134** is a structure (e.g., aluminum structure) that may provide additional support for heavier windows **44**, in some examples. The shelf **134** may be coupled to the window seat **126** in any manner (e.g., welding). The flood barrier window system **10** of FIG. **11** further includes a setting block **60** that may protect the window **44** from impact and/or may provide stress relief as the window **44** expands and contracts with changing temperatures. The flood barrier window system **10** of FIG. **11** may also include additional sealant **86** in-between the shelf **134** and the window **44**.

[0078] FIG. **12** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **12** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **11** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **12** includes a window **44** having a first window portion **48** that is shorter in length than a second window portion **52**. This may result in an extended interlayer **56**, in some examples. The first window portion **48** may be shorter in length by any amount.

[0079] FIG. **13** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **13** (and its components) may be substantially similar to flood barrier window system **10** of FIGS. **1**A-C and **3** (and its components). For example, as is illustrated, the interlayer **56** extends out of the periphery of the window **44** and further extends in-between the window stop **30** and the window seat **26**. In some examples, this may allow the interlayer **56** to provide an additional water barrier along these areas, which may prevent (or help reduce) water from leaking above and/or below these areas. However, unlike FIG. **3**, the flood barrier window system **10** of FIG. **13** includes a setting block **60** (as is discussed above), and further includes two breaker rods **92** (as is also discussed above).

[0080] FIG. **14** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **14** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **13** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **14** includes an interlayer **56** that extends out of the periphery of the window **44**, wraps around all (or a portion) of the periphery of the second window portion **52**, further wraps around the back-side of the second window portion **52**, and extends vertically (e.g., upward) along a portion of the back-side of the second window portion **52**. In some examples, this may allow the interlayer **56** to provide an additional water barrier along these areas, which may prevent (or help reduce) water from leaking above and/or below these areas. The interlayer **56** may be coupled to the periphery of the second window portion **52** and the portion of the back-side of the second window portion **52** using any adhesive (e.g., glue).

[0081] FIG. **15** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **15** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **13** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **15** includes an interlayer **56** that extends out of the periphery of the window **44**, wraps around all (or a portion) of the periphery of the first window portion **48**, further wraps around the front-side of the first window portion **48**, and extends vertically (e.g., upward) along a portion of the front-side of the first window portion **48**. In some examples, this may allow the interlayer **56** to provide an additional water barrier along these areas, which may prevent (or help reduce) water from leaking above and/or below these areas. The interlayer **56** may be coupled to the periphery of the first window portion **48** and the portion of the front-side of the first window portion **48** using any adhesive (e.g., glue).

[0082] FIG. **16** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **16** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **13** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **16** includes an interlayer **56** with two portions that extend out of the periphery of the window **44**. The first portion of the interlayer **56** wraps around all (or a portion) of the periphery of the first window portion **48**, further wraps around the front-side of the first window portion **48**, and extends vertically (e.g., upward) along a portion of the front-side of the first window portion **48**. The second portion of the interlayer **56** wraps around all (or a portion) of the periphery of the second window portion **52**, further wraps around the back-side of the second window portion **52**, and extends vertically (e.g., upward) along a portion of the back-side of the second window portion **52**. In some examples, this may allow the interlayer **56** to provide an additional water barrier along these areas, which may prevent (or help reduce) water from leaking above and/or below these areas. The first and second portions of the interlayer **56** may be coupled to the periphery of the first window portion **48**, the portion of the front-side of the first window portion **48**, the periphery of the second window portion **52**, and the portion of the back-side of the second window portion **52** using any adhesive (e.g., glue).

[0083] FIG. **17** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **17** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **13** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **17** includes a window **44** having a first window portion **48** that is shorter in length than a second window portion **52**. This may result in an extended interlayer **56**, in some examples. The first window portion **48** may be shorter in length by any amount. Furthermore, as is also illustrated, the interlayer **56** may extend out of the periphery of the first window portion **48**, but may not extend out of the periphery of the second window portion **52**. In other examples, the interlayer **56** may extend out of the

periphery of both the first window portion **48** and the second window portion **52** (such as in the examples discussed above).

