VENTILATED SIDING SYSTEM

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ABSTRACT
A lap siding system for use on an exterior of a building that includes a plank having a length and a complementary member, such as corner trim, door trim, etc. The lap siding system further includes a flashing disposed between the plank and the complementary member. The plank, the complementary member, and the flashing are adapted to be coupled to an exterior of a substructure of a building. At least one of the plank, the complementary member, and the flashing is adapted to create at least one ventilation channel between the substructure of the building and at least one of the plank, the complementary member, and the flashing.
VENTILATED SIDING SYSTEM

BACKGROUND

[0001] This disclosure relates generally to lap siding systems and apparatus for use on the exteriors of residential and commercial buildings. Lap siding systems generally provide aesthetically pleasing, low maintenance exteriors to a variety of buildings by attaching overlapping horizontal or vertical boards or planks to the exterior of a building. For simplicity, the term “plank” includes boards, slats, and panels. Planks may be made of wood, cementitious material, plastic, metal, glass, various types of fiber and filler material, composites of these materials and other materials known in the art.

[0002] A common problem in construction is that of weatherproofing structural junctures in lap siding systems, such as between planks, at corners, at junctions between planks and other structural features such as windows and doors, and at junctions between planks and other decorative features such as trim, appliqués, and similar features. Weatherproofing serves the goal of protecting the underlying structure of the building from the damage associated with water seepage that can result in flourishing termites, pest, and mold populations. Damage resulting from water seepage may also result in rotting, swelling, and warping of the planks of the lap siding system, the trim, appliqués, and other features, and/or the underlying structure. Water seepage may also result in a reduction of the effectiveness of insulation, cracks in the masonry, loosening of the siding system from the underlying structure of the building, and the like.

[0003] The standard practice in weatherproofing is to seal and back the juncture with flashing. Typically, such flashing is made of metal or vinyl and positioned under the juncture and affixed to the underlying structure. This type of flashing is normally placed along the entire seam created by the juncture.

[0004] The flashing is usually sealed against the underlying structure with caulk. However, caulk tends to shrink over time. Additionally, the weathering and dissimilar thermal expansion and contraction of the flashing, siding, and caulk often leads to failure of the seal so that water seeps behind the siding and may result in water damage to the lap siding system and underlying structure. Furthermore, the exposed junctions, caulk, and flashing may be unsightly.

[0005] Additionally, the bottommost horizontal planks and starter strips of currently available lap siding systems abut or contact a portion of the foundation or wainscot. Water often collects and sits in this juncture causing water damage to the bottommost planks and starter strips. Furthermore, the bottommost planks and starter strips are often disposed so close to the underlying structure of the building that water wicks up between the bottommost planks, starter strips, and the underlying structure of the building, which increases the likelihood that significant water damage will occur.

[0006] Another problem in the installation of a lap siding system on a building is the difficulty in evenly attaching each plank to the underlying structure. The conventional method of installation requires constant measuring of plank position and adjustment, which is time-consuming.

[0007] With some lap siding systems, a clearance between the roof and the lap siding system of at least two inches may be required. Flashing and counter flashing may be installed and caulked to protect the gap from wind and water. However, this gap may be unsightly and, like the junctions discussed above, the caulk and flashing may fail so that water is able to seep behind the flashing.

[0008] Most lap siding systems are secured to the underlying structure by top nailing, which is also referred to as blind nailing. The nail used in blind nailing is driven through the plank near the top of the plank such that the nail head would be covered by the next higher plank as it overlaps the top of the lower plank. Each progressively higher plank overlaps the top nail of the lower plank, thus rendering it a blind nail. Blind nailing secures the planks to the structure and provides an aesthetically pleasing appearance to the lap siding. However, with the only fastening mechanism being applied at the tops of the planks, the lower portion of the planks is unsecured. In the event of moderate or high winds, it is common for wind to get under the lower edge of the plank and apply upward and/or outward pressure on the plank, causing it to loosen, bend, warp, or even separate from the building. Accordingly, it is common in many parts of the world to secure the planks with both blind nails and face nails. The face nails are driven through the lower or bottom portion of the planks and into the underlying plank and/or the underlying structure.

[0009] While the face nails can provide additional strength to the coupling of the plank to the structure, the face nails are known to cause several concerns. As one example, the face nails are often considered to be unsightly and attempts to paint over them are often unsuccessful for a number of reasons. In some circumstances, the face nails can be driven too far into the plank exposing siding fibers. The exposed siding fibers are then open to the elements and, if the face nail is countersunk too far, the structural integrity of the siding plank may be impaired. Additionally, the face nails, whether driven too far or not, create another opening in the exterior siding and a possible channel for water to be wicked, or otherwise passed, from the exterior of the siding to the interior of the siding where it can cause one or more of the problems identified above.

[0010] Proper installation of lap siding with face nails requires each face nail to be caulked and sealed to resist moisture from penetrating through the siding. Other than being incredibly time-consuming to caulk each face nail, the caulk also presents long term problems due to differences in materials between the caulk and the planks, different expansion and contraction rates, and different weathering patterns between the materials. Accordingly, even if the caulking and painting can be done initially to avoid the aesthetic problems and to prevent moisture from penetrating the siding at the face nail, the adequacy of the seal generally deteriorates over time and the aesthetic issues generally arise as the color of the paint over caulk changes tone differently than the paint over the siding plank.

[0011] Conventional lap siding relies heavily on attempts to weatherproof the structure by sealing the structure against the exterior elements, such as by caulkling the joints between planks and at junctures where planks terminate at other structural or decorative features, such as windows, doors, trim, or changes in the contour of the underlying structure. However, time has shown that a perfect and complete seal of a structure against the elements is difficult and can have negative consequences for the structure and its occupants. As one example, it is generally accepted that homes need to breath. Allowing a home to breath is believed to improve the longevity of the structure and improve the living conditions in the home. In the attempts to seal a home against the exterior elements, siding planks are generally placed close together and caulkking is applied between the siding planks and/or between siding planks and other materials forming the exterior of the struc-
ture. When these caulking seals are freshly applied, assuming the seals are done correctly, the home cannot breath. There is generally no air flow behind the siding planks or other features.

Additionally, when one of these caulking seals fails and allows a little bit of moisture to penetrate the exterior shell of the structure, the moisture is effectively trapped between the exterior shell and the underlying structure. As suggested above, moisture can penetrate the exterior shell in a number of ways, such as through the face nails and/or the joints between planks, particularly when the caulking ages and weathering. Once the moisture is trapped between the exterior shell and the underlying structure, the moisture can lead to several problems including rotting of the structure and/or siding planks, allowing mold to grow between the siding planks and the structure, and attracting a variety of pests. Because of the extremely limited airflow between the structure and the siding planks, the moisture will not dry out very quickly. In many circumstances, the moisture may not sufficiently dry out in time to prevent the negative consequences of the moisture.

