# Appendix 1 Information for selected variables for predictors and responses.

| Variable name | Variable type | Label | Values/Format codes |
|---|---|---|---|
| **Building Characteristics** | | | |
| SQFT | Num | Square footage | 1,001 – 2,100,000 |
| NFLOOR | Num | Number of floors | 1 – 9<br>12=10 to 14 |
| BASEMNT | Num | Number of underground floors | 0 – 4<br>5=5 or more |
| ATTIC | Cate | Attic | 1=Yes<br>2=No |
| FLCEILHT | Num | Floor to ceiling height | 7 – 50 |
| YRCONC | Cate | Year of construction category | 2=Before 1946<br>3=1946 to 1959<br>4=1960 to 1969<br>5=1970 to 1979<br>6=1980 to 1989<br>7=1990 to 1999<br>8=2000 to 2012<br>9=2013 to 2018 |
| RFTILT | Cate | Roof tilt | 1=Flat<br>2=Shallow pitch<br>3=Steeper pitch |
| DAYLTP | Num | Percent daylight | 0 – 100 |
| WLCNS | Cate | Wall construction material | 1=Brick, stone, or stucco<br>2=Pre-cast concrete panels<br>3=Concrete block or poured concrete (above grade)<br>4=Aluminum, asbestos, plastic, or wood materials (siding, shingles, tiles,5=Sheet metal panels<br>6=Window or vision glass (glass that can be seen through)<br>7=Decorative or construction glass (glass that cannot be seen through)<br>8=Other |
| RFCNS | Cate | Roof construction material | 1=Built-up (tar, felts, or fiberglass and a ballast, such as stone)<br>2=Slate or tile shingles<br>3=Wood shingles, shakes, or other wooden materials<br>4=Asphalt, fiberglass, or other shingles<br>5=Metal surfacing<br>6=Plastic, rubber, or synthetic sheeting (single or multiple ply)<br>7=Concrete<br>8=Other |
| SKYLT | Cate | Skylights or atriums designed to provide light | 1=Yes<br>2=No |
| GLSSPC | Cate | Percent exterior glass | 1=1% or less<br>2=2 to 10%<br>3=11 to 25%<br>4=26 to 50%<br>5=51 to 75%<br>6=76 to 100% |
| WINTYP | Cate | Window glass type | 1=Single-layer glass<br>2=Multi-layer glass<br>3=Combination of both<br>4=No windows |
| TINT | Cate | Tinted window glass | 1=Yes<br>2=No |
| REFL | Cate | Reflective window glass | 1=Yes<br>2=No |
| **Occupancy** | | | |

| | | | | |
|---|---|---|---|---|
| PBA | Cate | Principal building activity | 1=Vacant<br>2=Office<br>4=Laboratory<br>6=Food sales<br>7=Public order and safety<br>8=Outpatient health care<br>12=Religious worship<br>13=Public assembly<br>14=Education<br>15=Food service<br>16=Inpatient health care<br>17=Nursing<br>18=Lodging<br>23=Strip shopping center<br>24=Enclosed mall<br>25=Retail other than mall<br>26=Service<br>91=Other | |
| OWNOCC | Cate | Derived variable: Owner occupied or leased to tenant(s) | 1=Yes<br>2=No<br>3=Not applicable | |
| OWNOPR | Cate | Owner operates | 1=Yes<br>2=No | |
| WKHRS | Num | Total hours open per week | 0 – 168 | |
| NWKER | Num | Number of employees | 0 – 7,500 | |

**Climate**

| | | | | |
|---|---|---|---|---|
| PUBCLIM | Cate | Third-party data: ASHRAE climate zone | 1=Cold or very cold<br>2=Cool<br>3=Mixed mild<br>4=Warm<br>5=Hot or very hot<br>7=Withheld for confidentiality | |
| HDD65 | Num | Third-party data: Heating degree days (base 65) | 402 – 10,790 | |
| CDD65 | Num | Third-party data: Cooling degree days (base 65) | 10 – 5,643 | |

