



**Providing accurate residential  
ACCA Manual J load calculations,  
Manual S equipment verification  
& Manual D duct designs since 2010**

**Call 970-218-7847 TODAY**

Complete Residential **ACCA Manual J** Load Calculations,  
**ACCA Manual S Equipment Verification** and **ACCA Manual D**  
Duct Design Services

ALL 50 States - [www.JSDHVACDesigns.com](http://www.JSDHVACDesigns.com)



**If form is in “Protected Mode”, please click the “Enable Editing” button and save  
If unsure how to fill out the form below, please see our how-to video on our website**



Hartley Design Group  
[www.JSDHVACDesigns.com](http://www.JSDHVACDesigns.com)  
 Telephone: (970) 587-8937  
 e-mail: [Joe@JSDHVACDesigns.com](mailto:Joe@JSDHVACDesigns.com)

| Type of Service:   | Select all that apply    |
|--|--------------------------|
| Manual J Load Analysis   | <input type="checkbox"/> |
| Manual S Equipment Verification – <b>Required by MOST Permit Offices</b>         | <input type="checkbox"/> |
| Manual D Duct Design – Includes Manual T   | <input type="checkbox"/> |
| REScheck Compliance Report <b>\$100/per report</b>                               | <input type="checkbox"/> |
| Residential Plans Examiner Review Form & Friction Worksheet <b>\$50/per HVAC</b> | <input type="checkbox"/> |
| <b>STANDARD</b> Service: <b>10 Day</b> Turnaround <b>\$75/hour</b>               | <input type="checkbox"/> |
| <b>PRIORITY</b> Service: <b>5 Day</b> Turnaround <b>\$125/hour</b>               | <input type="checkbox"/> |

**\*\*NOTE:** Full pricing brackets located on page 8 of this submission form, note additional pricing for Mini-Splits

| Submitter: |   |
|------------|---|
| Name:      | <a href="#">Click here to enter text.</a> |
| Company:   | <a href="#">Click here to enter text.</a> |
| E-mail:    | <a href="#">Click here to enter text.</a> |
| Telephone: | <a href="#">Click here to enter text.</a> |

| Size of Residence in sq. ft | < 1,499 sq. ft           | 1,500-3,499              | 3,500-4,999              | 5,000-6,499              | 6,500-7,999              | 8,000-10,000             | >10,000 sq. ft           |
|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Conditioned Space           | <input type="checkbox"/> |

**\*\*NOTE:** Unfinished areas are part of the conditioned sqft if within the thermal envelope

**BEFORE** Hartley Design Group will begin ANY project, we MUST receive:

1. Completed Manual J, S & D Project Submission Form
2. Floor plans, section cuts with insulation R-values, elevations, window & door schedules
3. Once items 1 & 2 above are received, Hartley Design Group will send an invoice to the email **entered** on the Project Submission Form. **Payment** must be received before work will begin.



## Hartley Design Group Client Agreement\* see pg 9

|                          |  |
|--------------------------|--|
| <input type="checkbox"/> | <b>*Check here</b> that you have <b>read &amp; agree</b> to the Hartley Design Group Client Terms and Conditions |
|--------------------------|--|

|                                    |                           |
|------------------------------------|---------------------------|
| <b>Project Information:</b>        |                           |
| Project Name (ex: Smith Residence) | Click here to enter text. |
| Project Address:                   | Click here to enter text. |
| Project City:                      | Click here to enter text. |
| Project State:                     | Click here to enter text. |
| Project Zip code:                  | Click here to enter text. |

| <b>Zones &amp; Duct Locations</b> |                 |                 |                 |                 |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|
| HVAC System                       | HVAC 1          | HVAC 2          | HVAC 3          | HVAC 4          |
| <b>DUCT Location</b>              | Choose an item. | Choose an item. | Choose an item. | Choose an item. |
| <b>Area HVAC Services</b>         | Choose an item. | Choose an item. | Choose an item. | Choose an item. |
| <b>Other Zoning Info</b>          | Enter Text Here | Enter Text Here | Enter Text Here | Enter Text Here |

**\*\*NOTE:** An attic is encapsulated if the insulation runs along the roof pitch/deck above the duct, conditioned attic is encapsulated insulation with supply registers supplying air to the attic

|   |   |
|---|---|
| <b>Which way does Front of Building face?</b> | <b>Which way does FRONT DOOR face? (if different than building)</b> |
| Choose an item.                               | Choose an item.   |

|                 |                 |                                      |
|-----------------|-----------------|--------------------------------------|
| # of Bedrooms   | # of Stories    | # of Fireplaces – <b>Exclude Gas</b> |
| Choose an item. | Choose an item. | Choose an item.                      |