SUMMARY

The apparatus and system of the present disclosure has been developed in response to the present state of the art, and in particular, in response to the problems and needs in the art that have not been fully solved by currently available lap siding systems and apparatus. Thus, the present disclosure provides a lap siding system and apparatus for providing an aesthetically pleasing, low maintenance exterior to a variety of buildings.

In accordance with the technology as embodied and broadly described herein in the preferred embodiment, a lap siding system is provided. The lap siding system may include a plurality of planks having a first end and a second end. Additionally, one or more of the ends of each plank may be operatively associated with another exterior member of the building, such as another siding plank, a door trim member, a window trim member, a corner member, or other such members, one or more of which may also comprise part of the lap siding system of the present disclosure. When installed on a building, a portion of each plank may overlap a part of another plank. The planks may be installed on the building such that there is a space provided between at least a portion of the planks and the underlying structure of the building, which may also be referred to as the substructure of the building.

The space provided between the substructure and the planks may be referred to as a ventilation channel. Accordingly, a building covered with multiple planks as part of a lap siding system may include multiple ventilation channels between the planks and the substructure. In order to facilitate the movement of air through the one or more ventilation channels, the planks of the lap siding system and the complementary members, such as corner trim, door trim, window trim, etc., may be associated in a manner to provide a complementary ventilation channel between the associated end of the plank and the structures of the complementary members. One or more complementary ventilation channels may be provided in a building implementing the lap siding system of the present disclosure. The complementary ventilation channels may be adapted to extend between at least two ventilation channels.

These and other features and advantages of the present description will become more fully apparent from the following description and appended numbered paragraphs, or may be learned by the practice of the invention as set forth hereinafter.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

In order that the manner in which the above-recited and other features and advantages of the present disclosure are obtained will be readily understood, a more particular description of the present systems and methods briefly described above will be rendered by reference to specific embodiments thereof which are illustrated in the appended drawings. Understanding that these drawings depict only typical embodiments of the systems and methods and are not therefore to be considered to be limiting of its scope, the present technology will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

- FIG. 1 is a perspective view of a building at least partially covered by a lap siding system;
- FIG. 2 is a cross section top view of a corner trim member that may be part of a lap siding system;
- FIG. 3 is a perspective view of exploded inside and outside corner trim members;
- FIG. 4 is a perspective view of an assembled portion of a corner trim member;
- FIG. 5 is a cross-sectional top view of the corner trim member of FIG. 2;
- FIG. 6 is a perspective view of a corner trim members supported to using planks and a starter flashing;
- FIG. 7 is a side perspective view of a corner trim member, siding plank, and starter flashing of FIG. 6;
- FIG. 8 is a cross-sectional view of a frieze board associated with a soffit and a horizontal siding plank;
- FIG. 9 is a cross-sectional view of a frieze board associated with a soffit and a vertical siding plank;
- FIG. 10 is a perspective view of the siding system utilizing a "plank and batten" configuration with an apron trim and frieze board.

DETAILED DESCRIPTION

The presently preferred embodiments will be best understood by reference to the drawings. It will be readily understood that the components, as generally described and illustrated in the figures herein, could be arranged and designed in a variety of different configurations. Thus, the following more detailed description of the lap siding system, as represented in FIGS. 1 through 18, is not intended to limit the scope of the present disclosure, as described in the appended numbered paragraphs, but is merely representative of presently preferred embodiments.

FIG. 1 presents a perspective view of a building 100, which is representative of the large diversity of buildings with which the lap siding system of the present disclosure may be used. As used herein the terms building and structure will be used synonymously to identify an object to which a lap siding system may be applied. For example, the structures and buildings may include residential homes, commercial buildings, schools and other non-residential buildings, sheds, garages, boat houses, dog houses, etc. The structures to which the lap siding systems may be applied may comprise a variety of elements depending on the method of construction. For purposes of description, the structure 100 will be described as...
including a substructure (not shown) at least part of which forms part of or the entire exterior skeleton of a building. The
 term substructure will be used herein to refer to that portion of
 the building to which one or more members of the lap siding
 system is attached.

[0030] FIG. 1 illustrates that the exposed exterior 102 of the
 building 100 may include a variety of components. As exa-
 mple components, FIG. 1 illustrates a door 104, a window
 106, a foundation 108, and soffit and fascia elements 110.
 Additionally, the exposed exterior 102 includes a lap siding
 system 112. The lap siding system may include several com-
 ponent parts, many of which are described hereinbelow and
 the remainder of which are consistent with the principles
 described in the present disclosure. The door 104 and the
 window 106 illustrated in FIG. 1 are representative of the
 variety of doors and window that are or may become available
 for use. The foundation 108 is representative of the variety of
 circumstances in which a lap siding system may adjoin a
 different exterior material. For example, lap siding systems
 112 may be applied on the exterior of a second level of a
 building while the first level of the building is covered by
 brick, stucco, or some other material such as an apron or
 skirting. The soffit and fascia elements 110 are similarly
 representative of the variety of circumstances in which an
 upper portion of a building may extend farther than the lower
 portion of the building. Such a situation is most common at
 the roofline, but may also occur when an upper level room
 includes a bay window or is otherwise configured to provide
 an overhang, such as to form a covered porch or similar
 feature.

[0031] The lap siding system 112 of the present disclosure
 may provide numerous benefits to the building it covers. For
 example, the present lap siding system may promote the
 weatherproofing of the building through the use of flashings
 at junctures between planks and between planks and other
 elements of the plank siding system 112. Additionally, the
 present lap siding system may facilitate the installation of the
 planks and other elements through the use of interlocking
 members between the planks. Some aspects of these features
 will be described herein; other aspects have been previously
 described in U.S. patent application entitled WEATHER-
 PROOF LAP SIDING SYSTEM, application Ser. No.
 11/271,633, filed Nov. 10, 2005, which is incorporated herein
 by reference in its entirety for all purposes.

[0032] With continued reference to FIG. 1, lap siding sys-
 tems 112 according to the present disclosure may include
 planks 114, which may be horizontal planks 116, vertical
 planks 118, or planks configured otherwise. The exact con-
 figuration of each plank 114 and its association with neigh-
 boring planks may vary based on its intended orientation and
 usage. Additionally, plank siding systems 112 may include
 one or more complementary members 120 adapted to coop-
 erate with the planks 114 to cover the exposed exterior 102 of
 the building 100. The complementary members 120 may include
 such elements as corner trim members 122, door trim
 members 124, window trim members 126, soffit members
 128, fascia members 130 and apron members (not shown).
 In some installations, it may be preferable to use a joint member
 132 for decorative and/or functional purposes, which joint
 member may be configured as a complementary member 120.