**Renovations** <span style="color:red">(Note that, here "No" is represented by 0, and these are numeric variables.)</span>

| | | | | |
|---|---|---|---|---|
| RENOV | Num | Renovations | 1=Yes<br>0=No | |
| RENRFF | Num | Roof replacement | 1=Yes<br>0=No | |
| RENWIN | Num | Window replacement | 1=Yes<br>0=No | |
| RENHVC | Num | HVAC equipment upgrade | 1=Yes<br>0=No | |
| RENLGT | Num | Lighting upgrade | 1=Yes<br>0=No | |
| RENPLB | Num | Plumbing system upgrade | 1=Yes<br>0=No | |
| RENELC | Num | Electrical upgrade | 1=Yes<br>0=No | |
| type_RENOV | Cate | Category for renovations | 1=Non-updated aged building<br>2=New building<br>3=Updated aged building | |
| type_RENRFF | Cate | Category for renovations in roof | 1=Non-updated aged building<br>2=New building<br>3=Updated aged building | |
| type_RENWIN | Cate | Category for renovations in window | 1=Non-updated aged building<br>2=New building<br>4=Updated aged building | |
| type_RENLGT | Cate | Category for renovations in lighting | 1=Non-updated aged building<br>2=New building<br>5=Updated aged building | |
| type_RENHVC | Cate | Category for renovations in HVAC | 1=Non-updated aged building<br>2=New building<br>6=Updated aged building | |
| type_RENPLB | Cate | Category for renovations in plumbing | 1=Non-updated aged building<br>2=New building<br>7=Updated aged building | |
| type_RENELC | Cate | Category for renovations in electric | 1=Non-updated aged building<br>2=New building<br>8=Updated aged building | |

**Response Variables (need to be devided by SQFT)**

| | | | | |
|---|---|---|---|---|
| MFBTU | Num | Derived variable: Annual major fuels consumption (thous Btu) | 124 – 802,588,047 | |

| | | | |
|---|---|---|---|
| MFHTBTU | Num | Modeled variable: Major fuels heating use (thous Btu) | 0 – 417,233,255 |
| MFCLBTU | Num | Modeled variable: Major fuels cooling use (thous Btu) | 0 – 121,963,882 |
| MFVNBTU | Num | Modeled variable: Major fuels ventilation use (thous Btu) | 0 – 180,731,980 |
| MFLTBTU | Num | Modeled variable: Major fuels lighting use (thous Btu) | 0 – 49,404,857 |
| TOTEUI | Num | Annual major fuels consumption per square feet | 0.013 - 1710.839 |
| HTEUI | Num | Major fuels heating use per square feet | 0 - 477.64 |
| CLEUI | Num | Major fuels cooling use per square feet | 0 - 136.58 |
| LTEUI | Num | Major fuels lighting use per square feet | 0 - 88.68 |
| VNEUI | Num | Major fuels ventilation use per square feet | 0 - 145.82 |

# Appendix 2 Results for full multiple linear regression models

Note that the binary predictors with "2" as suffix mean "No", therefore, a positive parameter for that variable means decrease in consumption if the building is equiped with that.
While the continuous upgrade predictors (like RENRFF) use "0" to indicate "No". A negative parameter for that variable means decrease in consumption if that aspect was upgraded.

