

Historic Ithaca X City of Ithaca Air Source Heat Pump Installation Design Guidelines



June - August 2023

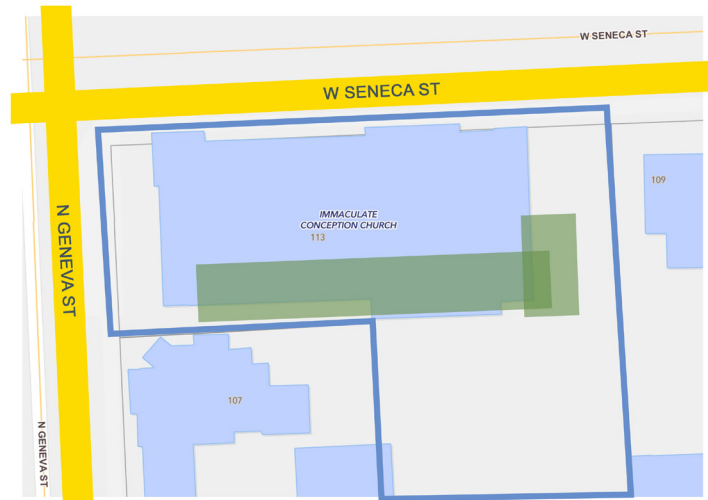
In response to the growing popularity of HVAC system conversion to Air Source Heat Pumps, these guidelines have been created in Ithaca's historic neighborhoods to preserve the character of these neighborhoods by specifying where utility components should be placed on the exterior. The goal is to avoid having outdoor units, pipelines, and water disposal pipes visible on the building's main façade or any primary elevations which often face the main streets to maintain their overall character.



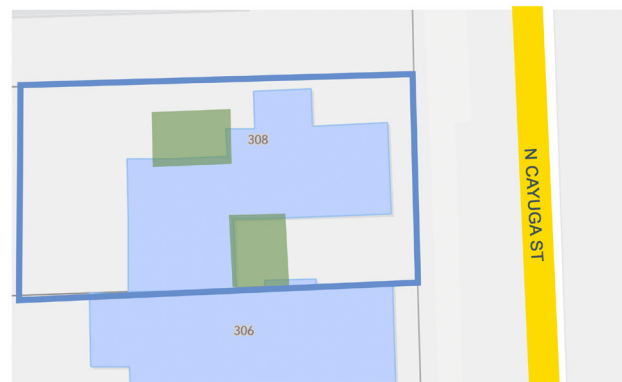
1. Stay Shaded

Avoid areas with direct sunlight exposure for cooling efficiency. Frequent heat exposure can prevent the unit from releasing heat to cool down the refrigerant.

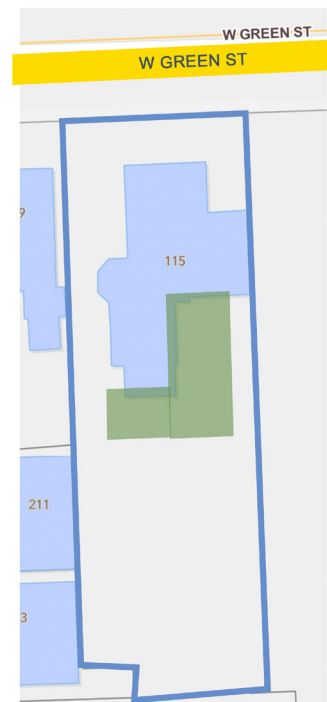
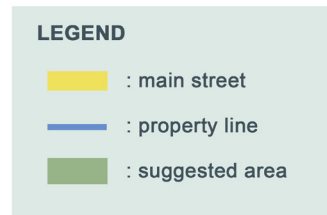
Place the outdoor unit on the side of the building that is **not facing the main street** or **tucked in** behind the bushes when options are limited. Neighboring buildings could provide the necessary shade to protect the unit. When the distance in between houses is too wide, consider **hiding the unit with greenery**.



Site plan of 113 N Geneva St



Site plan of 308 N Cayuga St



Site plan of 115 W Green St



No visible linehides; units are tucked in at the rear elevation of 113 N Geneva St



The front elevation is clear of line hides; units are partially covered with bushes at the rear elevation of 115 W Green St



No visible linehides; units are tucked in and are partially covered with bushes and set back from the front elevation of 308 N Cayuga St

2. Keep Dry

Avoid areas with frequent water exposure to prolong the equipment's service life. Units should be **raised on a platform** or **mounted on the wall or the roof**.