[0033] For example, the lap siding system 112 may include
decorative appliqués such as decorative shutters, window
 sills, window headers, sill boxes, masonry headers, door
 headers and gables. Additionally, the lap siding system 112
 may include a plurality of planks, flashings, trim members
 and other complementary elements 120. The various com-
 ponents of the lap siding system are adapted to be easily
 installed in a variety of configurations. Additionally, in some
 configurations, the present lap siding system provides weather-
 proofing benefits to the substructure as well.

[0034] As described above, a persistent problem in weather-
 proofing buildings is the possibility for moisture to wick,
 seep, or otherwise get behind the exterior materials and to
 become trapped between the exterior materials and the sub-
 structure of the building. Prior efforts have attempted to seal
 the exterior completely through the use of caulking and seal-
 ing between the various exterior materials. However, as dis-
 cussed in the above incorporated application, such weather-
 proofing efforts have been less than fully successful,
patternly when the elements of aesthetics and the impact of
 time are considered.

[0035] The lap siding systems 112 of the present disclosure
 utilize air, and particularly the possibility of moving air, to
 increase the opportunities for any moisture trapped between
 the exterior materials and the substructure to be dried out
 before leading to the problems identified above, such as rot,
mold, and/or pests. One example of the associations between
 the planks 114, the complementary members 120, and the
 substructure is shown in FIGS. 2-7, which illustrate an exa-
 mplary relationship between planks 114 and an exemplary cor-
 ner trim member 122.

[0036] FIG. 2 illustrates a cross sectional top view of a
 segment of an exemplary corner trim member 122. As illus-
 trated, corner trim member 122 includes a first leg 134 and
 a second leg 136, which are adapted to be joined together to
 form a 90° angle. The corner trim member 122 also includes
 flashings 140 associated with each of the first and second legs
 134, 136. The first and second legs 134, 136 of the corner trim
 member 122 may be coupled together in any suitable manner,
such as the interlocking dado cut and finger configuration 142
 shown in FIG. 2. Additionally, the first and second legs 134,
 136 may be coupled together at any suitable angle to provide
 the desired corner trim. Alternatively, the corner trim member
 122 may be made of a single member configured to have two
 extending leg segments to which the flashings 140 are
 coupled.

[0037] Flashings 140 may be associated with the legs of the
 corner trim member 122 in any suitable manner. When the
 corner trim member 122 is attached to the building, the
 flashings 140 and the legs may be coupled together in a manner
 to provide a corner trim member 122 that is at least somewhat,
 if not substantially, difficult to separate into its component parts
 without breakage. The coupling between the flashing 140 and
 the remainder of the corner trim member 122 will be
 described in more detail below.

[0038] As illustrated, the flashings 140 are secured to a
 building 100 by means of fasteners 172, wherein the fasteners
 172 are inserted through an extended portion 162 of the
 flashings 140. The lap siding system 112 further comprises an
 interlocking clip 198. The interlocking clip 198 is placed over
 an upper plank 208 such that a first portion 300 of the inter-
 locking clip 198 is positioned between the upper plank 208
 and the building 100 while a second portion 302 of the inter-
 locking clip 198 is position over the outer surface of the upper
 plank 208. The configuration and use of the interlocking clip
 198 will become more apparent in the discussion of FIGS. 5-7
 below.
As configured, the corner trim member 122 comprises a plurality of ventilation channels 180. Each ventilation channel 180 provides air circulation to the individual components of the lap siding system 112 thereby providing an escape for undesirable moisture within the system 112. Additionally, each individual ventilation channel 180 may be in fluid communication with another ventilation channel 180 such that a ventilation system is created within the lap siding system 112. The specifics of the ventilation channels 180 and their various subcomponents will be discussed in detail below in conjunction with FIGS. 5-10.

FIG. 3 illustrates an exploded view of corner trim members 122, specifically an outside corner trim member 144 and an inside corner trim member 146, separated from flashing 140. As illustrated in FIG. 3, flashings 140 may be positioned at any suitable location on the corner trim member 122 to configure the corner trim member 122 for use in the desired location. For example, when the flashings 140 are coupled to the inside of the corner trim member 122, the corner trim member is configured as an inside corner 144. Similarly, when the flashings 140 are coupled to the outside of the corner trim member 122, the corner trim member is configured as an inside corner 146. Therefore, the flashing 140 is configured as a universal member that may be used with either corner trim member configuration 144 and/or 146.

FIG. 4 illustrates a perspective view of a portion of the corner trim member 122 having the flashing 140 coupled thereto. FIG. 4 presents an exemplary method of coupling the flashing 140 to the leg member 134 of the corner trim member 122. While only one method of coupling is illustrated, it is understood that other methods are available.

As illustrated, the leg member 134 includes a mouth 148 having a lower lip 150 and an upper lip 152. The mouth 148 is adapted to receive at least a portion of the flashing 140 and may be configured to retain a portion of the flashing 140 within the mouth 148. The mouth 148 of the leg member 134 may include a variety of elements suitable for receiving and retaining portions of the flashing 140, at least some of which may vary depending on the configuration of the flashing 140. For example, the mouth 148 may include a channel 154 adapted to receive a portion of the flashing 140 and may include an indentation 156 in the upper lip 152 for catching a flange portion 166 of the flashing 140.

FIG. 4 illustrates an exemplary flashing 140 including portions adapted to cooperate with the mouth 148 to couple the flashing 140 to the leg member 134. As illustrated, the flashing 140 includes a head portion 158 adapted to extend into the mouth 148 of the leg portion 134. The flashing 140 further includes a platform portion 160 and an extension portion 162. The head portion 158 illustrated in FIG. 4 includes a tongue 164 extending into the channel 154 and a flange 166 that extends into the indentation 156.

With reference to FIG. 3 and FIG. 4, it can be seen that the flashing 140 and leg member 134 configuration illustrated therein allow the head 158 of the flashing to be inserted into the mouth 148 of the leg member 134 with the flange 166 passing beyond the ridge 168 of the upper lip 152 and into the indentation 156. Once the flange 166 is received into the indentation 156, the flashing can be removed with fairly substantial manipulation of the flashing 140, assuming it is constructed of flexible materials or by sliding the flashing along the length of the corner leg member 134. Once the corner trim member 122 is installed on a building, the opportunity for sliding the flashing along the length may be severely limited and the flashing and leg member may be sufficiently coupled.