**Exclude GAS Fireplaces. Only add WOOD Burning Fireplaces**

**If attic, crawlspace or basement are conditioned, please include floor plans**

|                 |                 |                    |                    |                    |                 |
|-----------------|-----------------|--------------------|--------------------|--------------------|-----------------|
| Crawlspace      | Bsmt/Cellar     | 1 <sup>st</sup> FL | 2 <sup>nd</sup> FL | 3 <sup>rd</sup> FL | Attic           |
| Choose an item. | Choose an item. | Choose an item.    | Choose an item.    | Choose an item.    | Choose an item. |

|  |                 |
|--|-----------------|
| Outdoor Fresh Air Ventilation Source (per code): |                 |
| Select One                                       | Choose an item. |

## Construction Materials

| <b>New Roof:</b> | Flat or Sloped  | Vented or unvented attic | Roof Material   | Roof Color      | Insulation R-Value | Roofline or Cavity | Ceiling Finish  |
|------------------|-----------------|--------------------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Select Options   | Choose an item. | Choose an item.          | Choose an item. | Choose an item. | Choose an item.    | Choose an item.    | Choose an item. |

| <b>Existing Roof:</b> | Flat or Sloped  | Vented or unvented attic | Roof Material   | Roof Color      | Insulation R-Value | Roofline or Cavity | Ceiling Finish  |
|-----------------------|-----------------|--------------------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Select Options        | Choose an item. | Choose an item.          | Choose an item. | Choose an item. | Choose an item.    | Choose an item.    | Choose an item. |

**\*Roofline Insulation** is installed along the roof pitch, **Cavity Insulation** is installed horizontally on/in the attic floor trusses

|                           |                           |
|---------------------------|---------------------------|
| <b>Roof: Other Info</b>   | Click here to enter text. |
| Click here to enter text. |                           |

| Ceiling Heights<br>(Identify any cathedral ceilings) | Basement                  | 1 <sup>st</sup> Floor     | 2 <sup>nd</sup> Floor     | 3 <sup>rd</sup> Floor     | Attic                     | Other                     |
|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
|  | Click here to enter text. |

| <b>New Walls:</b> | Framing         | Exterior        | Exterior Insulation | Cavity Insulation | Interior Finish |
|-------------------|-----------------|-----------------|---------------------|-------------------|-----------------|
| Select Options    | Choose an item. | Choose an item. | Choose an item.     | Choose an item.   | Choose an item. |

| <b>Existing Walls:</b> | Framing         | Exterior        | Exterior Insulation | Cavity Insulation | Interior Finish |
|------------------------|-----------------|-----------------|---------------------|-------------------|-----------------|
| Select Options         | Choose an item. | Choose an item. | Choose an item.     | Choose an item.   | Choose an item. |

|                           |                           |
|---------------------------|---------------------------|
| <b>Walls: Other Info</b>  | Click here to enter text. |
| Click here to enter text. |                           |

| Basement/Below Grade Wall – <b>if conditioned</b> | Framing         | Exterior        | Exterior Ins.   | Structure Type  | Thickness       | Cavity Insulation | Interior Finish |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-----------------|
| Select Options                                    | Choose an item.   | Choose an item. |

|                                  |                           |
|----------------------------------|---------------------------|
| <b>Basement Wall: Other Info</b> | Click here to enter text. |
| Click here to enter text.        |                           |

| <b>Slab Floors:</b> | Slab Insulation Information |                 | Insulation R-Value |
|---------------------|-----------------------------|-----------------|--------------------|
| Select Options      | Choose an item.             | Choose an item. | Choose an item.    |

|                           |                           |
|---------------------------|---------------------------|
| <b>Floors: Other Info</b> | Click here to enter text. |
| Click here to enter text. |                           |

| <b>Floors over unconditioned space</b> | Structure Type  | Over Unconditioned | Structure Thickness | Insulation R-Value |
|--|-----------------|--------------------|---------------------|--------------------|
| Select Options                         | Choose an item. | Choose an item.    | Choose an item.     | Choose an item.    |

