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Installation Guidelines

Recommended units for use in basement/crawlspace combinations

For basement/crawlspace combinations, if crawlspace (CS) is relatively small (less than 400 sq/ft) and the total basement/crawlspace area does not exceed 2,400 sq/ft, an HCS-BS myHome unit can be used if it can be located in close proximity to the access/vent to crawlspace (if there is no replenishment vent in the crawlspace, place replenishment vent at opposite end of basement from the unit).

If the crawlspace is larger, it is recommended a DVS-CS or HCS-CmH crawlspace unit (see table below) be used since they include a booster fan (BSF-150/BSF-150 myHome) to move replenishment air from the upper level to the basement or crawlspace.

If the access or vent to the crawlspace is located more than 48” above the basement floor, the booster fan should be used to pick up air at basement floor level to move it into the crawlspace. In this case a passive vent (or additional booster fan) can be used for replenishment air. It should be noted, however, that it is preferable to use the booster fan for replenishment air purposes. This will exhilarate the warming process of the basement and avoid negative pressure in the basement, which may, due to poor air sealing to the outside, results in direct outside air infiltration into the basement which could contribute to high basement humidity during the high humidity season.

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The basement being a livable area, deeper/cooler and thus more prone to condensation, should be addressed first and foremost.

Note: A DVS-CE or HCS-CmHBa unit is **preferred** for use in place of the DVS-CS/HCS-CmH/BSF-150 combination, installed similarly to the above, providing the inter-connecting wiring does not pose a problem.

The replenishment vent size and location are very important for these types of installations i.e. 10” x 10” min. or similar configuration for passive vents. Do not locate near central air intakes or A/C leads on the upper level and located as far away from the exhaust unit as possible and in a manner to allow air to properly move through the basement/crawl space, covering the largest area possible.

Basement max. sq.ft.	CS max. sq. ft.	Max. total Sq. ft.	basement/crawl space unit	BSF.	Comments
1,800 or less	Less than 25% of basement	2,400	HCS-BS myHome	n/a	Unit in basement. If total area is less than 1,200 sq. ft unit to be set to medium speed.
1,800 or less	More than 25% of basement	2,400	DVS-CS DVS-CH HCS-CmH	BSF-150	Unit in CS. BSF to bring replenishment air to basement. If total area is less than 1,200 sq. ft. DVS-CS/DVS-CH or HCS-CmH should be set to medium speed.
1,800 or less	More than 25% of basement	2,500	DVS-CH HCS-CmH	BSF-150	Unit in CS. BSF to bring replenishment air to basement

Note: For very small basements IE. 400 sq. ft or less, an DVS-CS/DVS-CH (installed in the crawlspace) maybe used alone (without BSF), if the CS Access/Vent is less than 48" above basement floor.

Placement/location of booster fans: The aesthetics of the booster fan and access to a suitably located upper-level floor vent for replenishment often represent an installation issue for finished basements. Before deciding whether the booster fan is to be used for replenishment air or to move air from the basement to the crawlspace, please consider if there is a suitable location for the booster/replenishment vent. These can be located in a utility room or unfinished part of basement to direct air into finished basement or by installing the booster fan in the crawlspace to direct air from upper level into the basement through the common wall. Keep in mind that the booster/replenishment vent should be located at the maximum possible distance from the crawlspace vent used for air to flow from the basement to the crawlspace. A distance of not less than 20 ft. should be adequate, as the warmer replenishment air is to be disbursed, see ***Appendix "P" Installation of Booster Fan,*** along the ceiling, whereas the exhaust vent to the crawlspace will be lower, to draw the cooler air from near floor level.

In case there is no suitable location, the booster fan can be used to move air from basement floor level (inlet to booster no more than 30" from floor for basements having an area of less than 600 sq. ft., for larger basements the intake should be moved closer to the floor) to the crawlspace. In this case a passive source of basement replenishment air will be needed, located as far as possible from the booster fan intake and allow for an unobstructed flow of air to the booster fan intake.

As basement/crawlspace combinations occur in a great variety of shapes, sizes, floor heights, location of combustible appliances etc., each should be reviewed on an individual basis. We suggest that the dealer use the following suggested questionnaire, to assist in obtaining all the pertinent information necessary for making a reasoned decision on how to proceed with the installation. Also, please follow installation instructions in the applicable basement/crawl space Owner Manuals.