| | TotalEUI (TOTEUI) | | CoolingEUI (CLEUI) | | HeatingEUI (HTEUI) | | Ventilation EUI (VNEUI) | | Lighting EUI (LTEUI) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | coef | p-value | coef | p-value | coef | p-value | coef | p-value | coef | p-value |
| R^2 | 0.4834 | | 0.4109 | | 0.1899 | | 0.4798 | | 0.2497 | |
| (Intercept) | (33.9315) | 0.1056 | (14.0860) | **0.0001** | (19.5783) | 0.0744 | (3.4513) | 0.0780 | (0.2298) | 0.9485 |
| PBA2 | 16.1568 | 0.0577 | 4.0402 | **0.0283** | 11.4186 | **0.0035** | 5.5984 | **0.0000** | (0.7951) | 0.7185 |
| PBA4 | 70.4465 | 0.2644 | 17.8128 | **0.0075** | 28.1057 | 0.1193 | (1.7324) | 0.5704 | (1.6485) | 0.6764 |
| PBA6 | 159.9339 | **0.0000** | 4.7148 | **0.0165** | 20.5584 | **0.0023** | 5.5337 | **0.0000** | 3.2426 | 0.1583 |
| PBA7 | (0.0833) | 0.9952 | 5.5279 | **0.0053** | 15.9253 | **0.0424** | (5.0800) | **0.0001** | (3.4409) | 0.1770 |
| PBA8 | 24.0357 | **0.0192** | 2.5049 | 0.2120 | 11.0858 | **0.0121** | 11.0233 | **0.0000** | 1.7364 | 0.4413 |
| PBA12 | 11.4673 | 0.1507 | 3.4572 | 0.0935 | 11.3553 | **0.0043** | 1.2895 | 0.0728 | (3.0028) | 0.2126 |
| PBA13 | 26.8664 | **0.0024** | 11.9683 | **0.0000** | 20.4714 | **0.0000** | (0.5492) | 0.4242 | (3.5878) | 0.1032 |
| PBA14 | 18.1935 | **0.0427** | 6.3257 | **0.0011** | 14.0095 | **0.0027** | 0.8845 | 0.1934 | (3.2320) | 0.1619 |
| PBA15 | 217.6336 | **0.0000** | 15.5067 | **0.0000** | 19.4199 | **0.0001** | 11.5851 | **0.0000** | 0.9338 | 0.6925 |
| PBA16 | 92.6095 | **0.0000** | 14.7684 | **0.0001** | 46.1136 | **0.0003** | 11.4748 | **0.0000** | (3.8684) | 0.1097 |
| PBA17 | 24.2926 | 0.1461 | 6.2388 | **0.0094** | 10.3404 | 0.1641 | 4.9479 | 0.0875 | (1.3147) | 0.6790 |
| PBA18 | (10.9351) | 0.5000 | 2.4236 | 0.2713 | (0.7265) | 0.9311 | (1.3745) | 0.4496 | (8.5711) | **0.0006** |
| PBA23 | 49.8397 | **0.0000** | 2.1469 | 0.2911 | 20.1695 | **0.0000** | 3.4286 | **0.0001** | 1.9046 | 0.4333 |
| PBA24 | 48.3890 | **0.0154** | 12.4012 | **0.0009** | 4.7716 | 0.6014 | 1.2676 | 0.5726 | 4.4911 | 0.2540 |
| PBA25 | (0.1406) | 0.9880 | 2.5896 | 0.1307 | 2.6685 | 0.5348 | 1.4396 | 0.0758 | 1.1454 | 0.6316 |
| PBA26 | 14.5840 | 0.0524 | 3.9148 | **0.0311** | 12.3145 | **0.0007** | (0.6533) | 0.3446 | 0.0370 | 0.9874 |