Additionally or alternatively, the flashing 140 may be coupled to the remaining portions of the corner trim member 122 in other suitable manners. For example a portion of the flashing may be coupled to the leg member 134 by fasteners, adhesives, or other known coupling agents. Preferred configurations would allow the fastening means to be hidden from view when the corner trim member 122 is applied to the building. One exemplary alternative may include a flashing with a simplified head portion adapted to help position the flashing 140 relative to the leg member 134 and may include a fastening means hidden from view, such as a screw or other fastener through the back side of the fastener 140 and into the back side of the leg member 134. One example of such a simplified head configuration is shown and described in more detail in connection with FIG. 5.

With continued reference to FIGS. 2-4, FIGS. 5-10 will be described to further illustrate the ventilation features of the lap siding system 112 of the present disclosure. FIG. 5 illustrates a top view of a corner trim member 122 coupled to a flashing 140, both of which are substantially as shown and described in connection with FIGS. 2-4. It should be noted that the corner trim member 122 discussed in connection with FIGS. 5-7 is representative of the variety of complementary members 120 with which the planks 114 may be associated. Corner trim member 122 includes the exterior members 170, which includes the first and second leg members 134, 136 as illustrated, and flashings 140 coupled to the exterior members 170. FIG. 5 further illustrates a configuration where the support portion 160 is adapted to provide a space through which a fastener 172 may be used to couple the flashing 140 to the exterior member 170.

The top view illustrated in FIG. 5 further illustrates some of the ventilation channels 180 created by the lap siding system 112 of the present disclosure. As illustrated, platform portions 160 are adapted to separate exterior members 170 from the substructure 100 of the building. The platform portions 160 may be provided in a variety of configurations to offset the exterior members 170 from the substructure 100 by a desired offset distance 182. The offset distance 182 established by the platform portions 160 may define the depth of the corner ventilation channel 184 and the platform ventilation channels 186. Flashings 140 may include platform portions 160 of a variety of configurations to create greater or fewer platform ventilation channels 186 of any suitable shape or configuration.

With continuing reference to FIG. 5 and with reference to FIG. 6, it can be seen that planks 208, 212 are adapted to be associated with the corner trim members 122 within planks channels 190, at least partially formed by flashings 140 and the exterior members 170. In a perfectly weatherproofed building, moisture would not be able to penetrate the exterior shell of the building to be trapped behind the corner trim member 122. For example, the top of the corner trim member 122 would be capped by a soffit and/or roof structure and the bottom of the corner trim member would be capped or otherwise sealed against the exterior moisture. Additionally, the flashings 140 are adapted to keep substantially all of the water that might contact the planks from seeping or wicking behind the corner trim member 122. However, experience has shown
that water has an amazing ability penetrate into undesirable location within siding systems despite best efforts of prevention.

[0049] Regardless of how the water finds its way into a siding system, moisture retained within a siding system leads to certain problems for the structure as previously discussed. Therefore, the present invention provides a plurality of ventilation channels 180 thereby providing an escape route for moisture trapped within the lap siding system 112. Specifically, the ventilation channels 180 created between the corner trim member 122 and the substructure of the building are adapted to allow air to move behind the corner trim member 122 thereby drying out moisture that may be present behind the trim.

[0050] In order to maximize the size of the ventilation channels 180 and to minimize the surface area of the corner trim member 122 in direct contact with the substructure, the platform portion 160 of the flashing 140 may be configured with multiple platform supports 192 as illustrated in FIGS. 2-6. The platform portion 160 may additionally or alternatively be adapted to include support members of different configurations, some of which may increase the contact surface area between the flashing 140 and the substructure compared to the illustrated embodiments.

[0051] The ventilation channels 180 created by the present lap siding systems 112 may have varying degrees of air flow through the channels depending on the location of the channel on the structure and depending on the ambient weather conditions. For example, the degree of ventilation, or air flow rate, may increase on a windy day compared to a calm day. Continuing with the example of the corner trim member 122, the corner ventilation channel 184 may be adapted to principally rely upon air entering the channel from the top or bottom of the channel (e.g., from the soffit region or adjacent the foundation). In such circumstances, the top of the corner ventilation channel 184 is configured in fluid communication with ventilation channels in the soffit and/or roof structure of the building. The bottom of the corner ventilation channel 184 may be open to the atmosphere to allow air flow in and out. Additionally or alternatively, the bottom of the corner ventilation channel 184 may be shielded to a greater or lesser degree by one or more systems adapted to prevent water from entering the corner ventilation channel 184 while still allowing air to flow through the corner ventilation channel.

[0052] While the ventilated lap siding systems of the present disclosure are primarily passive ventilation systems (i.e., systems that do not utilize or rely upon mechanical means to drive air through the ventilation channels 180), lap siding systems within the scope of the present disclosure may be adapted and installed to facilitate a driven ventilation system. For example, a fan may be positioned near to an opening in the ventilation system to blow air in the desired direction to increase air flow in one or more of the ventilation channels. Clean-up operations following a flood or other event in which an exceptionally large amount of water contacts the building or in which water contacts the building in unexpected manners (such as from the ground up rather than otherwise) present one example of when a driven ventilation system may be economically implemented. An air pump with a hose may be coupled to an inlet of one or more of the ventilation channels 180 and air may be pumped through the channels at a suitable flow rate to accelerate the drying of the building. To the extent that two or more of the ventilation channels are in fluid communication, the mechanical, driven ventilation system will be simplified.

[0053] Additionally, a complementary ventilation channel 218 is provided to allow for the natural expansion and contraction of the siding members 208, 212 due to changes in the climate and temperature. In addition to providing ventilation, the complementary ventilation channel 218 provides a physical gap between the siding members 208, 212 and the flashing 140. During expansion, the complementary ventilation channel 218 provides a space into which the siding members 208, 212 may expand rather than buckling and/or dislodging from the substructure 100. The complementary ventilation channel 218 in conjunction with the plank channel 190 provides sufficient clearance between the siding members 208, 212, the complementary corner members 134, 136 and the flashing 140 whereby the siding members 208, 212 may expand and contract without undesirable binding and/or rubbing on other components of the lap siding system 112.

[0054] FIGS. 6-10 further illustrate aspects of the ventilation channels 180 that are provided by the lap siding system 112 of the present disclosure. FIGS. 6 and 7 present front views of a segment of planks 208 and 212 disposed in association with a corner trim member 122 substantially as it may be associated when installed on a building. As shown most clearly in FIGS. 7 and 8, planks 212 and 208, respectively, are angled as is traditional in lap siding systems.

[0055] The angled configuration of tradition siding systems is replicated within the current lap siding system 112 by the use of shims 274. The shims 274 may be modified to form a continuous structure capable of filling the voids between multiple overlapping components such as siding planks and an even and/or uneven building substructure 100. Additionally, the shims 274 may be formed to include any material, shape, size, dimensions, orientation, and/or other features in order to fill undesirable voids within the lap siding system 212. Finally, the shims 274 may be secured, attached and/or installed to any component in any order of installation using any attachment mechanism or method.