|                                   |                           |
|-----------------------------------|---------------------------|
| <b>Basement Floor: Other Info</b> | Click here to enter text. |
| Click here to enter text.         |                           |

| <b>New Windows:</b><br><b>INCLUDE DIMENSIONS</b> | Pane Thickness  | Frames          | U-Values                  | SHGC Values               | Low-e           | Air/Argon       |
|--|-----------------|-----------------|---------------------------|---------------------------|-----------------|-----------------|
| Select Options                                   | Choose an item. | Choose an item. | Click here to enter text. | Click here to enter text. | Choose an item. | Choose an item. |

| <b>Existing Windows:</b><br><b>INCLUDE DIMENSIONS</b> | Pane Thickness  | Frames          | U-Values                  | SHGC Values               | Low-e           | Air/Argon       |
|---|-----------------|-----------------|---------------------------|---------------------------|-----------------|-----------------|
| Select Options  | Choose an item. | Choose an item. | Click here to enter text. | Click here to enter text. | Choose an item. | Choose an item. |

|  |                           |
|--|---------------------------|
| <b>Windows: Other Info, include existing windows details</b> | Click here to enter text. |
| Click here to enter text.                                    |                           |

| <b>Exterior Doors:</b><br><b>INCLUDE SCHEDULE</b> | Type            | French Doors    | Glass Slider    |
|---|-----------------|-----------------|-----------------|
| Select Options                                    | Choose an item. | Choose an item. | Choose an item. |

|  |                           |
|--|---------------------------|
| <b>Doors: Other Info, include existing doors</b> | Click here to enter text. |
| Click here to enter text.                        |                           |

**If you do not know the equipment you will be purchasing, the below is left blank:**

**HVAC Equipment Already Installed? Choose an item.**

**Will there be any radiant heat such as baseboards or heated flooring? Choose an item.**

**Ok To Upsize or Downsize HVAC Equipment to Pass ACCA Manual S? Choose an item.**

**Will you be installing Mini-Splits? Choose an item.**

| <b>Type of Conditioning:</b>  |  | <input type="text" value="Choose an item."/> |  |  |
|---|--|--|--|--|
| INCLUDE Make & Model of Coil(s), Condenser(s), furnace(s)/boiler(s) & AHRI Certificate for Manual S Equipment Selection, HDG will size as needed to adhere to Manual S sizing rules |  |  |  |  |
| Cooling Equipment   | Make/Brand                                   | Coil Model                                   | Condenser Model                              | AHRI #                                       |
| HVAC 1  | <input type="text" value="Enter Text Here"/> |
| HVAC 2  | <input type="text" value="Enter Text Here"/> |
| HVAC 3  | <input type="text" value="Enter Text Here"/> |
| HVAC 4  | <input type="text" value="Enter Text Here"/> |
| Heating Equipment   | Make/Brand                                   | Furnace/Boiler Model                         | kW Strip Model                               | AHRI #                                       |
| HVAC 1  | <input type="text" value="Enter Text Here"/> |
| HVAC 2  | <input type="text" value="Enter Text Here"/> |
| HVAC 3  | <input type="text" value="Enter Text Here"/> |
| HVAC 4  | <input type="text" value="Enter Text Here"/> |

1. If known, provide make/model of indoor coil(s), outdoor condenser(s) or heat pump(s), furnace(s), boiler(s) & electric strip(s) and we can size accurately.
2. If the HVAC make/model is unknown: The Manual J will be sent for equipment selection. ***We cannot select equipment for you!***

We will use the OEM performance data to create the ACCA Manual S compliance report based on your specific design conditions including derations for high altitude designs.

### **ACCA Manual S & EnergyStar Sizing Rules:**

- AC cooling equipment should be sized at **95-115%** of Design Total Heat Gain, or the next nominal size that is available to satisfy the latent and sensible requirements.
- Heat pump cooling equipment should be sized at **100-115%** (cooling dominant climate) or **100-125%** (heating dominant climate) of Design Total Heat Gain, or the next nominal size that is available to satisfy the latent and sensible requirements unless a larger size is dictated by the heating equipment selection.
- Listed Output Heat Capacity must be sized at **100-140%** of Design Total Heat Loss, or next nominal size unless a larger size is dictated by the cooling equipment selection.

If you purchased a Manual J load calculation and **DO NOT** need a Manual D duct design, do not complete the following Manual D section.