| PBA91 | 25.8966 | 0.1728 | 5.9830 | **0.0280** | 6.4952 | 0.4786 | (3.2349) | **0.0091** | (0.8083) | 0.7448 |
| SQFT | (0.0001) | **0.0000** | (0.0000) | **0.0000** | (0.0000) | 0.2893 | (0.0000) | **0.0265** | (0.0000) | 0.1024 |
| NFLOOR2 | (8.0344) | **0.0299** | (0.8779) | 0.0938 | (1.2079) | 0.4939 | 0.2315 | 0.5812 | 0.1080 | 0.8018 |
| NFLOOR3 | (12.8995) | **0.0190** | (1.4072) | 0.0537 | (1.8399) | 0.5619 | (0.8602) | 0.1327 | 0.0091 | 0.9869 |
| NFLOOR4 | (12.9959) | 0.0629 | (3.6820) | **0.0000** | 2.9598 | 0.4697 | (0.7880) | 0.2777 | (0.8705) | 0.2607 |
| NFLOOR5 | (0.0382) | 0.9957 | (2.4372) | 0.1199 | 4.3733 | 0.3235 | 0.3633 | 0.7214 | (0.7613) | 0.1716 |
| NFLOOR6 | (16.0872) | 0.0660 | (2.4670) | **0.0276** | (3.7231) | 0.4501 | 1.0539 | 0.5021 | 3.7544 | 0.1394 |
| NFLOOR7 | (3.7090) | 0.6570 | (0.1086) | 0.9345 | (2.0618) | 0.6316 | 0.4017 | 0.8077 | 0.1227 | 0.9213 |
| NFLOOR8 | 0.5114 | 0.9678 | (2.1526) | 0.2622 | 5.3353 | 0.4176 | 0.6062 | 0.7036 | 0.4815 | 0.7017 |
| NFLOOR9 | (1.0372) | 0.9226 | (5.1599) | **0.0005** | 3.8636 | 0.4076 | (1.8500) | 0.2393 | 0.7262 | 0.6834 |
| NFLOOR12 | (1.6296) | 0.8941 | (1.1564) | 0.4196 | (2.5514) | 0.6142 | 2.1097 | 0.0614 | (0.3533) | 0.7236 |
| BASEMNT | (0.6039) | 0.8626 | (0.0536) | 0.9221 | (0.7234) | 0.7759 | 0.1226 | 0.8026 | (0.5978) | 0.1041 |
| ATTIC2 | 0.0932 | 0.9820 | 0.3332 | 0.4616 | (0.4706) | 0.7042 | 0.5112 | 0.1294 | (0.4924) | 0.1197 |
| FLCEILHT | 0.3444 | 0.1515 | 0.0291 | 0.3383 | 0.3796 | **0.0046** | (0.0124) | 0.4940 | (0.0383) | 0.4656 |
| RFTILT2 | (9.1020) | 0.0635 | (0.9160) | 0.1257 | (1.0688) | 0.4941 | (0.9594) | **0.0119** | (0.1100) | 0.8463 |
| RFTILT3 | (10.9885) | 0.0709 | (0.8536) | 0.1992 | (0.3637) | 0.8551 | (0.8473) | **0.0423** | (0.2548) | 0.6232 |
| DAYLTP | 0.0124 | 0.8514 | 0.0011 | 0.9058 | (0.0202) | 0.4917 | (0.0016) | 0.7476 | (0.0030) | 0.6549 |
| WLCNS2 | 0.8620 | 0.9120 | (1.3857) | 0.2468 | (0.0283) | 0.9947 | 0.3152 | 0.6115 | 0.6916 | 0.4119 |
| WLCNS3 | (5.8688) | 0.1320 | 0.4623 | 0.4391 | 0.0107 | 0.9940 | (0.2523) | 0.5333 | 0.2083 | 0.5552 |
| WLCNS4 | (1.4604) | 0.8021 | 0.4528 | 0.3787 | (2.2312) | 0.3375 | (0.7797) | 0.1202 | 0.7053 | 0.3746 |