[0056] Referring now to FIGS. 6 and 7, the lower region 194 of plank 212 is supported away from the substructure of the building (not shown) by a starter flashing 196. Starter flashing 196 is illustrative of a variety of starter flashings that may be implemented to offset the lower region 194 of the plank 114 from the substructure of the building.

[0057] For example, in the event that an apron (not shown) is disposed below the lowermost layer of planks, the starter flashing 196 may include clips or braces to facilitate positioning of the starter flashing 196 relative to the apron. Similarly, the starter flashings that may be used may include drainage features and/or water control features to help direct water away from whatever may be underlying the lowermost layer of planks. An embodiment of an alternative starter flashing is discussed below in connection with FIG. 10.

[0058] FIGS. 6 and 7 further illustrate an interlocking clip 198 that may be used to couple the lower plank 212 with an upper plank 208. The interlocking clip 198 may be coupled to an underlying plank 212 and/or 208 using one or more fasteners, such as through fastener hole 200. As seen most clearly in FIGS. 6 and 7, interlocking clip 198 includes a beveled lower edge 202 that is adapted to cooperate with the beveled lower edge 204 in the interlocking groove 206 in the backside of the lower region 194 of each plank 212 and 208. As illustrated, the interaction between the interlocking clip
198 and the interlocking groove of the upper plank 208 is similar to the interaction of the interlocking groove 206 of lower plank 212 with the beveled lower edge 220 of the starter flashing 196.

[0059] The contours of the surfaces of the interlocking clip 198, the starter flashing 196 and the interlocking groove 206 may vary depending on the preferences of the manufacturer and the circumstances of the installation. However, when mating beveled surfaces are utilized, a bevel of between about 30° and about 60° may be suitable for the interlocking clip 198, the starter flashing 196 and the interlocking groove 206.

[0060] While not necessary for the purposes of the ventilated siding system of the present disclosure, the interaction between the interlocking clip 198 and the interlocking groove 206 may provide the lap siding system with a variety of features. For example, the interlocking relationship between the clip 198 and the groove 206 may couple the lower region 194 of the plank 208 to the building 100, such as by coupling to the next lower plank 212 or to a starter flashing 196 as illustrated in Fig. 6. Additionally or alternatively, the interlocking clip 198 may provide an installation guide to enable the installers to properly position and align subsequent layers of planks without undue measurement and leveling.

[0061] Additionally or alternatively, the interlocking clips 198 and the interlocking groove 206 may be adapted to provide a vent between the subsequent planks. As illustrated most clearly in Fig. 6, the interlocking clip 198 is adapted to be slightly thicker than the depth of the interlocking groove 206. The difference between the interlocking clip thickness and the depth of the interlocking groove may cause the lower region 194 of an upper plank 208 to be offset from the upper region 210 of the lower plank 212 thereby forming a vent 214 between the locations of the interlocking clips 198. The vent 214 may allow air into and out of the plank ventilation channels 216, which is another example of a ventilation channel 180 within the scope of the present disclosure.

[0062] The vent 214 may be adapted to advantageously allow ambient air to flow into the plank ventilation channels 216 for subsequent flow into one or more other ventilation channels 180. The vents 214 and the relationship between the upper planks 208 and the lower planks 212 may be adapted to provide sufficient coverage of the vent 214 that moisture would not be able enter the vent, except for during the infrequent times when water moves upward, such as during flooding. Additionally, the relationship between the upper and lower planks 208, 212 may include sufficient spacing to limit and/or prevent wicking between the two planks. The interlocking clip 198 and the interlocking groove 206 may be adapted to create a vent 214 having a gap of varying thickness between the upper and lower planks. For example, the spacing between the planks may provide a vent 214 as small as about 0.1 centimeters thick or as large as 0.5 centimeters.

[0063] With continuing reference to Figs. 6 and 7, the relationships between the vents 214, the plank ventilation channels 216, and the complementary ventilation channel 218 are described in more detail. As illustrated, the plank ventilation channels 216 run behind each of the planks 208 and/or 212, between the planks 208 and/or 212 and the substructure of the building (not shown). As the planks 208 and/or 212 and the plank ventilation channels 216 approach a complementary member such as the corner trim member 122, the plank ventilation channels 216 are in fluid communication with the complementary ventilation channel 218. Accordingly, each of the plank ventilation channels 216 and each of the complementary ventilation channels 218 in the building (not shown) may be in fluid communication with each other. Additionally or alternatively, one or more of the various ventilation channels may be isolated from the others.

[0064] With continued reference to Figs. 6 and 7, it can be seen that the complementary ventilation channel 218 may be in fluid communication with the plank ventilation channels 216 and with the ambient air. The complementary ventilation channel 218 may be in fluid communication with the ambient air as illustrated, due to the angled planks 208 and/or 212 creating a gap 222 between the outer surface of the planks and the inner surface 280 of the complementary member 120. Additionally or alternatively, the complementary ventilation channel 218 may be in fluid communication with the ambient air at one or more ends of the complementary ventilation channel 218. For example, at the bottom end 278 of the corner trim member 122, the complementary ventilation channel 218 may be at least partially open to the environment.

[0065] Figs. 6 and 7 further illustrate the plank 212 coupled to a starter flashing 196 at the lower region 194 of the lower plank 212. The starter flashing 196 may be continuous along the entire lower region 194 of the lower plank 212 or may provide one or more gaps or openings to allow air flow into the plank ventilation channel 216. Additionally or alternatively, the lowermost plank ventilation channel 216 may be aerated at least in part because of its fluid communication with other ventilation channels.

[0066] Fig. 6 also illustrates an upper plank 208 coupled to a lower plank 212 by an interlocking clip 198. As seen in Figs. 6 and 7, the interlocking clip 198 has a length substantially shorter than the length of the planks 208 and 212. In some configurations the interlocking clip 198 may be sufficiently short to require multiple interlocking clips spaced apart along the length of the plank. For example, interlocking clips having a length 276 of between about one inch and three inches may be spaced apart on about 24-48 inch centers to provide the desired degree of coupling. In such configurations, the interlocking clips 198 will not interfere with airflow through the vents 214. Accordingly, the plank ventilation channels 216 may also be in communication with ambient air by way of the vents 214.

