

#	Category	Objective / Task Description	Criteria	Document Required / Verification Method	Responsible Party	Program Phase	Defect Category	Reference
A1	Application	Program Eligibility Review	Document Review	Customer Utility Account	Participating Contractor / Utility Customer	Application	Required	
A2	Application	Initial Incentive Offer Review	Document Review	Engineering Analysis	Program Administrator / Implementation Contractor	Application	Required	
A3	Application	Verify Eligibility of Contractor	Document Review	Participating Contractor Network Database	Program Administrator / Implementation Contractor	Application	Required	PCN Database
D1	Design Doc't.	Verify Load Sizing Analysis Completed via completion of Load Sizing Checklist with attachment(s)	Document Review	ACCA Manual J, S, and D if applicable or other approved methodologies	Participating Contractor	Design	Required	Applicable State and local code
D2	Design Doc't.	Verify Design Documents / Construction Permit Application	Document Review	Approved construction documents / Letter of attestation	Participating Contractor	Design	Required	
D3	Design Doc't.	Confirm if Commissioning is a requirement of work.	Document Review	Site Observation / NYC ECC EN2/TR8 forms or equivalent	Participating Contractor	Design	Required	
D4	Design Doc't.	Confirm soil conductivity test has been performed to determine soil thermal values	Document Review	Approved construction documents	Participating Contractor	Design	Required	
D5	Design Doc't.	Verify that cooling and heating load of all existing equipment has been documented, along with make/model, fuel type, and equipment type.	Document Review	Approved construction documents	Participating Contractor	Design	Required	ACCA QLVP-2016 Appendix A 1.18, 1.19, 2.3.8, 2.3.9
C1	Equipment	Verify installed equipment is as proposed on application, quantity, make and model information	Document Review	Field Observation or Photo Documentation	Participating Contractor	Construction	Required	
C2	Equipment	Verify bore / well installation has been reviewed and is in accordance with approved design documents	Document Review	Approved construction documents and Field Observation or Photo Documentation	Participating Contractor	Construction	Major	
C3	Installation	Verify that safe access to the site and associated equipment has been provided	Situational Awareness	Site Observation	Participating Contractor	Construction	Critical	

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C4	Installation	Verify site conditions are consistent with Load Sizing Analysis or a revised energy analysis has been completed. Review of ACCA (Manual J, S, and D) or other approved heating and cooling calculation methodologies, with observed site conditions	Visual Observation / Document Review	Site Observation and/or NYC ECC EN2/TR8 forms or equivalent	Participating Contractor	Construction	Major	NYC DOB EN2: As Built Energy Analysis
C5	Installation	Verify maintenance log has been attached to heat pump unit and details loop field refrigerant content, type, and volume, loop location description, loop piping material, required maintenance schedule on loop field, refrigerant, and heat pump, planned decommissioned data and process	Visual Observation / Photo Documentation	Site Observation	Participating Contractor	Construction	Minor	
C6	Installation	Verify availability of documentation attesting to water flow test through the heat exchanger (pressure drop method, water temperature change method, or other OEM approved method).	Document Review	Approved construction documents and photo documentation	Participating Contractor	Construction	Minor	ACCA QLVP-2016 Appendix B Sec. 4.2
C7	Installation	Verify loop field design document containing loop and site plan, sizing report, pressure drop calculations, and min/max entering water temperature is consistent with design documents	Document Review	Approved construction documents / Letter of attestation	Participating Contractor	Design	Minor	
C8	Installation	Verify bore/well design documents containing proper spacing of the wells , site constraints and adequate thermal dispersion/well spacing is consistent with design documents	Document Review	Approved construction documents / Letter of attestation	Participating Contractor	Design	Minor	