| WLCNS5 | (9.6931) | **0.0490** | (0.8683) | 0.3207 | (3.7525) | 0.1420 | (0.6643) | 0.1954 | (0.2400) | 0.7896 |
| WLCNS6 | 20.8695 | 0.4315 | (2.8204) | 0.3390 | 0.2111 | 0.9641 | (0.4551) | 0.6855 | 0.6197 | 0.7009 |
| WLCNS7 | 42.6991 | 0.5763 | 0.0946 | 0.9766 | (10.7532) | **0.0002** | 17.2958 | 0.3868 | (1.5867) | 0.1504 |
| WLCNS8 | 2.1764 | 0.8332 | (0.9146) | 0.4546 | (0.7243) | 0.7769 | (0.1593) | 0.8974 | 0.3097 | 0.7490 |
| RFCNS2 | 7.5776 | 0.2571 | 0.2374 | 0.8201 | 1.6048 | 0.4920 | (0.0174) | 0.9812 | (0.3547) | 0.5445 |
| RFCNS3 | 0.4425 | 0.9683 | (0.6080) | 0.6650 | 1.5742 | 0.7517 | (0.0156) | 0.9869 | (0.2005) | 0.8154 |
| RFCNS4 | 8.0319 | 0.2232 | 0.1386 | 0.8722 | 2.1580 | 0.3848 | 0.0744 | 0.9077 | (0.1550) | 0.7930 |
| RFCNS5 | 1.4926 | 0.7583 | 0.1066 | 0.9197 | (0.8311) | 0.7149 | 0.2847 | 0.6571 | (0.0199) | 0.9701 |
| RFCNS6 | 11.0458 | **0.0206** | (0.6047) | 0.3523 | 4.0009 | **0.0475** | 0.2950 | 0.5497 | 0.7758 | 0.3049 |
| RFCNS7 | 0.5440 | 0.9491 | 4.3293 | 0.1378 | (10.4906) | 0.0541 | 1.0115 | 0.4779 | 0.0419 | 0.9677 |
| RFCNS8 | (1.6168) | 0.8916 | (1.2634) | 0.3528 | (3.0541) | 0.2651 | (0.8005) | 0.3825 | 2.3832 | **0.0397** |
| SKYLT2 | 6.9245 | 0.1135 | 0.9075 | 0.2386 | 3.9358 | **0.0192** | 0.2622 | 0.5871 | 0.3515 | 0.4798 |
| GLSSPC2 | 4.0165 | 0.3033 | 1.6378 | **0.0053** | 1.6883 | 0.4604 | 0.2240 | 0.6502 | 0.6791 | 0.1082 |
| GLSSPC3 | 8.9734 | 0.0596 | 2.2162 | **0.0005** | 3.2531 | 0.1153 | (0.2918) | 0.5073 | 0.8668 | **0.0452** |
| GLSSPC4 | 19.5271 | **0.0031** | 5.2466 | **0.0000** | 5.1789 | **0.0397** | 0.8011 | 0.1263 | 1.5978 | **0.0084** |
| GLSSPC5 | 25.1348 | **0.0106** | 9.5941 | **0.0003** | 7.3453 | 0.2148 | 0.3381 | 0.7271 | 3.0399 | 0.1277 |
| GLSSPC6 | (20.2020) | 0.1886 | 8.0949 | **0.0001** | 0.3984 | 0.9527 | (2.0074) | 0.1452 | (2.9807) | 0.0529 |
| WINTYP2 | (3.7334) | 0.4170 | 0.8133 | 0.1257 | (5.1673) | **0.0125** | 0.8703 | **0.0254** | (0.0587) | 0.8817 |
| WINTYP3 | 4.7970 | 0.2997 | 2.5208 | **0.0058** | (3.2062) | 0.0954 | 1.1675 | **0.0021** | 1.1588 | 0.0963 |
| WINTYP4 | (11.7962) | 0.0665 | (0.8987) | 0.3479 | (13.3203) | **0.0001** | (0.1351) | 0.7895 | 1.3644 | 0.4836 |
| REFL2 | 5.0493 | 0.2834 | 1.5974 | **0.0193** | 3.8536 | **0.0129** | 0.3683 | 0.5050 | 0.5659 | 0.3366 |