[0084] FIG. **18** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **18** (and its components) may be substantially similar to flood barrier window system **10** of FIGS. **1**A-**1**C (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **17** includes two windows **44** positioned next to each other, with a spacer **140** positioned in-between the windows **44**. The spacer **140** may be any structure that keeps the windows **44** separated. The spacer **140** may be made of any suitable material, such as plastic or aluminum. As is also illustrated, the second window **44** (e.g., the interior window **44** in FIG. **18**) includes a second window portion **52** that is shorter in length than a first window portion **48**. This may result in an extended interlayer **56**, in some examples. The second window portion **52** may be shorter in length by any amount.

[0085] FIG. **19** illustrates another example of a flood barrier window system **10**. Flood barrier window system **10** of FIG. **19** (and its components) may be substantially similar to flood barrier window system **10** of FIG. **4** (and its components). However, as is illustrated, the flood barrier window system **10** of FIG. **19** includes an extruded seal **138** that is coupled to all (or a portion) of the periphery of the window **44**. The extruded seal **138** may be a silicone sealant. One example of the extruded seal **138** is SPECTREM 1 by Tremco Inc. In some examples, the extruded seal **138** may provide an additional water barrier along the periphery of the window **44**, which may prevent (or help reduce) water from leaking above and/or below this periphery. The extruded seal **138** may be coupled to the periphery of all (or a portion) of the window **44** using any adhesive (e.g., glue). As is also illustrated in FIG. **19**, the flood barrier window system **10** includes the window seat **126**, further includes two breaker rods **92** (as is discussed above), and also includes glazing tape **64** in-between the second window portion **52** and the window seat **126**.

[0086] Modifications, additions, or omissions may be made to the flood barrier window system **10** of each of (or one or more of) FIGS. **1**A-**19** without departing from the scope of the disclosure. For example, although the flood barrier window system **10** has been described above as including cap(s) **34**, in other examples, the flood barrier window system **10** may not include any cap(s) **34**. As another example, although the water sealant system **84** (and its three levels of protection) has been described above in connection with the frame **22** and window **44**, in other examples, the water sealant system **84** (and its three levels of protection) may be used with any other frame and/or window. As an example of this, the water sealant system **84** (and its three levels of protection) may be used with traditional frames and windows. As a further example, although the water sealant system **84** has been described above as including three levels of protection (i.e., the first level of sealant **88**, the second level of sealant **96**, and the gasket **100**), in some examples, one or more of these levels of protection may not be used. As an example of this, the flood barrier window system **10** may be used with only the first level of sealant **88**. As another example of this, the flood barrier window system **10** may be used with only the first level of sealant **88** and the gasket **100**. Furthermore, although the window system **10** has been described above as providing protection for floods, in other examples, the window system **10** may provide protection for hurricanes, fire, blasts (e.g., explosions), ballistics (e.g., bullets), or any combination of the preceding. The window system **10** may also be used with insulated glass, single and multiple glass units, outside structurally glazed units, and/or captured systems.

[0087] This specification has been written with reference to various non-limiting and non-exhaustive embodiments or examples. However, it will be recognized by persons having ordinary skill in the art that various substitutions, modifications, or combinations of any of the disclosed embodiments or examples (or portions thereof) may be made within the scope of this specification. Thus, it is contemplated and understood that this specification supports additional embodiments or examples not expressly set forth in this specification. Such embodiments or examples may be obtained, for example, by combining, modifying, or reorganizing any of the disclosed steps, components, elements, features, aspects, characteristics, limitations, and the like, of the various non-limiting and non-exhaustive embodiments or examples described in this specification.

1. A window system, comprising:

a frame configured to be coupled to an opening in a structure, the frame comprising one or more window seats and one or more moveable window stops, wherein the one or more window seats are configured to surround all or a portion of a periphery of a window, wherein the one or more moveable window stops are configured to be moved and coupled to different positions along a depth of the one or more window seats; and

the window, wherein the window comprises a first window portion, a second window portion, and an interlayer positioned in-between the first window portion and the second window portion, wherein the interlayer extends out of the periphery of the window.

2. The window system of claim **1**, wherein the interlayer is configured to extend in-between at least a portion of both the one or more window seats and the one or more moveable window stops.

3. The window system of claim **1**, wherein the interlayer wraps around at least a portion of the periphery of the second window portion, wraps around a side of the second window portion, and extends vertically along a portion of the side of the second window portion.