"raised on a platform"
at the rear elevation of 522 E State St



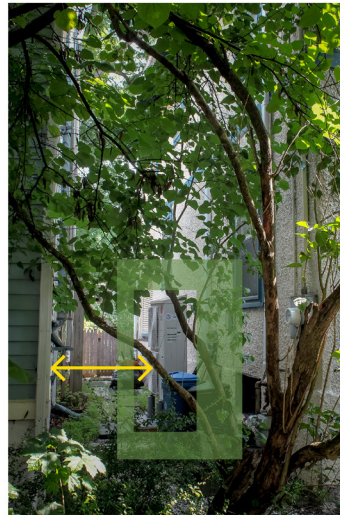
"mounted on the wall"
at the side elevation of 420 E Seneca St



"mounted on the roof"
at the rear elevation of 115 W Green St

3. Maintain Access

Units should **remain accessible** for maintenance purposes. Keep 2 to 3 feet of space for air flow and human circulation.



at the side elevation of
117 Cascadilla St



at the side elevation of
336 S Geneva St

4. Noise Caution

Since the outdoor unit will generate motor noise when units are in use, avoid placing them nearby frequently occupied areas or **covered with greenery** as buffer.



The side elevation of 418 E Seneca St



The side elevation of 109 Orchard Pl

5. Minimum Intervention

Avoid making new intervention to the building's existing structure by **utilizing its existing openings**. Utility features should be designed with consideration to the buildings' overall visual character. Line hides should not detract from the character defining features. Furthermore, any exterior **line hides should be painted** to match the color of the exterior wall.



The front elevation of 130 E Court St
"no visible line hides"



The side elevation of 130 E Court St
"visible line hides painted to match the exterior walls"



Conclusion

Avoid having outdoor units, line hides, and water disposal pipes as part of the building's façade. Utilities located on primary elevations would significantly impact the overall visual character of the building. The goal is to maintain the building's character-defining features and carefully consider the placement of any components. Additionally, interior spaces can be utilized for running line hides, such as the basement and the attic, including appropriate outdoor units selection to minimize exterior impact.



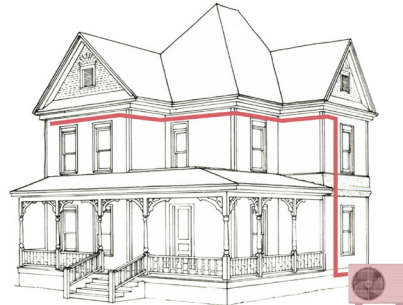
GREEK REVIVAL ✓



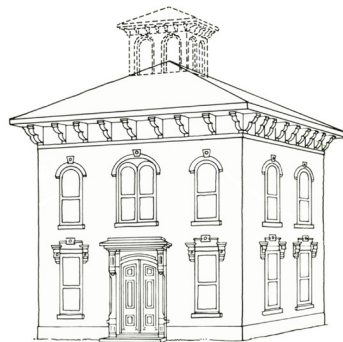
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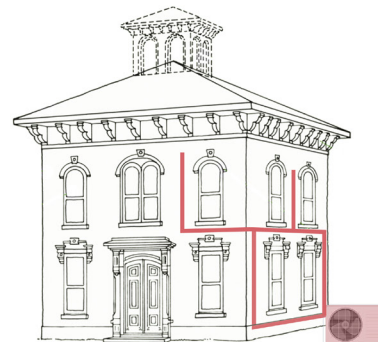
QUEEN ANNE ✓



QUEEN ANNE ✗



ITALIANATE ✓



ITALIANATE ✗

Illustration Credit: McAlester, Virginia, and A. Lee McAlester. *A Field Guide to American Houses*. New York: Knopf, 1984

List of Addresses

117 Cascadilla St
 130 E Court St
 418 E Seneca St
 420 E Seneca St
 522 E State St
 308 N Cayuga St
 113 N Geneva St
 109 Orchard Pl
 336 S Geneva St
 115 W Green St

References

McAlester, V. a. (1984). *A Field Guide to American Houses*. New York: Knopf.
 The City of Ithaca. (2013, May 14). Retrieved from
<https://www.cityofithaca.org/DocumentCenter/View/1582/Historic-District--Landmark-Design-Guidelines-PDF?bidId=>.

Credits

This guide is created by Henny Angkasa, a summer intern from Cornell University in 2023. Bryan McCracken from The City of Ithaca and Christine O'Malley from Historic Ithaca provided guidance during its production.

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