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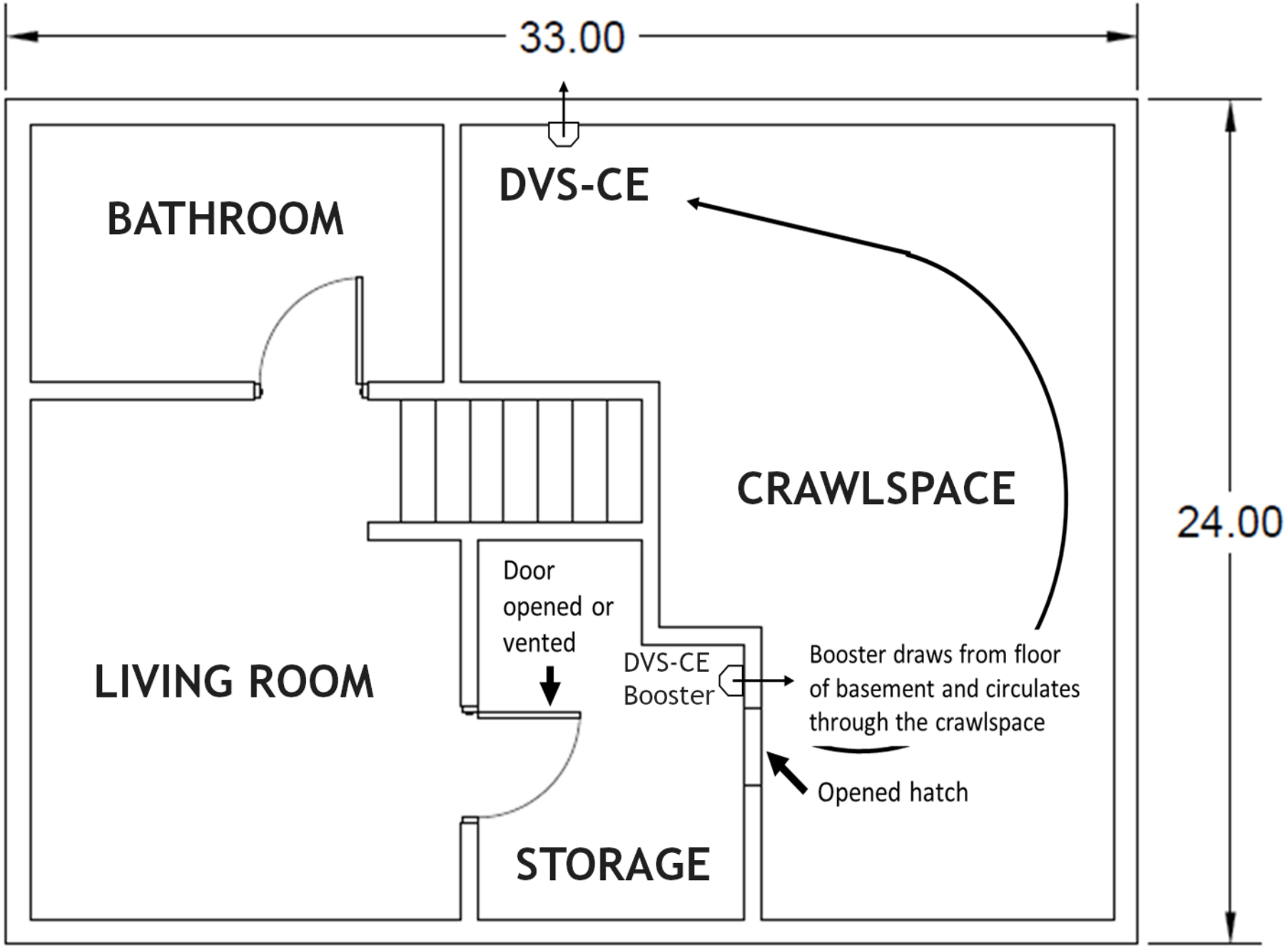
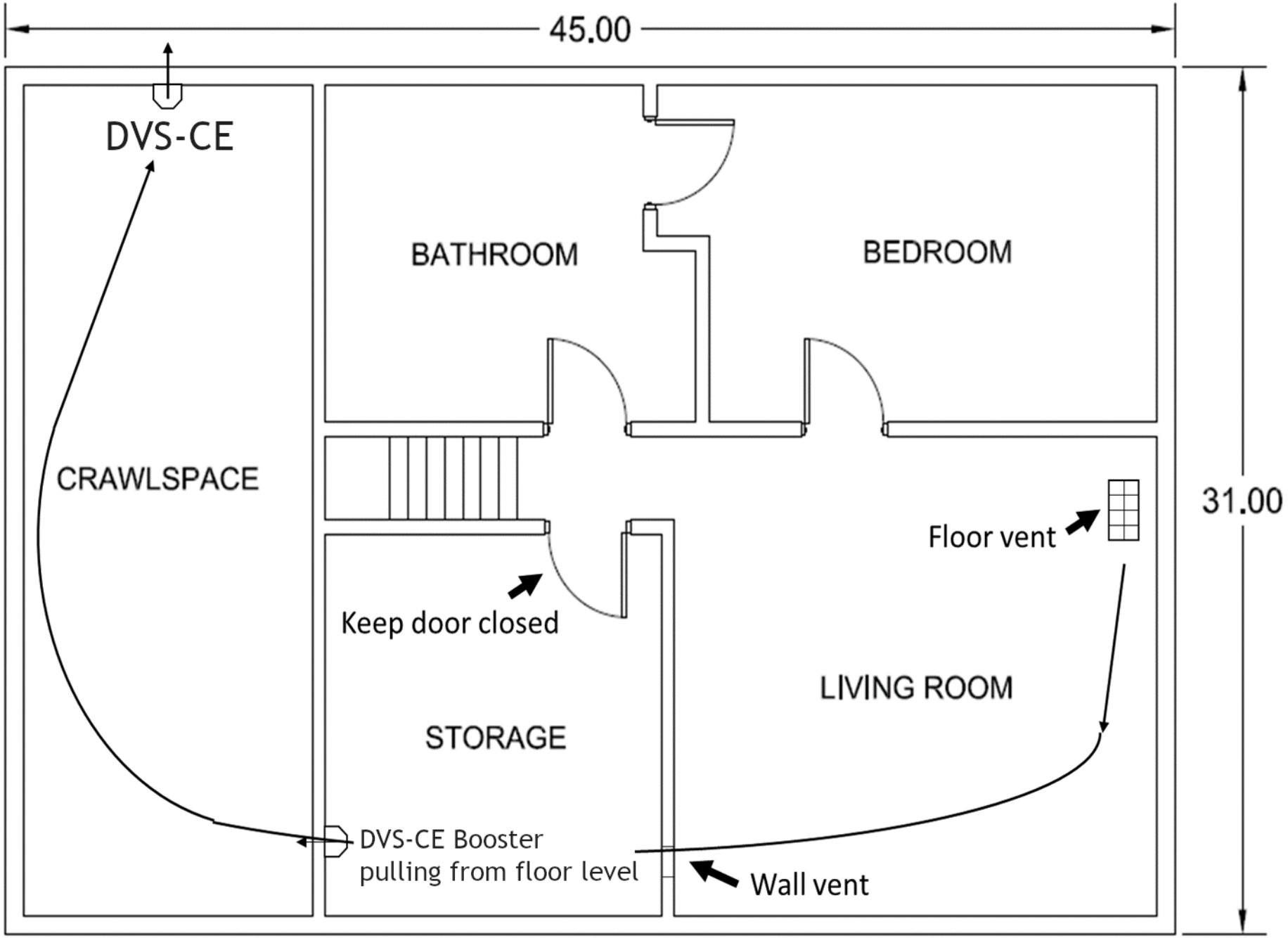
