



Office Use: Plan Review Control Number

Plan Review Input Form

PLEASE SEND WITH HOUSE PLAN AND LOAD CALC. TO:

Advanced Energy Corporation, Attention: Program Manager
909 Capability Drive Suite 2100, Raleigh, NC 27606
PH: 919-857-9000 FX: 919-832-2696 E-Mail: systemvision@advancedenergy.org

PLAN REVIEW AND ENERGY RATING

A Plan Review will be generated as a result of the building plans and information submitted to Advanced Energy. The Plan Review will include a heating and cooling energy-use projection based on recommended improvements to achieve the program standards. If you proceed with the SystemVision Home Program, the charge for the plan review is included in the per-house fee which is covered by the HFA grant. The turnaround time for the Plan Review is approximately three-weeks. Please provide us with all relevant information on this form.

NONPROFIT DEVELOPER:	_____	CONTACT:	_____
MAILING ADDRESS:	_____		
CITY/STATE/ZIP:	_____		
PHONE:	_____	FAX:	_____
E-MAIL ADDRESS:	_____	DATE OF TRAINING:	_____

CONSTRUCTION MANAGER/BUILDER

CONTACT: _____
COMPANY: _____
ADDRESS: _____
CITY/STATE/ZIP: _____
PHONE: _____
FAX: _____
MODULAR HOME
MODEL NAME/#: _____

LOCATION

SUBDIVISION: _____
PLAN NAME/NUMBER: _____
ADDRESS: _____
CITY/STATE: _____
ZIP CODE: _____
NEAREST MAJOR CITY: _____
(For weather data to calculate energy costs)

MECHANICAL CONTRACTOR

Company:	_____	Phone:	_____
Contact Person:	_____	Fax:	_____

INSULATION INSTALLER

General Contractor

Volunteers

Subcontractor: _____

Contact Person: _____

Phone: _____

Fax: _____

CLOSED CRAWL SPACE INSTALLER

General Contractor

Volunteers

Subcontractor: _____

Contact Person: _____

Phone: _____

Fax: _____

PLAN REVIEWS WILL BE DELAYED IF ANY INFORMATION BELOW IS MISSING.

ATTACHMENTS AND PLANS MUST INCLUDE:

- One full set of plans
- Floor plans with options
- Window specifications including type and dimensions
- Exterior door specifications including type and dimensions
- HVAC model numbers to be installed

For each house, a room-by-room Manual "J" heat loss/heat gain calculation will need to be completed to correctly size the heating and cooling equipment. To get this information, we (the applicant) will:

(check one)

Attach a copy of the Manual J print out, including all inputs and outputs and a completed Load Calculation Input Form (page five of this document)

Send in copy of the Manual J print out, including all inputs and outputs and a completed Load Calculation Input Form (page five of this document) to Advanced Energy. Review of load calculation must be complete in order to have an insulation inspection.

Pay Advanced Energy \$0.15 per square foot to perform this calculation. The Load Calculation Input Form (page five of this document) does not need to be completed.

ENERGY PROVIDERS

Electric Utility: _____

Phone: _____

Natural Gas Utility: _____

Phone: _____

Propane Company: _____

Phone: _____

Other Company: _____

Phone: _____

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HOUSE TYPE

Single Family Detached Duplex Townhouse: End unit Middle unit

FOUNDATION Check all applicable foundation types for this house

Slab on grade
 Full basement: Conditioned Unconditioned
 Walk-out basement: Conditioned Unconditioned
 Closed crawl space: Means of dehumidification: _____
 Open piers

THERMAL ENVELOPE

Attic Insulation	Insulation Type* _____	R-Value _____	*Refer to SystemVision
Exterior Wall Cavity Insulation	Insulation Type _____	R-Value _____	standards for minimum
Exterior Wall Continuous Insulation	Insulation Type _____	R-Value _____	insulation R-values for
Floor Insulation	Insulation Type _____	R-Value _____	your climate zone
Slab Insulation <input type="checkbox"/> Perimeter	Insulation Type _____	R-Value _____	
<input type="checkbox"/> Under-slab	_____	_____	
Crawl Space Wall Insulation	Insulation Type _____	R-Value _____	
Basement Wall Insulation	Insulation Type _____	R-Value _____	

* Insulation Types: (1) Fiberglass Batts (2) Blown Fiberglass (3) Blown Cellulose (4) Blown Rockwool (5) Rigid Foam (6) Spray Foam (7) Other: (specify in table above)

** https://up.codes/viewer/north_carolina/iecc-2009/chapter/3/climate-zones#3

FRAMING TECHNIQUES (Check all that apply)

Continuous Rigid Insulation 2x6 Exterior Walls Structural Insulated Panels Insulated Concrete Forms