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C9	Installation	Confirm that documents attesting to the acceptable type and concentration of antifreeze are available during site assessment.	Document Review	Approved construction documents / Letter of attestation	Participating Contractor	Design	Minor	CSA ANSI/CSA/IGSHPA C448 Series-16 1, sec. 5.7.1.1.2
C10	Installation	Verify electrical design documentation attesting to code compliance and are available during site assessment.	Document Review	Approved construction documents / Letter of attestation	Participating Contractor	Design	Minor	NEC 2017
C11	Installation	Verify that documents attesting that the quality of the water used in the ground loop is potable and available during site assessment.	Document Review	Approved construction documents	Participating Contractor	Design	Minor	CSA ANSI/CSA/IGSHPA C448 Series-16 1, sec. 3B
C12	Installation	Review the water temperature differential, pressure testing, and flow rates are documented	Document Review	Approved construction documents and photo documentation	Participating Contractor	Construction	Minor	
C13	Installation	Review report documenting proper flushing and purging procedures were performed	Document Review	Approved construction documents and photo documentation	Participating Contractor	Construction	Minor	CSA ANSI/CSA/IGSHPA C448 Series-16 1, sec. 1D
C14	Installation	Verify leakage test reports were furnished and are complete for ground heat exchanger piping, including pipe to well and surface water as applicable.	Document Review	Approved construction documents and photo documentation	Participating Contractor	Construction	Major	CSA ANSI/CSA/IGSHPA C448 Series-16 1, sec. 1E
C15	Installation	Verify cathodic protection on piping where applicable	Document Review	Photo Documentation	Participating Contractor	Construction	Major	
C16	Installation	Verify piping through wall surfaces included sleeving and perimeter sealed.	Document Review	Approved construction documents and photo documentation	Participating Contractor	Construction	Minor	
C17	Installation	Confirm manifold are consistent with design documentation	Document Review	Approved construction documents and photo documentation	Participating Contractor	Construction	Minor	

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C18	Installation	Verify documentation that condensate system was observed to be functional	Visual Observation / Photo Documentation	Site Observation / Photo Documentation	Participating Contractor	Construction	Major	
C19	Installation	Confirm that pressure testing and refrigerant charge is documented if applicable	Visual Observation / Photo Documentation	Site Observation / Photo Documentation	Participating Contractor	Construction	Major	
C20	Installation	Sample for refrigerant leaks at exposed field connections	Functional Test	Refrigerant detector	Participating Contractor	Construction	Major	
C21	Installation	Verify that exposed new or retrofitted ductwork is properly sealed and insulated	Visual Observation / Photo Documentation	Site Observation / NYC ECC EN2/TR8 forms or equivalent	Participating Contractor	Construction	Major	NYC 1RCNY 5000-01
C22	Installation	Verify refrigerant line set is insulated and protected from UV when outdoors	Visual Observation / Photo Documentation	Site Observation / Photo Documentation	Participating Contractor	Construction	Major	
C23	Installation	Verify the presence of equipment air filters if applicable	Visual Observation / Photo Documentation	Site Observation	Participating Contractor	Construction	Minor	
C24	Installation	Confirm all exposed equipment appears to be properly secured	Visual Observation / Photo Documentation	Site Observation	Participating Contractor	Construction	Major	
C25	Installation	Observe functional testing of equipment in both cooling and heating mode as conducted by contractor or operator, if conditions allow	Functional Test	Site Observation	Participating Contractor	Construction	Major	
C26	Installation	Verify proper strainer / particle removal is installed at heat pump inlet	Visual Observation / Photo Documentation	Site Observation	Participating Contractor	Construction	Minor	CSA ANSI/CSA/IGSHPA C448 Series-16 1, sec. 3A, 3C
C27	Installation	Verify that electrical disconnect is installed in an accessible location.	Visual Observation / Photo Documentation	Site Observation	Participating Contractor	Construction	Major	As referred to in the 2017 NEC Article 440.14
C28	Installation	Verify maintenance instructions are available on site	Visual Observation / Photo Documentation	Site Observation	Participating Contractor	Construction	Required	
ED1	Equipment - Desuperheater / WWHP (optional)	Verify temperature and pressure relief valve and discharge tube are installed on the pre-fill or water tank as required	Visual Observation / Photo Documentation	Site Observation	Participating Contractor	Construction	Major	
ED2	Equipment - Desuperheater / WWHP (optional)	Verify that shutoff and bypass valves are installed between the desuperheater and the hot water tank as required	Visual Observation / Photo Documentation	Site Observation	Participating Contractor	Construction	Major	

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ED3	Equipment - Desuperheater / WWHP (optional)	Verify water heater connections, tank, and heat exchanger (if applicable) are leak free	Functional Test	Site Observation	Participating Contractor	Construction	Major	
ED4	Equipment - Desuperheater / WWHP (optional)	Verify height difference between desuperheater unit and storage tank are within manufacturer specified limits	Visual Observation / Document Review	Site Observation	Participating Contractor	Construction	Major	
O1	Operation	Verify approval of work is compliant with applicable codes	Document Review	Cert. of Completion / CoO / Letter of Attestation	Participating Contractor	Occupancy	Required	
O2	Operation	Verify Manufacturer's Warranty has been provided to owner	Document Review	Manufacturers Warranty	Participating Contractor	Occupancy	Required	
O3	Operation	Confirm customer/ operator has been provided with training on operation of system.	Document Review	Site Observation / Customer Confirmation	Participating Contractor	Occupancy	Required	