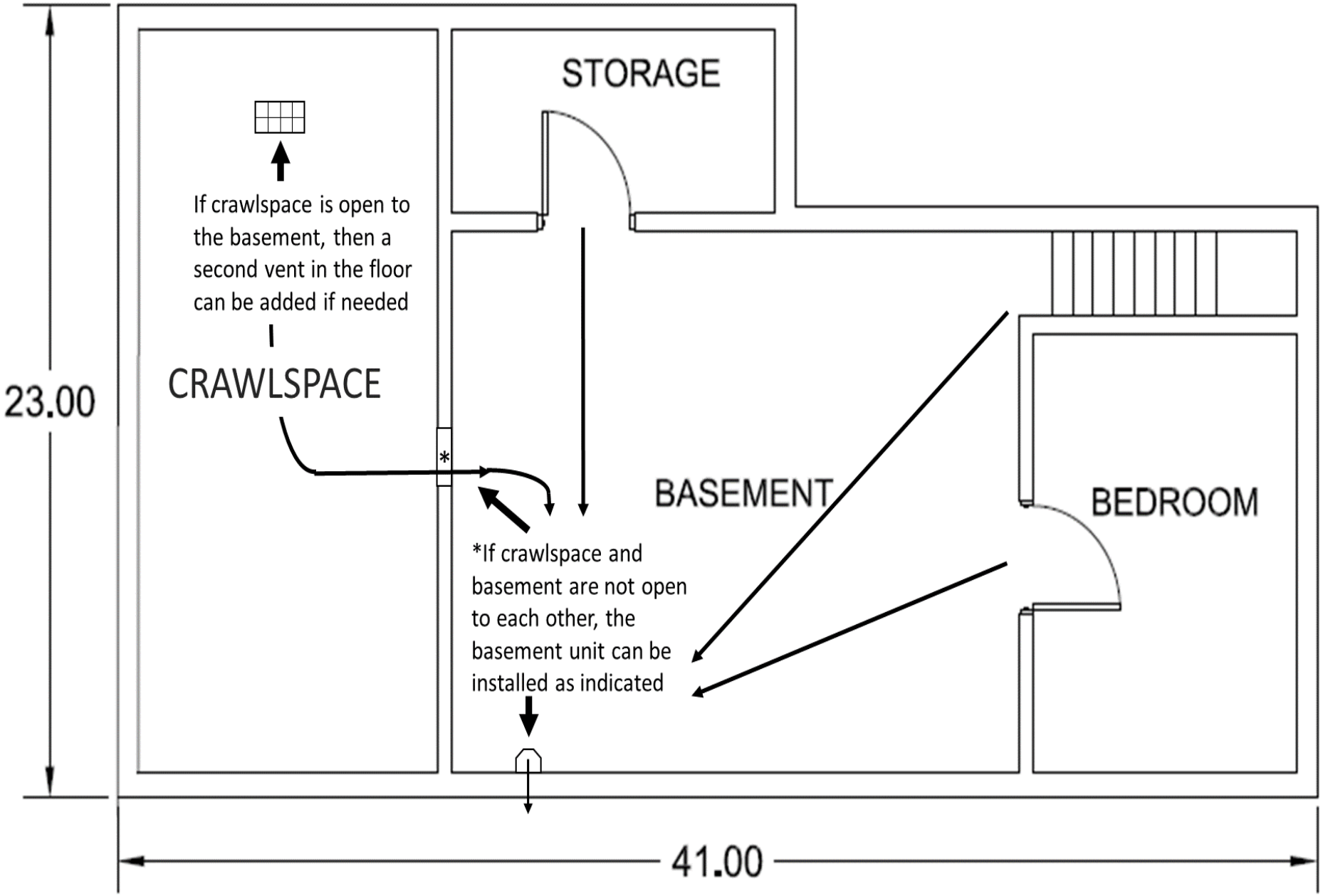
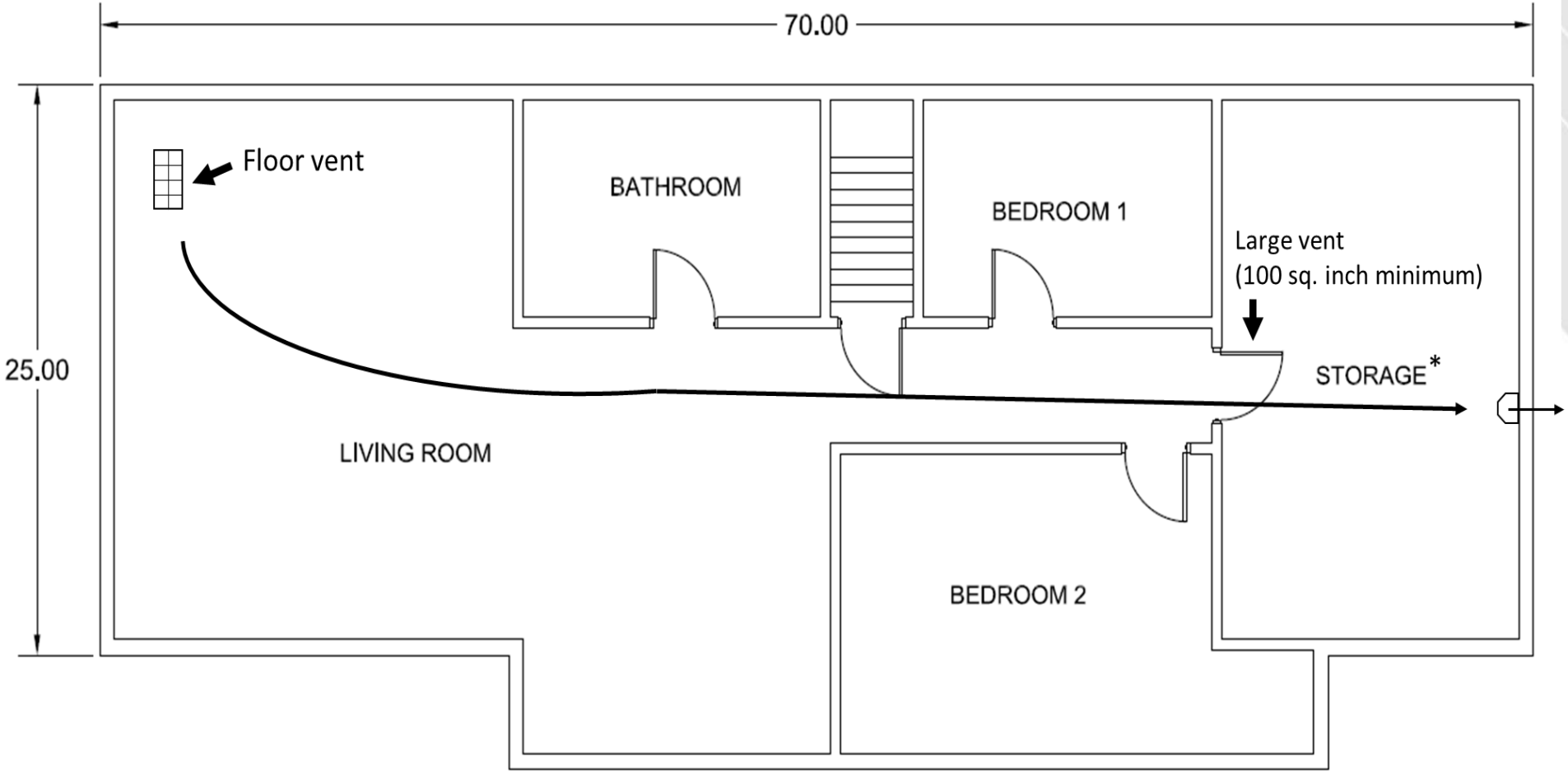