WINDOWS

Program Standards

Double -paned/Low E glass Double-paned/ Low E
Whole-Window U-Value: _____ SHGC-Value: _____ U: 0.35 or Less, SHGC: 0.30 or Less

DOORS

<u>Location</u>	<u>Door Type*</u>	<u>Glazing</u>	<u>Thermal Performance</u>
Ex: Front	4	½ Glass	<input checked="" type="checkbox"/> R-value <input type="checkbox"/> U-value: 5
_____	_____	_____	<input type="checkbox"/> R-value <input type="checkbox"/> U-value: _____
_____	_____	_____	<input type="checkbox"/> R-value <input type="checkbox"/> U-value: _____
_____	_____	_____	<input type="checkbox"/> R-value <input type="checkbox"/> U-value: _____

* Door Types: (1) 1 3/4" wood solid core (2) 2 1/4" wood solid core (3) 1 3/4" wood panel (4) Steel-clad, polyurethane core & thermal break (5) Other: (specify in table above)

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DUCT SYSTEM LOCATION

- Crawl Space Attic Conditioned space Other: _____

VENTILATION

Program Standards

- Kitchen exhaust Duct Type* _____ CFM: _____ > 100 CFM to outside (Min rating of 120 CFM)
 Bathroom exhaust 1 Duct Type _____ CFM: _____ > 50 CFM to outside (Min rating of 70 CFM)
 Bathroom exhaust 2 Duct Type _____ CFM: _____ > 50 CFM to outside (Min rating of 70CFM)

* Duct Types: (1) Rigid metal (2) Rigid Metal w/ Insulation (3) Insulated flex duct

HVAC SYSTEM All systems must be sized within a ½ ton of the ACCA Manual J; see page 2.

Program Standards

- Heat pump, central system
 Efficiency: _____ SEER: _____ 8.8 HSPF, 15 SEER
- Furnace with central A/C
 Efficiency: _____ SEER: _____ 90% efficient, 15 SEER
- Other: _____
 Efficiency: _____ SEER: _____

HVAC SYSTEM LOCATION

- Attic Closed crawl space
 Conditioned space Garage
 Unconditioned basement Outside
 Other _____

DOMESTIC HOT WATER

- Type:** Conventional tank Other _____
Size: 40 gallon Other _____
Location: Attic Closed crawl space
 Conditioned space Garage
 Unconditioned
 basement Other _____

Program Standards

- Fuel & Efficiency** Electric Energy Factor (EF): _____ .93 UEF
 Natural gas Energy Factor: _____ .60 UEF (tank); .61 UEF (tankless)
 Propane Energy Factor: _____ .61 UEF
 Other



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Load Calculation Input Form (to be completed by HVAC contractor)

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LOAD CALCULATION REVIEW

Right-sized HVAC equipment is an integral part of the SystemVision program. For each plan submitted, Advanced Energy reviews an ACCA Manual J room-by-room load calculation for compliance with the program standards. Complete and submit this form along with the load calculation. Loads may be sent via e-mail as .pdf files or via fax or mail.

HVAC CONTRACTOR:	_____	CONTACT:	_____
PHONE:	_____	FAX:	_____
E-MAIL ADDRESS:	_____		
NON-PROFIT DEVELOPER:	_____	PLAN NAME:	_____

ATTACHED REPORTS MUST INCLUDE: *(for other software, please submit equivalent reports)*

Wright-Soft

Elite RHVAC

<input type="checkbox"/> Load Short Form <input type="checkbox"/> Building Analysis <input type="checkbox"/> Component Constructions <input type="checkbox"/> Project Summary <input type="checkbox"/> Worksheet <input type="checkbox"/> Drawings	<input type="checkbox"/> Project Report <input type="checkbox"/> Miscellaneous Report w/ Duct Load Factors <input type="checkbox"/> Load Preview Report <input type="checkbox"/> Total Building Summary Loads <input type="checkbox"/> Detailed Room Loads
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DESIGN SELF-REVIEW:

Input	Modeled Value	Standards/ACCA Recommendation
Indoor Design Temperature		70 Heating/75 Cooling/50% RH
Outdoor Design Temperature		99% Heating/1% Cooling per MJ8, Table 1A
Window U-Value		≤ .35
Window SHGC		≤.30
Wall R-Value		Consult builder
Ceiling R-Value		Consult builder, ≥ R-38
Floor R-Value		Consult builder
Infiltration		Tight or equivalent
Appliances		1 appliance recommended; maximum of 2
Occupants		Total = # of bedrooms + 1
Duct Tightness/Sealing		Extreme or equivalent
Duct Location		Consult builder
Ventilation		Total = (.01 x ft ²) + 7.5 (# of bedrooms + 1)

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