| TINT2 | (3.5498) | 0.3835 | 0.2432 | 0.6391 | (0.8369) | 0.5213 | 0.0548 | 0.8732 | 0.3367 | 0.2991 |
| OWNOCC2 | (0.4763) | 0.9037 | (0.6981) | 0.2189 | (1.5277) | 0.3535 | (0.0311) | 0.9328 | 1.1682 | 0.1559 |
| OWNOCC3 | 8.4721 | 0.3516 | 4.2950 | **0.0334** | 3.7310 | 0.4388 | 1.5124 | **0.0385** | (2.3967) | 0.3638 |
| OWNOPR2 | 7.3167 | 0.2054 | 0.9043 | 0.1212 | 0.8119 | 0.7450 | 0.1584 | 0.7751 | 0.4599 | 0.6058 |
| WKHRS | 0.5162 | **0.0000** | 0.0328 | **0.0001** | 0.0895 | **0.0078** | 0.0859 | **0.0000** | 0.0552 | **0.0000** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NWKER | 0.0499 | **0.0001** | 0.0011 | 0.4217 | 0.0030 | 0.4754 | 0.0065 | **0.0000** | 0.0034 | **0.0023** |
| PUBCLIM2 | 8.2469 | 0.1502 | 0.5581 | 0.2426 | 2.6818 | 0.5492 | 0.4677 | 0.3805 | 1.4694 | 0.1178 |
| PUBCLIM3 | 12.4024 | 0.0931 | 2.3770 | **0.0040** | 4.5721 | 0.3632 | 0.4615 | 0.4784 | 1.7481 | 0.0507 |
| PUBCLIM4 | 8.0702 | 0.4560 | 4.2997 | **0.0003** | (0.9940) | 0.8764 | 0.5171 | 0.5643 | 2.0726 | 0.0988 |
| PUBCLIM5 | (9.1500) | 0.4971 | 6.8587 | **0.0009** | (11.3895) | 0.1212 | (0.8531) | 0.4766 | 2.2937 | 0.1224 |
| PUBCLIM7 | 2.9447 | 0.7736 | 0.9615 | 0.3662 | (3.0335) | 0.6425 | 0.0424 | 0.9711 | 2.6879 | 0.0719 |
| HDD65 | 0.0043 | **0.0422** | 0.0002 | 0.3250 | 0.0034 | **0.0008** | 0.0000 | 0.8168 | 0.0002 | 0.2769 |
| CDD65 | 0.0076 | **0.0099** | 0.0036 | **0.0000** | 0.0006 | 0.5179 | 0.0005 | 0.0566 | 0.0004 | 0.1984 |
| type_RENWIN2 | 5.7029 | 0.1482 | 0.9716 | 0.0855 | 0.7136 | 0.6912 | 0.5630 | 0.1239 | 1.6508 | **0.0480** |
| type_RENWIN3 | (2.8823) | 0.6390 | (0.0660) | 0.9317 | 3.3575 | 0.3400 | (0.3289) | 0.4987 | 0.7731 | 0.1237 |
| RENRFF | 1.7664 | 0.7946 | 0.6388 | 0.3407 | (3.2811) | 0.1502 | 0.4473 | 0.4549 | (0.0230) | 0.9640 |
| RENLGT | 2.9176 | 0.5049 | (0.5663) | 0.3165 | 3.5972 | 0.0867 | (0.5122) | 0.2983 | (0.8181) | 0.0885 |
| RENHVC | 0.8544 | 0.8955 | (0.5927) | 0.3547 | 1.6313 | 0.6351 | 0.7289 | 0.1476 | 0.9549 | 0.0648 |
| RENPLB | (13.7239) | **0.0286** | (0.0821) | 0.9039 | (6.0849) | 0.0533 | (0.4954) | 0.3755 | (0.6321) | 0.2561 |
| RENELC | 0.5120 | 0.9390 | 0.2786 | 0.7156 | 0.1160 | 0.9716 | (0.2652) | 0.6251 | (0.0277) | 0.9658 |