33.00
24.00
DVS-CE
BATHROOM
CRAWLSPACE
LIVING ROOM
Door
opened or
vented
DVS-CE
Booster
Booster draws from floor
of basement and circulates
through the crawlspace
Opened hatch
STORAGE


45.00
31.00
DVS-CE
BATHROOM
BEDROOM
CRAWLSPACE
Floor vent
Keep door closed
LIVING ROOM
STORAGE
DVS-CE Booster
pulling from floor level
Wall vent


STORAGE
If crawlspace is open to the basement, then a second vent in the floor can be added if needed
CRAWLSPACE
23.00
*
BASEMENT
BEDROOM
*If crawlspace and basement are not open to each other, the basement unit can be installed as indicated
41.00

*If problem area is in the storage room, the unit is to be located there.
The storage room door can be left open or a large vent can be installed (100 qu. Inch minimum).



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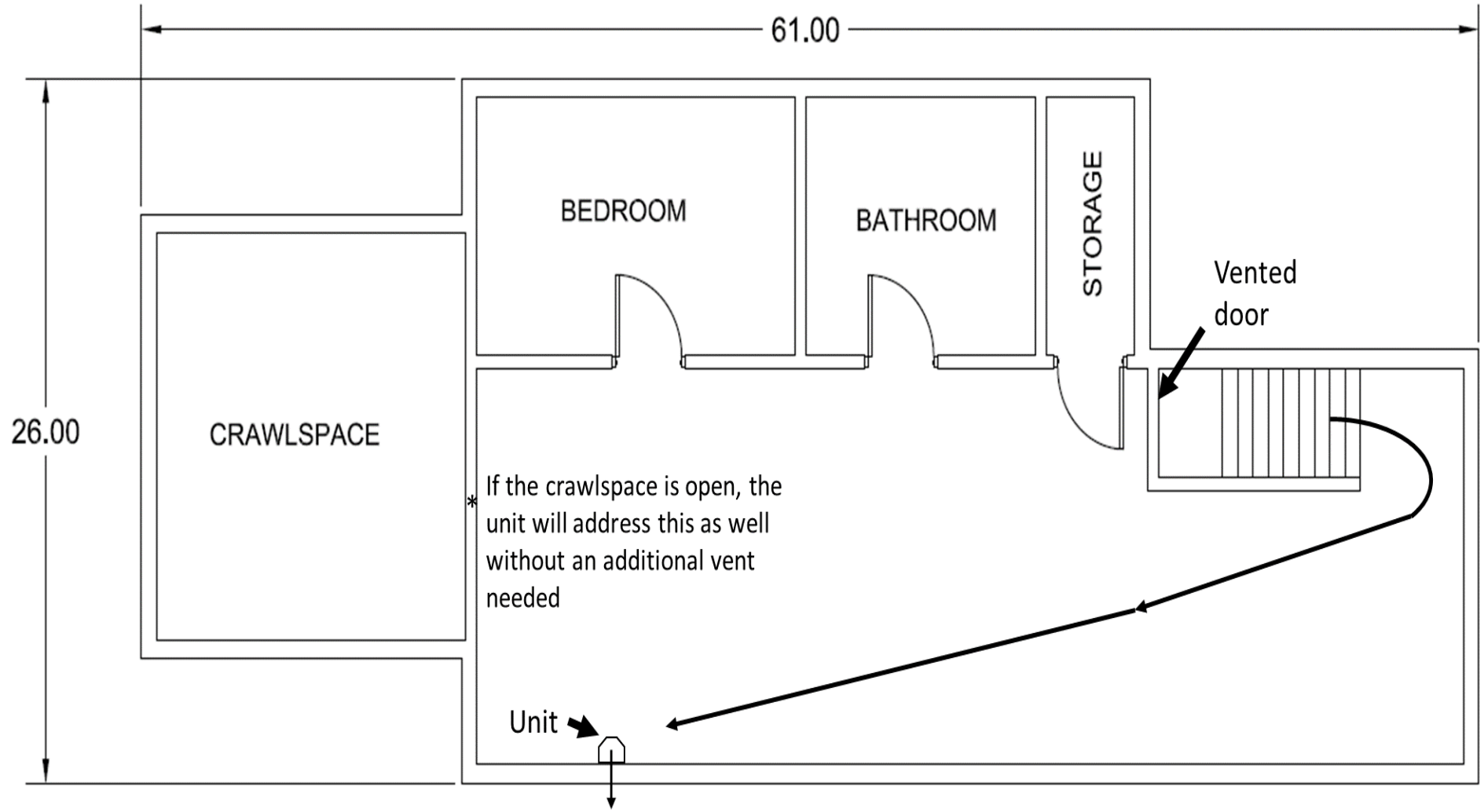