[0067] Turning now to Figs. 8-10, another exemplary complementary member 120 is illustrated to provide additional examples of ventilation channels 180 within the scope of the present disclosure. Fig. 10 illustrates an exemplary frieze board 224 that may be used to provide a finished trim between the top of the plank 208 and/or 118 and the soffit members 128. Frieze boards 224 may be used in cooperation with horizontal planks 116 and/or with vertical planks 118. The frieze board 224 as illustrated in Figs. 8-10 may be used with either horizontal planks 116 or vertical planks 118. For purposes of description, frieze 226 of Fig. 8 will be referred to as horizontal frieze 226 due to its adapted use in cooperation with horizontal planks 116. Additionally, for purposes of description, frieze 246 of Figs. 9 and 10 will be referred to as vertical frieze 246 due to its adapted use in cooperation with vertical planks 118. It will be noted that frieze board 224 is the same component in each of Figs. 8-10 and only referred to as different parts for purposes of description in connection with the present invention.

[0068] Frieze boards 224 may be made of any variety of suitable materials, including wood, composite wood, engineered wood, cementitious materials, vinyl, and metals. Frieze boards 224 may also be adapted to cooperate with one
or more flashings 140 wherein the one or more flashings 140 may comprise a host of variations directed towards adapting the frieze board 224 for use within the present lap siding system 112.

[0069] Turning now to the exemplary horizontal frieze 226 of FIG. 8, it can be seen that the horizontal frieze 226 is adapted to couple to a plank flashing 228 and to a soffit flashing 230. The plank flashing 228 and the soffit flashing 230 each may be adapted to facilitate the coupling of the frieze board 224 to the substructure of the building 100 and to facilitate the relationship between the horizontal frieze 226 and the adjoining members, i.e. 128 and 116. For example, the plank flashing 228 may include an extension portion 232, a support portion 234, and a head portion 236. When installed on a building 100, the extension portion 232 of the plank flashing 228 will be the lowermost region of the horizontal frieze 226. The extension portion 232 may serve multiple purposes. For example, the extension portion 232 may act as a flashing to help keep water and moisture from getting behind the upper most horizontal plank 116 and/or from getting behind the horizontal frieze 226.

[0070] Additionally or alternatively, the extension portion 232 may provide the installers with a facilitated installation method. For example, the horizontal frieze 226 may be secured to the building 100 with fasteners 172 through the extension portion 232 rather than through the material of the frieze member itself. In addition to facilitating the installation, the use of the extension portion 232 for coupling the frieze to the building maintains the integrity of the frieze board 224 thereby limiting the amount of moisture that can penetrate behind the frieze board 224.

[0071] The support portion 234 may be substantially similar to the support portion 160 of the previous illustrations. The support portion 234, as well as the remainder of the flashing 140, may be made of any suitable materials, such as plastics, metals, composite materials, and the like. The configuration of the support portion 234 and the remainder of the flashing may depend somewhat on the materials selected as some materials are more easily configurable than others. As described above, the support portion 234 may be adapted to provide ventilation channels 180 behind the frieze board 224.

[0072] Additionally, the support portion 234 may provide a space for the plank flashing 228 to be coupled to the exterior member 238 of the horizontal frieze 226, which may be similar to or different from the configuration shown in greater detail above, and which may include the use of a fastener through the support portion 234 and into the exterior member 238. For the purposes of brevity, the details of the ventilation channels 180 and the relationship between the support portion and the ventilation channels 180 will be summarized by reference to the above discussion of the ventilation channels of the corner member 122. The frieze ventilation channels 240 may be adapted to be in fluid communication with at least one other ventilation channel 180, such as the corner ventilation channel 186.

[0073] The plank flashing 228 further comprises a head portion 282 configured to compatibly engage a mouth portion 242 of the horizontal frieze 226. The mouth portion 242 is formed at one end of the frieze 226 wherein the mouth portion 242 extends along the length of the frieze 226 defining the recessed space between an outer lip 284 and an inner lip 286 of the frieze 226. The head portion 282 of the plank flashing 228 further comprises at least one support portion 288 whereby at least one ventilation channel 180 is created between the head portion 282 and the inner surface of the inner lip 286.

[0074] The head portion 236 of the plank flashing 228 is noticeably different from the head portion 158 illustrated above. As discussed above, the head portion 236, however, provides many of the same functionality of the head portion 158. For example, the head portion 236, in cooperation with the mouth portion 242 in the exterior member 238, facilitates the proper alignment of the plank flashing 228 relative to the exterior member 238.

[0075] Additionally or alternatively, the head portion 236 in cooperation with the mouth portion 242 and a suitable adhesive may provide sufficient bonding strength between the plank flashing 228 and the exterior member 238 to not require additional fasteners. The head portion 236 and the head portion 158 may be interchangeable and are examples of the various couplings that may be provided between the flashings and the exterior members. The selection of a particular configuration for the head portion may depend on the exterior member to which the flashing is being connected and/or the preferences of the manufacturer or installer.

[0076] The plank flashing 228 further comprises a flange extension 290. The flange extension 290 comprises an outwardly extended portion of the plank flashing 228 thereby providing a plank channel 292 adapted to receive an end of the horizontal plank 116. The flange extension 290 further provides protection to the channeled end of the horizontal plank 116 as well as provides an aesthetic shielding of any exposed fasteners 172.

[0077] The soffit flashing 230 is substantially similar to the plank flashing 228, including an extension portion 232, a support portion 234, and a head portion 236. The support portion 234 may provide at least one of the features described above for the support portion, including the creation of ventilation channels 180 and the coupling of the flashing 230 to the exterior member 100. Additionally, the head portion 236 may provide the functionality described above, including facilitating the coupling of the soffit flashing to the exterior member.

[0078] As illustrated, the head portion 236 of the soffit flashing 230 is different from the head portion of the flashing associated with the corner member 122 and the head portion of the plank flashing 228. The head portion 236 of the soffit flashing 230 comprises a j-shape configured to compatibly engage an upper portion 296 of the horizontal frieze 226. Specifically, the head portion 236 of the soffit flashing 230 comprises a tab 298 for engaging a groove 304 of the horizontal frieze 226. The groove 304 runs the entire length of the frieze 226 and is located towards the upper end of the frieze. The head portion 236 of the soffit flashing 230 is yet another example of the various head portion configurations that are within the scope of the present disclosure.

[0079] The extension portion 232 of the soffit flashing 230, as illustrated in FIGS. 8 and 9, may provide the features of the extension portions previously described and may include one or more additional features. As most clearly seen in FIGS. 8 and 9, the extension portion 232 includes a soffit channel 244 adapted to receive an edge portion of a soffit member 128. In some implementations, the soffit channel 244 may be adapted to help control moisture. For example, as illustrated the soffit channel 244 includes a weather flap 294. The weather flap 294 comprises an extended inner portion of the soffit channel 244 configured to contact an upper side of a soffit member 128.
upon insertion of the soffit member 128 into the soffit channel 244. The weather flap 294 thereby maintains contact with the inserted soffit member 128 and provides a downward force on the soffit member 128 thereby further securing the soffit member 128 within the soffit channel 244.