Manual D Duct Design Information

**HVAC System Configuration: Choose an item.**

| SUPPLY Duct Information |  |  |  |  |  |
|-------------------------|--|--|--|--|--|
|                         | Register Location                            | Main Trunk Material                          | Main Trunk Sizes                             | Branch Material                              | Branch Sizes                                 |
| HVAC 1                  | <input type="text" value="Choose an item."/> |
| HVAC 2                  | <input type="text" value="Choose an item."/> |
| HVAC 3                  | <input type="text" value="Choose an item."/> |
| HVAC 4                  | <input type="text" value="Choose an item."/> |
| Additional Information  |  | Enter Text Here                              |  |  |  |
| Additional Information  |  | Enter Text Here                              |  |  |  |

| RETURN Duct Information |  |  |  |  |  |
|-------------------------|--|--|--|--|--|
|                         | Register Location                            | Main Trunk Material                          | Main Trunk Sizes                             | Branch Material                              | Branch Sizes                                 |
| HVAC 1                  | <input type="text" value="Choose an item."/> |
| HVAC 2                  | <input type="text" value="Choose an item."/> |
| HVAC 3                  | <input type="text" value="Choose an item."/> |
| HVAC 4                  | <input type="text" value="Choose an item."/> |
| Additional Information  |  | Enter Text Here                              |  |  |  |
| Additional Information  |  | Enter Text Here                              |  |  |  |

**NOTE: Manual J** assumes any zone dampers are fully open - zone dampers do impact the duct sizes

**Dampers Installed? Choose an item.**

**Duct Already Installed? Choose an item.**

If duct already installed, please send a detailed sketch showing the sizes and location of all registers, trunks, and branches for both the supply and return side of the system.

## Manual J, Manual S, & Manual D Pricing Brackets

### ACCA MANUAL J LOAD CALCULATION PRICING

| SIZE OF RESIDENCE    | # of HOURS     | STANDARD (\$75/hour) | PRIORITY (\$125/hour) |
|----------------------|----------------|----------------------|-----------------------|
| < 1,499 sq ft        | 1.0 hours      | \$75                 | \$125                 |
| 1,500 - 3,499 sq ft  | 2.0 hours      | \$150                | \$250                 |
| 3,500 - 4,999 sq ft  | 3.0 hours      | \$225                | \$375                 |
| 5,000 - 6,499 sq ft  | 4.0 hours      | \$300                | \$500                 |
| 6,500 - 7,999 sq ft  | 5.0 hours      | \$375                | \$625                 |
| 8,000 - 10,000 sq ft | 8.0 hours      | \$600                | \$1,000               |
| > 10,000 sq ft       | CALL FOR QUOTE |                      |                       |

\* FROM WHEN ALL NEEDED MATERIALS ARE RECEIVED

### ACCA MANUAL S COMPLIANCE REPORT PRICING

| SIZE OF RESIDENCE    | # of HOURS | STANDARD (\$75/hour) | PRIORITY (\$125/hour) |
|----------------------|------------|----------------------|-----------------------|
| < 3,500 sq ft        | 1.0 hours  | \$75                 | \$125                 |
| 3,500 - 6,499 sq ft  | 2.0 hours  | \$150                | \$250                 |
| 6,500 - 12,000 sq ft | 3.0 hours  | \$225                | \$375                 |

\* FROM WHEN ALL NEEDED OEM MATERIALS ARE RECEIVED - please submit detailed capacity data for selected coil(s), condenser(s) & furnace(s)

### ACCA MANUAL D DUCT DESIGN PRICING

| SIZE OF RESIDENCE    | # of HOURS     | STANDARD (\$75/hour) | PRIORITY (\$125/hour) |
|----------------------|----------------|----------------------|-----------------------|
| < 1,499 sq ft        | 1.0 hours      | \$75                 | \$125                 |
| 1,500 - 3,499 sq ft  | 2.0 hours      | \$150                | \$250                 |
| 3,500 - 4,999 sq ft  | 3.0 hours      | \$225                | \$375                 |
| 5,000 - 6,499 sq ft  | 4.0 hours      | \$300                | \$500                 |
| 6,500 - 7,999 sq ft  | 5.0 hours      | \$375                | \$625                 |
| 8,000 - 10,000 sq ft | 8.0 hours      | \$600                | \$1,000               |
| > 10,000 sq ft       | CALL FOR QUOTE |                      |                       |