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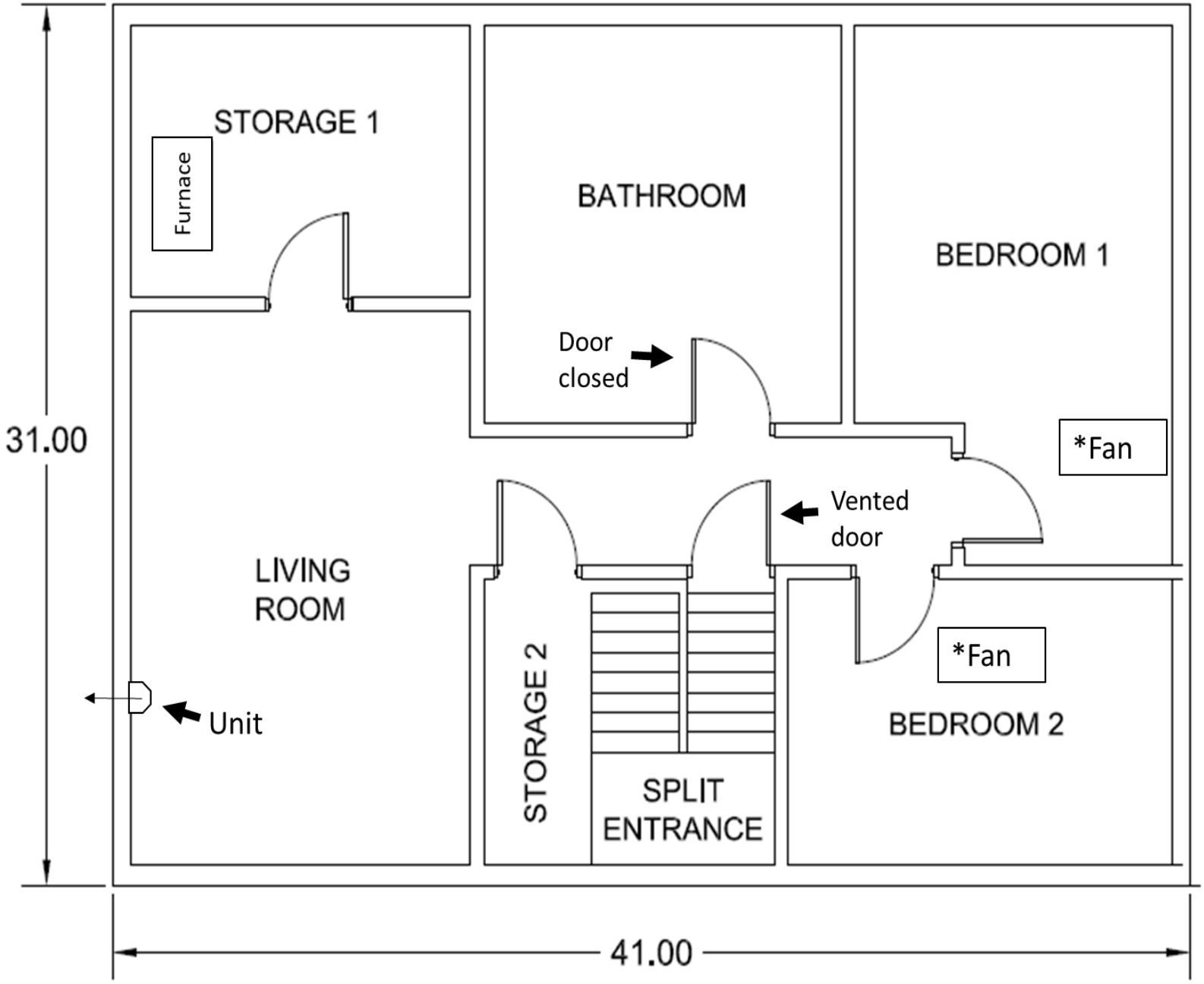