[0080] Additionally or alternatively, the soffit channel 244 may be adapted to facilitate ventilation within and among the soffit 128 and fascia elements (not shown). Additionally or alternatively, the soffit channel 244 may be adapted to provide fluid communication between one or more ventilation channels 180 and 240 associated with the complementary members 120 and/or one or more ventilation channels associated with other parts of the building 100. Additionally or alternatively, the soffit channel 244 may be adapted to facilitate the installation of the soffit members 128. As illustrated, the soffit flashing 230 is disposed at the uppermost region of the frieze board 224 when installed. The soffit member 128 may be installed by sliding the rear edge of the soffit member (i.e., the edge that will be disposed adjacent to the building 100) into the soffit channel 244 and resting the rear portion of the soffit member 128 on the upper side of the head portion 236 of the soffit flashing 230 as illustrated.

[0081] Referring now to FIGS. 9 and 10, a frieze board 224 is shown configured for cooperation with vertical planks 118. FIGS. 9 and 10 illustrate a cross-sectional view of a vertical frieze 246 at least substantially similar to the horizontal frieze 226 illustrated in FIG. 8 where like elements are indicated by the same reference numbers. For purposes of description, the frieze board 224 of FIGS. 9 and 10 will be referred to as a vertical frieze 246, not because it extends in a vertical direction but because it cooperates with vertical planks 118. Vertical friezes 246 may be configured similar to horizontal friezes 226 in many ways. For example, vertical friezes 246 may be adapted to be the uppermost member of the building exterior. Accordingly, vertical frieze 246 is shown including a soffit flashing 230, which may be configured similar to or identical to the soffit flashings used with horizontal friezes 226.

[0082] However, because the vertical frieze 246 is adapted to cooperate with vertical planks 118, which may also be referred to as “board and batten” or “plank and batten” siding, the lowermost region may vary from the exemplary horizontal friezes shown in FIG. 8. As illustrated, the vertical frieze 246 may be adapted to engage the upper edge of the vertical planks 118. The base flashing 246 may be provided in any suitable configuration adapted to raise the lower region of the frieze to about the same height as the upper region, which is raised from the building substructure by the support portion of the soffit flashing 230. For example, the base flashing 246 may include a head portion 236 comprising a support portion 234 similar to the previously discussed support portion of the plank flashing 228 and soffit flashing 230 members.

[0083] The base flashing 246 may be constructed of any suitable material or combination of materials and may be coupled to the exterior member 238 of the vertical frieze 246 in any suitable manner. As illustrated, some configurations of suitable vertical friezes 246 may be adapted to allow air flow from behind the exterior member 238 to ventilation channels 180 associated with the vertical planks 118.

[0084] The interaction of the vertical planks 118 and the base flashing 246 is similar to the interaction of the horizontal planks 116 and the plank flashing 228. For example, the base flashing 246 comprises a flange extension 308 which defines a plank channel 310 for engaging an upper end of a vertical plank 118. The flange extension 308 further provides protection to the channel end of the vertical plank 118 as well as provides an aesthetic shielding of any exposed fasteners 172. The flange extension 308 is further configured to provide a ventilation channel 180 as well as to provide adequate space to accommodate an end portion of a batten 254 as illustrated in FIG. 10.

[0085] While the physical dimensions of the horizontal frieze 226 and the vertical frieze 246 are the same, the interaction of base flashing 248 with the vertical frieze 246 is noticeably different from the interaction of the horizontal frieze 226 and the plank flashing 228. Of particular notice is the gutter 312 formed between an upward extension 314 of the flange extension 308 and the outer surface of the vertical frieze 246. As configured, the gutter 312 provides a channel for collecting water as well as provides an aesthetic shielding of the outer lip 284. It will also be noted that the base flashing 248 as illustrated in FIGS. 9 and 10 is configured without an extending head portion 282 as included with the plank flashing 228 in FIG. 8. As illustrated, the absence of an extended head portion 282 provides an additional ventilation channel 180 thereby aiding in the overall ventilation of the present lap siding system 112.

[0086] As configured in FIGS. 9 and 10, the vertical frieze 246 may be installed prior to the vertical planks 118 and the vertical planks 118 may be directed into a plank groove 310 at the bottom of the base flashing 248 during installation of the vertical planks 118. Similarly, in some installations of horizontal planks 116, it may be preferred to use a base flashing 248 in cooperation with a frieze board 226 rather than the plank flashing 228 described in connection with FIG. 8.

[0087] Referring now to FIG. 10, exemplary vertical planks 118 are shown within a portion of the lap siding system 112. Vertical planks 118 may be referred to as a “plank and batten” or “board and batten” siding system. In FIG. 10, the board or plank 250 is bordered on either side by a first and/or second batten 254, 256. The illustration of FIG. 10 is representative and exemplary of other vertical plank systems that are included in the present disclosure. Some aspects regarding suitable boards 250 and battens 254, 256 were previously described in the present applicant’s co-pending U.S. patent application Ser. No. 11/271,633, previously incorporated herein by reference. Additionally, as illustrated, the design of the outer surface 262 of the battens 254, 256 may vary within the aesthetic scope of the current invention. For example, in one embodiment batten 254 comprises a squared outer contour while batten 256 comprises a rounded outer contour.

[0088] As seen in FIG. 10, the battens 254, 256 may be coupled to the building substructure 100 by fasteners on at least one side thereof. In one method of installation, a first batten 254 may be fastened to the substructure 100 on one or both extensions 260 via an appropriate fastener 172. A first board 256 may then be slid into the plank channel 258 formed between the extension portion 260 of the first batten 254 and the exterior portion 262 of the first batten. A second batten 264 may then be disposed in relation to the other side of the first board 256. The second batten 264 may then be coupled to the substructure 100 (not shown) with fasteners on the still exposed extension portion 260, which in the illustrated version is on the right-most edge of the illustrated boards and battens. Subsequently, a second board 272 may be moved into
place relative to the second batten 256 and the installation process would continue until the desired exterior of the building is covered.

[0098] FIG. 10 further illustrates a board ventilation channel 268 provided behind the boards 250. As illustrated, the board ventilation channel 268 is thin, such as approximately the thickness of the extension portion 260 and support portion 192 of the battens 254, 256. In some embodiments, the board ventilation channels 268 may be between about 0.1 cm thick and about 0.5 cm thick. Alternatively or additionally, the battens 254, 256 may be adapted to provide board ventilation channels 268 sufficiently thick to avoid wicking moisture.

[0099] FIG. 10 further illustrates batten ventilation channels 268, which may be similar to the complementary ventilation channels 218 described above. Similar to the complementary ventilation channels 218 described above, the batten ventilation channels 268 may provide a ventilation channel between the upper ventilation channels in the building 100 (not shown), such as ventilation channels associated with the soffit and fascia elements, and the ambient air and/or ventilation channels at the lower end of the siding system 112. Accordingly, the batten ventilation channels 268 may facilitate air flow through and among the various board ventilation channels 266 and other ventilation channels 180.