\* FROM WHEN ALL NEEDED MATERIALS ARE RECEIVED

### **ADDITIONAL Fees:**

#### **Manual S Surcharge: Mini-Splits**

2 Mini-Splits or less: No Extra Charge

3-6 Mini-Splits = + 1.0 Hour = \$75

7 Mini-Splits or more = + 2.0 Hours = \$150

Hartley Design Group allows **ONE 1.0 HOUR FREE** Manual J, S & D revision. Any revisions after that **WILL** result in an additional design services fee so please ensure **ALL** parties review Hartley Design Group's Project Summary prior to submitting your 1.0 HOUR FREE revision. All revisions:

- **MUST** be submitted in writing AND legible
- Are completed on Wednesday afternoons in the order received
- **MUST** be submitted PRIOR to on-site duct installation

## Hartley Design Group Legal Disclaimer: Client Terms & Conditions

This Legal Disclaimer and client agreement is acknowledged by the check box on pg 3 and paying the invoice, meaning that you have **read and agree** to the terms of the Hartley Design Group Client Terms and Conditions.

The Manual J, S & D calculations produced are based on information provided by the client in the form of this project design form, drawings & sketches. Hartley Design Group does not independently verify the data provided is correct or complete. If the building is built as per the plans submitted, then the load calculations presented in the report can be assumed to be accurate

**The installing HVAC contractor** is responsible for reviewing our Manual J, S & D HVAC design **before** equipment purchase and installation. Final HVAC sizing and selection should be done by a licensed HVAC contractor. As listed by ASHRAE, many factors beyond the scope of this report must be considered by the HVAC contractor prior to final system selection and design.

If the HVAC duct layout installed on-site **DOES NOT match the Manual D duct design** prepared by Hartley Design Group, then we cannot and will not guarantee the performance of any altered duct design.

If any errors or omissions appear in the ACCA Manual J, S & D residential design we provide, the client or HVAC contractor **must notify us in writing** of such omissions or errors **prior to proceeding** with any HVAC work which appears in question. In the event the client or HVAC contractor fails to give such notice he shall be held responsible for the results of such errors or omissions and the cost of rectifying the same. The client or HVAC contractor must clarify any questions about the Manual J, S & D HVAC design **PRIOR** to installation. Any client, HVAC contractor or owner interpretations shall be final.

**Hartley Design Group therefore assumes no liability for final equipment selection or final HVAC system design. After reviewing Hartley Design Group's report, and prior to any system purchase or installation, please inform Hartley Design Group in writing of any changes which may alter the assumptions and calculations contained in the Manual J, S & D calculations.**

### Dispute Resolution Procedure:

Hartley Design Group's legal liability is limited to the cost paid by the client for their Manual J, S & D HVAC Design. Hartley Design Group is not responsible for HVAC equipment, installation costs or cost of anything the installing contractor did not address prior to installation. See above where ANY concerns must be sent to Hartley Design Group in writing PRIOR to installation.

To prevent all disputes and litigation, it is agreed by the parties that any claim, question, difficulty or dispute arising from this agreement shall first be submitted to Hartley Design Group to address the issue. Upon review of the claim, we shall take one or more of the following preliminary actions within fourteen (14) days of receipt of a Claim: (1) request additional supporting data from the claimant, (2) submit a schedule to the parties indicating when we expect to take action, (3) reject the claim in whole or in part stating reasons for rejection, or (4) suggest a compromise.

If a Claim has not been resolved, the party making the Claim shall, within fourteen (14) days after Hartley Design Group's preliminary response, take one or more of the following actions: (1) submit additional supporting data requested by Hartley Design Group, (2) modify the initial Claim and resubmit to Hartley Design Group, or (3) notify Hartley Design Group that the initial Claim stands and submit the Claim to a Weld County CO Mediator for mediation.

The Weld County CO Mediator shall address any properly submitted claim, question, difficulty or dispute arising from this agreement or HVAC design, which has not been satisfactory addressed by Hartley Design Group.

The mediation session shall be private. Prior to commencement of mediation, the mediator shall execute a written confidentiality agreement in accordance with the provisions of Colorado law. All such mediation sessions shall be held in Weld County, CO

The parties agree that should either party commence any legal action against the other party, the jurisdiction and venue of the litigation shall be the United States District Court, District of Colorado.

#### LITIGATION COSTS

In the event of any litigation between the parties, Hartley Design Group shall be entitled to recover from the unsuccessful party all litigation costs and expenses, including reasonable attorneys' fees and disbursements.