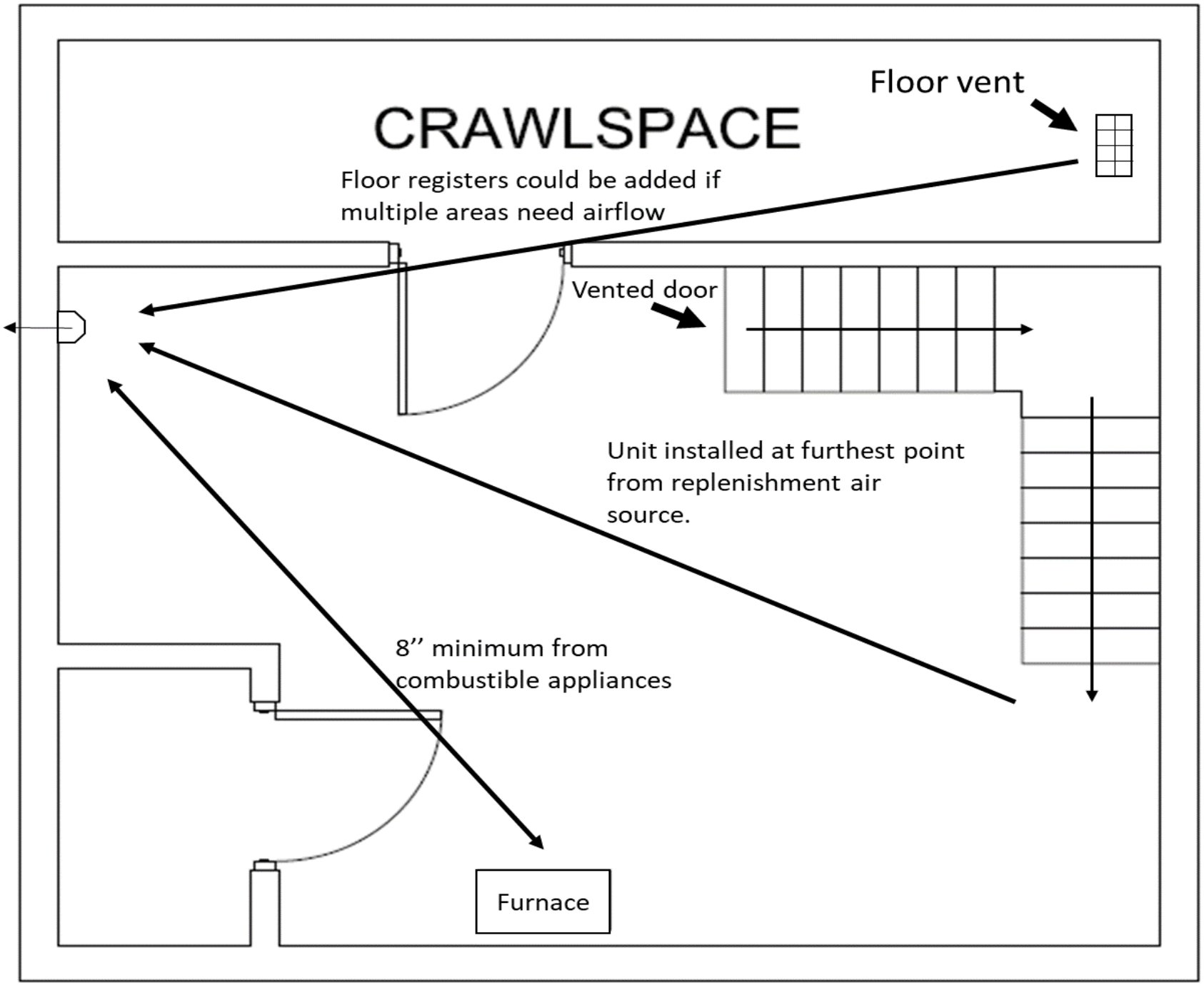
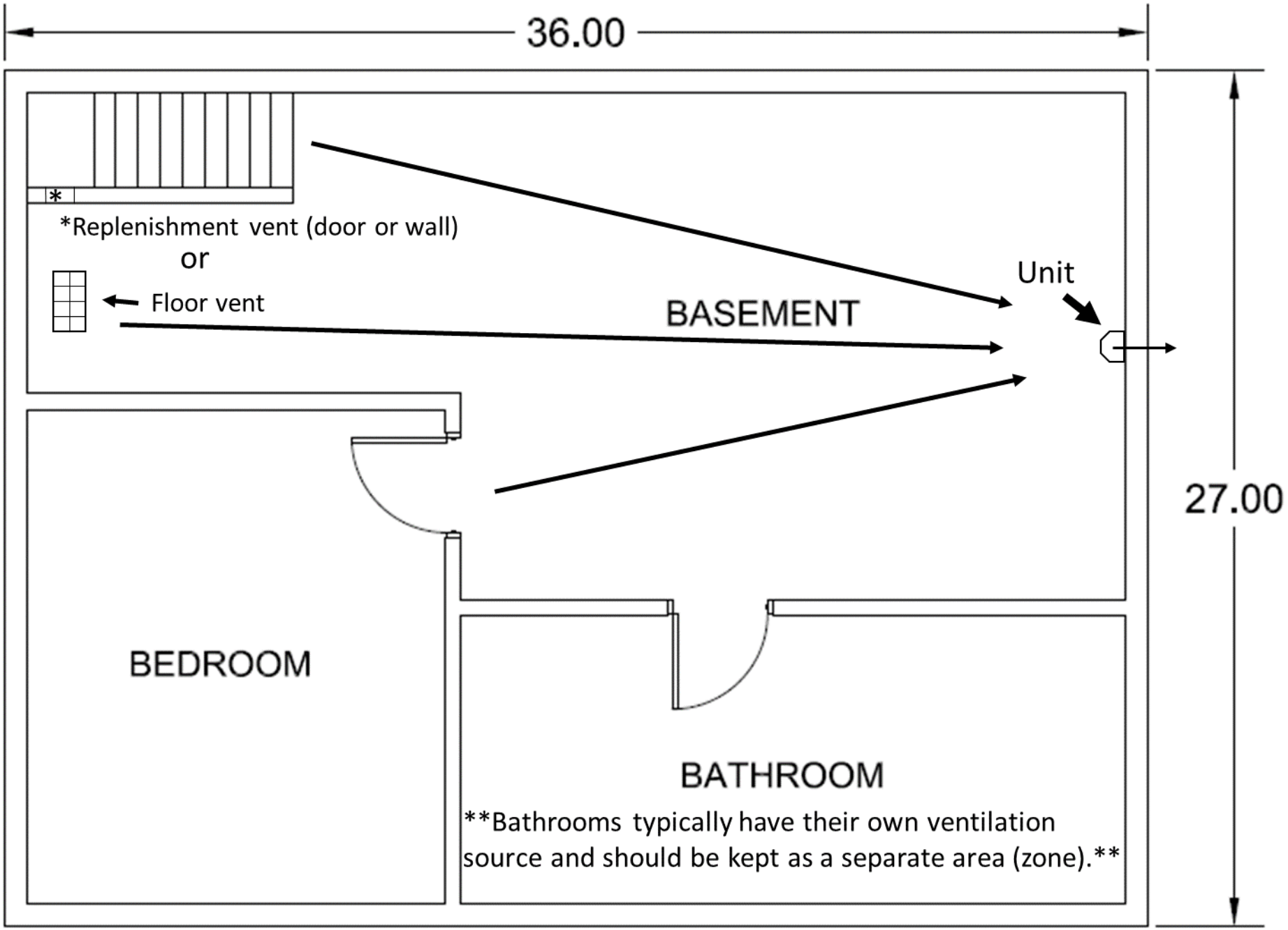