[0100] With continuing reference to FIG. 10, the battens 254, 256 are illustrated as including a board stop member 270 extending inwardly from the exterior portion 262. Once the batten 254 and/or 256 is installed on a building, the board stop member 270 will extend inwardly from the exterior portion 262 a distance short of the distance between the exterior portion 262 and the flashing portion 260. Accordingly, the board stop member 270 may be configured to not interfere with the fluid communication between the batten ventilation channels 268 and the board ventilation channels 266. The board stop member 270 may be adapted to maintain a predetermined spacing between the edge of the board 250 and the internal framework of the battens 254, 256, thus maintaining a batten ventilation channel 266 of a predetermined size.

[0101] The board stop member 270 illustrated is optional but may be included to help ensure proper installation of the boards and battens to preserve the ventilation channels. In addition to use of the stop member 270 in conjunction with the battens 254, 256, suitable board stop members may be provided and/or incorporated into other members of the lap siding system 112. For example, the flashing of the corner trim member 122 may be adapted to provide a stop member configured to maintain the horizontal planks 114 a predetermined distance away from the head and support portions of the flashing, to thereby maintain a sufficiently-sized complementary ventilation channel 180. Similar adaptations may be made to the remaining flashings and relationships described herein and are within the scope of the present disclosure.

[0102] FIG. 10 further illustrates an optional configuration including an apron member 316 engaged with a lower region of the plank 118 and batten 256 system via an apron flashing 318. As illustrated, the apron member 316 comprises an upper portion 320 similarly configured to the upper portion 296 of the frieze member 224. Unlike the frieze member 224, the apron member 316 comprises a blunt lower portion 322 configured to dress a lower region of a building (not shown).

[0103] The apron flashing 318 may comprise any configuration suitable to adjoin the apron member 316 to the remainder of the lap siding system 112. As illustrated, the apron flashing comprises an extension portion 323 and a support portion 324, each utilized according to the prior discussion for attaching the apron flashing 318 to the building 100 (not shown) and providing ventilation throughout the lap siding system 100. Additionally, the apron flashing 318 comprises a plank channel 324 for compatibly receiving a lower portion of the lap siding system 112 components. Specifically, as shown in FIG. 10, the plank channel 324 is configured to receive a plank 118 and a batten 256 in a combined configuration.

[0104] The apron flashing 318 further comprises a head portion 326 similar to the head portion 236 of the soffit flashing 230. The head portion 326 comprises a tap feature 328 adapted to compatibly engage a groove 330 as formed on the outer surface of the upper region 320 of the apron member 316. Other features of the head portion 326 may include a gutter 312 for collecting and channeling heavy moisture, as well as flange 332 for directing heavy moisture away from the outer surface of the apron member 316.

[0105] While not specifically illustrated and discussed in the present disclosure, the remaining complementary members 120, including door trim members 124, window trim members 126, and other members that may be used in connection with the lap siding systems 112 may include flashings and other components adapted to improve the ventilation between the substructure of the building and the various components that comprise the exterior shell of the building.

[0106] For example, a trim clip (not shown) may be incorporated into the lap siding system 112 to provide ventilation as well as secure various complementary members 120 to the building 100. Use of a trim clip within the present system 112 is accomplished so as to eliminate the need for nails or other fasteners 172 to extend through the exterior surface of the complementary member 120. For example, a trim clip may be first attached to a building 100 with a fastener 172 and thereafter be attached to a complementary member 120 by an adhesive or other fastener that is aesthetically pleasing to the overall system 112.

[0107] Accordingly, and as introduced at the outset, the present disclosure is directed toward lap siding systems including planks and complementary members, at least one of which is adapted to provide and/or increase the ventilation between the planks and/or complementary members and the substructure of the building. It is believed that the disclosure set forth above encompasses multiple distinct inventions with independent utility. While each of these inventions has been disclosed in its preferred form, the specific embodiments thereof as disclosed and illustrated herein are not to be considered in a limiting sense as numerous variations are possible. The subject matter of the inventions includes all novel and non-obvious combinations and subcombinations of the various elements, features, functions and/or properties disclosed herein. The principles of the present disclosure may be embodied in other
specific forms without departing from its structures, methods, or other essential characteristics as broadly described herein.

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9. (canceled)
10. (canceled)
11. (canceled)
12. (canceled)
13. (canceled)
14. A ventilated siding system for covering a substructure, comprising:
    a plurality of complementary members;
    a plurality of flashing members for attaching the plurality of complementary members to the substructure; and
    a plurality of ventilation channels positioned between the plurality of complementary members, the plurality of flashing members and the substructure;
15. The siding system of claim 14, wherein the plurality of complementary members are combined in a modular fashion.
16. The siding system of claim 14, wherein the plurality of flashing members comprise at least one support member for providing at least one space between the plurality of complementary members and the substructure.
17. The siding system of claim 16, wherein the at least one space is a ventilation channel.
18. The siding system of claim 17, wherein the plurality of flashing members is fastened to the substructure, the plurality of flashing members thereafter coordinating the coupling of the plurality of complementary members to one another and to the substructure.
19. The siding system of claim 14, wherein the plurality of flashing members coordinates the coupling of the plurality of complementary members to a siding material.
20. The siding system of claim 14, wherein the siding system is fastened to the substructure with at least one concealed fastener.
21. The siding system of claim 14, wherein the siding system comprises a plurality of ventilation channels.
22. The siding system of claim 21, wherein the plurality of ventilation channels are in fluid communication.
23. The siding system of claim 14 wherein a gap is provided between at least two of said complementary members.
24. The siding system of claim 23 wherein the plurality of complementary members are positioned such that they can expand and contract with respect to one another.
25. A modular siding system providing a plurality of ventilation channels comprising:
    a plurality of complementary members;
    a plurality of flashing members for attaching the plurality of complementary members to a substructure; and
    a siding material;
    wherein the plurality of flashing members coordinate the coupling of the plurality of complementary members to the siding material such that the plurality of ventilation channels is positioned between the plurality of complementary members, the siding material and the substructure.
26. The modular siding system of claim 25, wherein the plurality of ventilation channels provides an air circulation path between the plurality of complementary members, the siding material and the substructure.
27. The modular siding system of claim 26, wherein the plurality of flashing members comprise at least one support member for providing at least one ventilation channel between the plurality of complementary members and the substructure.
28. The modular siding system of claim 27, wherein the siding system is fastened to the substructure with at least one concealed fastener.
29. The modular siding system of claim 25, wherein the plurality of ventilation channels are in fluid communication.

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