# Appendix 3 Results for reduced multiple linear regression models

Note that the binary predictors with "2" as suffix mean "No", therefore, a positive parameter for that variable means decrease in consumption if the building is equiped with that.
While the continuous upgrade predictors (like RENRFF) use "0" to indicate "No". A negative parameter for that variable means decrease in consumption if that aspect was upgraded.

| | TotalEUI (TOTEUI) | | CoolingEUI (CLEUI) | | HeatingEUI (HTEUI) | | Ventilation EUI (VNEUI) | | Lighting EUI (LTEUI) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | coef | p-value | coef | p-value | coef | p-value | coef | p-value | coef | p-value |
| R^2 | 0.4758 | | 0.4032 | | 0.1744 | | 0.4691 | | 0.2361 | |
| (Intercept) | 0.2204 | 0.9828 | (10.8464) | **0.0000** | (22.6610) | **0.0000** | (1.1745) | 0.0909 | 0.8623 | 0.5240 |
| PBA2 | 10.2949 | 0.0803 | 3.4190 | **0.0380** | 9.1759 | **0.0204** | 5.7377 | **0.0000** | 1.3447 | 0.2867 |
| PBA4 | 58.5027 | 0.3665 | 17.0227 | **0.0122** | 29.4642 | 0.0961 | (2.1997) | 0.5488 | 0.1947 | 0.9529 |
| PBA6 | 154.1631 | **0.0000** | 3.9070 | **0.0297** | 19.6960 | **0.0040** | 5.4548 | **0.0000** | 5.2143 | **0.0007** |
| PBA7 | (8.7900) | 0.4707 | 4.4249 | **0.0173** | 14.8702 | 0.0530 | (5.1307) | **0.0000** | (1.5688) | 0.3930 |
| PBA8 | 17.4051 | **0.0191** | 1.9721 | 0.2576 | 9.4044 | **0.0388** | 11.2475 | **0.0000** | 4.0815 | **0.0022** |
| PBA12 | 8.4870 | 0.1118 | 2.9806 | 0.1131 | 9.3307 | **0.0361** | 1.6353 | **0.0107** | (1.4365) | 0.2479 |
| PBA13 | 20.7233 | **0.0013** | 11.3451 | **0.0000** | 18.6961 | **0.0002** | (0.4624) | 0.4630 | (1.8378) | 0.1184 |
| PBA14 | 9.6780 | 0.1210 | 5.6941 | **0.0015** | 11.8380 | **0.0064** | 0.9191 | 0.1099 | (1.4314) | 0.2411 |
| PBA15 | 213.7424 | **0.0000** | 14.9978 | **0.0000** | 17.8818 | **0.0011** | 11.9506 | **0.0000** | 2.9752 | **0.0325** |
| PBA16 | 79.5956 | **0.0000** | 13.7535 | **0.0001** | 42.7114 | **0.0000** | 11.0881 | **0.0000** | (1.8347) | 0.2681 |
| PBA17 | 17.3216 | 0.2624 | 5.0900 | **0.0227** | 8.3440 | 0.2590 | 4.6099 | 0.1158 | 1.1671 | 0.6336 |
| PBA18 | (17.6551) | 0.2120 | 1.6571 | 0.4171 | (3.3594) | 0.6614 | (1.3786) | 0.3791 | (6.2523) | **0.0005** |
| PBA23 | 53.3621 | **0.0000** | 1.8437 | 0.3203 | 18.4000 | **0.0001** | 3.5905 | **0.0000** | 4.5952 | **0.0018** |
| PBA24 | 35.8032 | **0.0488** | 11.2216 | **0.0021** | (3.3127) | 0.5836 | 0.8247 | 0.6511 | 7.3283 | **0.0409** |
| PBA25 | (3.6566) | 0.5913 | 2.1238 | 0.1692 | 0.8620 | 0.8495 | 1.5699 | **0.0314** | 3.4017 | **0.0110** |
| PBA26 | 6.6080 | 0.1896 | 3.2626 | **0.0481** | 10.1366 | **0.0083** | (0.6789) | 0.2655 | 1.8648 | 0.1607 |
| PBA91 | 18.9137 | 0.3123 | 5.2800 | 0.0530 | 5.2220 | 0.5528 | (3.1170) | **0.0056** | 0.8681 | 0.6243 |
| SQFT | (0.0001) | **0.0000** | (0.0000) | **0.0000** | (0.0000) | 0.5827 | (0.0000) | 0.0518 | (0.0000) | 0.0609 |