*Fans can be used in the bedrooms to circulate the air and blowing it out

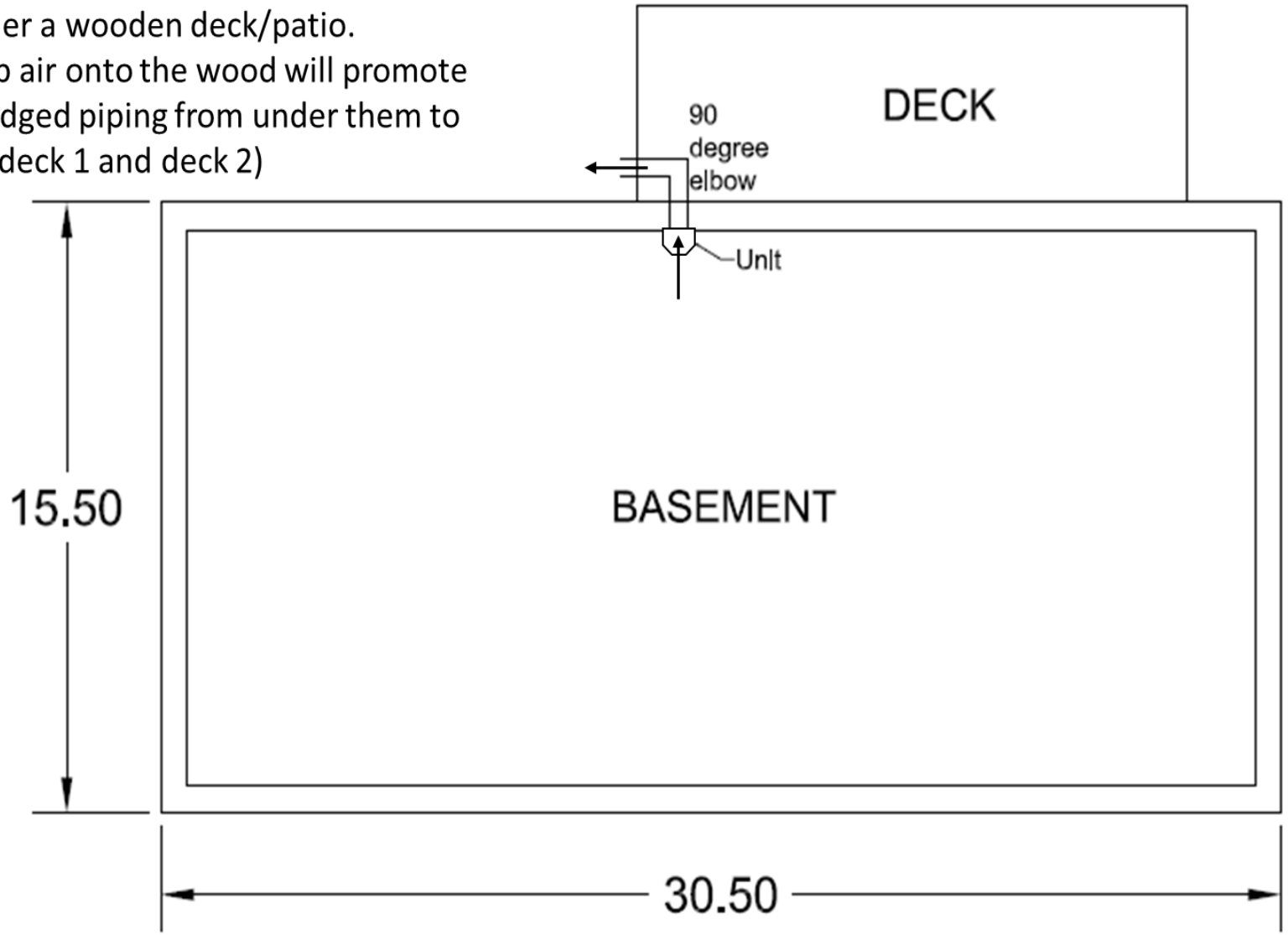
iTech ATIONS


CRAWLSPACE
Floor vent
Floor registers could be added if multiple areas need airflow
Vented door
Unit installed at furthest point from replenishment air source.
8'' minimum from combustible appliances
Furnace

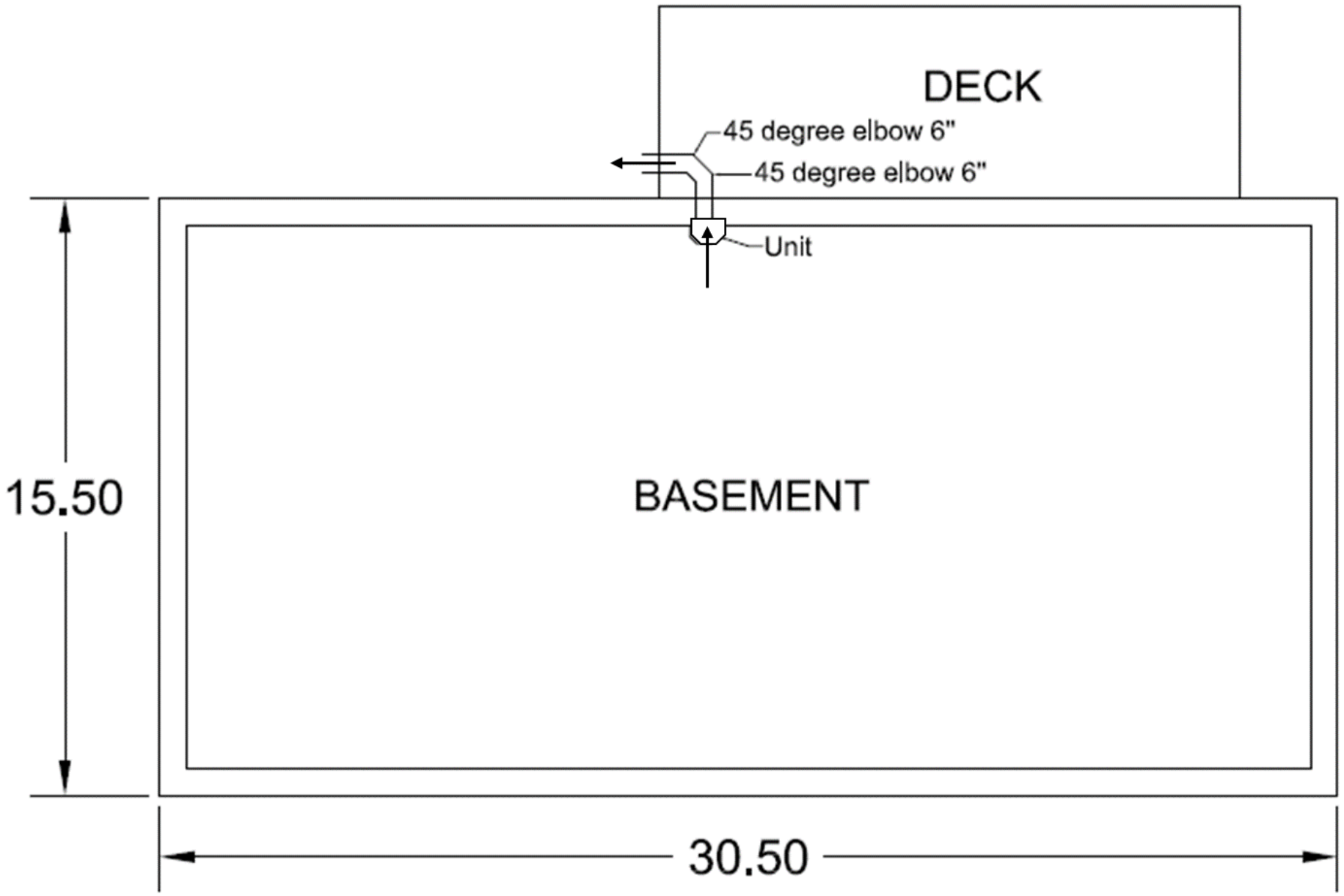

36.00
*Replenishment vent (door or wall)
or
Floor vent
Unit
BASEMENT
27.00
BEDROOM
BATHROOM
Bathrooms typically have their own ventilation source and should be kept as a separate area (zone).

Venting from under a deck 1

*You want to avoid, if at all possible, venting the unit directly under a wooden deck/patio. Exhausting damp air onto the wood will promote wood rot. Run ridged piping from under them to avoid that. (See deck 1 and deck 2)



Venting from under a deck 2



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