4. The window system of claim **1**, wherein each of the one or more window seats comprises a seat portion and further comprises a support portion configured to extend outward from the seat portion and past the periphery of the window on a side of the window.

5. The window system of claim **1**, wherein each of the one or more moveable window stops comprises an anchor portion configured to be coupled to a respective window seat, wherein each of the one or more moveable window stops further comprises a stop portion configured to extend outward from the anchor portion and past the periphery of the window on a side of the window.

6. The window system of claim **5**, wherein each of the anchor portions is configured to be coupled to the respective window seat by at least one of a plurality of teeth extending outward from the anchor portion.

7. The window system of claim **6**, wherein the plurality of teeth are removable from the anchor portion.

8. The window system of claim **6**, wherein the respective window seat comprises a plurality of pockets that are each configured to receive one of the plurality of teeth extending outward from the anchor portion.

9. The window system of claim **8**, wherein:

the plurality of teeth are evenly spaced from each other; and

the plurality of pockets are evenly spaced from each other by the same amount as the plurality of teeth.

10. The window system of claim **1**, wherein the frame further comprises one or more caps configured to be coupled to and cover one or more exposed portions of the one or more window seats and the one or more moveable window stops.

11. The window system of claim **1**, further comprising one or more connectors configured to couple the frame to the opening in the structure.

12. The window system of claim **11**, wherein each of the one or more connectors are configured to be positioned into each of:

at least one of the one or more window seats;

at least one of the one or more moveable window stops; and

a portion of the structure.

13. The window system of claim **1**, further comprising a water sealant system comprising:

a first level of sealant configured to be positioned in a gap in-between the frame and the structure in a location positioned outward of a first backer rod; and

a second level of sealant configured to be positioned in the gap in-between the frame and the structure in a location positioned inward of the first backer rod and further positioned outward of a second backer rod.

14. A method, comprising:

positioning one or more window seats of a frame along all or a portion of a periphery of a window, wherein the window comprises a first window portion, a second window portion, and an interlayer positioned in-between the first window portion and the second window portion, wherein the interlayer extends out of the periphery of the window;

coupling one or more moveable window stops of the frame to the one or more window seats at a position along a depth of the one or more window seats, wherein the position along the depth is based on a thickness of the window;

inserting the frame and the window into an opening in a structure; and

coupling the frame to the opening in the structure.

15. The method of claim **14**, further comprising:

prior to the coupling of the one or more moveable window stops of the frame to the one or more window seats, positioning a portion of the interlayer of the window in-between at least a portion of both the one or more window seats and the one or more moveable window stops.

16. The method of claim **14**, wherein the interlayer wraps around at least a portion of the periphery of the second window portion, wraps around a side of the second window portion, and extends vertically along a portion of the side of the second window portion.

17. A window system, comprising:

a frame configured to be coupled to an opening in a structure, the frame comprising one or more window seats, wherein an exterior-facing surface of each of the one or more window seats is configured to be coupled to an interior-facing surface of a window; and

the window, wherein the window comprises a first window portion, a second window portion, and an interlayer positioned in-between the first window portion and the second window portion, wherein the interlayer extends out of the periphery of the window and wraps around at least a portion of the periphery of the second window portion.

18. The window system of claim **17**, further comprising a water sealant system comprising:

a first level of sealant configured to be positioned in a gap in-between the frame and the structure in a location positioned outward of a first backer rod; and

a second level of sealant configured to be positioned in the gap in-between the frame and the structure in a location positioned inward of the first backer rod and further positioned outward of a second backer rod.

19. A method, comprising:

inserting one or more window seats of a frame into an opening in a structure;

coupling the frame to the opening in the structure; and

coupling an interior-facing surface of a window to an exterior-facing surface of each of the one or more window seats, wherein the window comprises a first window portion, a second window portion, and an interlayer positioned in-between the first window portion and the second window portion, wherein the interlayer extends out of the periphery of the window and wraps around at least a portion of the periphery of the second window portion.

20. The method of claim **19**, further comprising:

positioning a first level of sealant in a gap in-between the frame and the structure in a location positioned outward of a first backer rod; and

positioning a second level of sealant in the gap in-between the frame and the structure in a location positioned inward of the first backer rod and further positioned outward of a second backer rod.

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