| NFLOOR2 | (7.5732) | 0.0723 | (0.9890) | 0.0519 | | | 0.1722 | 0.6634 | (0.1227) | 0.7543 |
| NFLOOR3 | (11.1521) | **0.0194** | (1.5750) | **0.0268** | | | (0.8361) | **0.0458** | (0.4764) | 0.3161 |
| NFLOOR4 | (12.0654) | 0.0673 | (3.9998) | **0.0000** | | | (0.6591) | 0.2848 | (1.3832) | 0.0557 |
| NFLOOR5 | 1.7089 | 0.7957 | (2.4037) | 0.0931 | | | 0.4141 | 0.6781 | (1.3355) | **0.0128** |
| NFLOOR6 | (14.3536) | **0.0354** | (2.5803) | **0.0089** | | | 1.4258 | 0.2960 | 3.1852 | 0.2133 |
| NFLOOR7 | (6.2462) | 0.3253 | (0.2301) | 0.8480 | | | 0.0477 | 0.9776 | (0.5549) | 0.6652 |
| NFLOOR8 | 0.0443 | 0.9967 | (2.1664) | 0.2108 | | | 1.2025 | 0.1986 | (0.3095) | 0.8134 |
| NFLOOR9 | 0.1148 | 0.9901 | (4.7776) | **0.0026** | | | (1.6975) | 0.2005 | 0.0949 | 0.9578 |
| NFLOOR12 | (2.8522) | 0.7964 | (1.1022) | 0.3836 | | | 2.1860 | **0.0189** | (1.0320) | 0.2681 |
| BASEMNT | | | 0.1283 | 0.8085 | | | | | | |
| ATTIC2 | | | | | | | | | | |
| FLCEILHT | | | | | 0.3498 | **0.0083** | | | | |
| RFTILT2 | (9.8645) | **0.0172** | | | | | (1.2710) | **0.0003** | | |
| RFTILT3 | (11.7662) | **0.0082** | | | | | (1.3099) | **0.0003** | | |
| DAYLTP | | | | | | | | | | |
| WLCNS2 | | | | | (0.8205) | 0.8495 | | | | |
| WLCNS3 | | | | | (0.0389) | 0.9801 | | | | |
| WLCNS4 | | | | | (2.5992) | 0.2699 | | | | |
| WLCNS5 | | | | | (4.3117) | 0.0735 | | | | |
| WLCNS6 | | | | | 0.6164 | 0.8946 | | | | |
| WLCNS7 | | | | | (11.2150) | **0.0360** | | | | |
| WLCNS8 | | | | | (1.5998) | 0.5279 | | | | |
| RFCNS2 | 7.1246 | 0.2603 | | | 1.7271 | 0.4220 | | | (0.3035) | 0.5561 |
| RFCNS3 | (1.0135) | 0.9268 | | | 0.2477 | 0.9591 | | | 0.0187 | 0.9837 |
| RFCNS4 | 7.4008 | 0.2788 | | | 2.0868 | 0.3797 | | | 0.0679 | 0.8974 |
| RFCNS5 | (2.5780) | 0.5651 | | | (1.3329) | 0.5171 | | | (0.1093) | 0.8314 |
| RFCNS6 | 9.2768 | **0.0393** | | | 4.0589 | 0.0501 | | | 0.7484 | 0.3284 |
| RFCNS7 | (1.0264) | 0.9022 | | | (12.1643) | **0.0239** | | | 0.1324 | 0.8932 |
| RFCNS8 | (0.7360) | 0.9544 | | | (2.8079) | 0.2727 | | | 2.4487 | **0.0327** |
| SKYLT2 | | | | | 3.7327 | **0.0191** | | | | |
| GLSSPC2 | 6.4406 | 0.0747 | 1.7218 | **0.0019** | 1.1765 | 0.6053 | | | 0.7777 | 0.0785 |
| GLSSPC3 | 11.4513 | **0.0149** | 2.3301 | **0.0002** | 2.5666 | 0.1968 | | | 0.8690 | **0.0327** |
| GLSSPC4 | 22.9104 | **0.0002** | 5.5107 | **0.0000** | 4.5775 | **0.0450** | | | 1.6042 | **0.0032** |
| GLSSPC5 | 30.7629 | **0.0035** | 9.5117 | **0.0005** | 6.9431 | 0.2262 | | | 3.2036 | 0.1038 |
| GLSSPC6 | (9.5684) | 0.4760 | 7.6370 | **0.0013** | 0.6690 | 0.9234 | | | (2.1606) | 0.0849 |
| WINTYP2 | | | 0.5761 | 0.2888 | (4.4564) | **0.0322** | 0.7239 | 0.0513 | (0.1605) | 0.7129 |
| WINTYP3 | | | 2.3454 | **0.0089** | (2.7200) | 0.1640 | 1.0656 | **0.0044** | 0.9337 | 0.1424 |
| WINTYP4 | | | (1.0451) | 0.2504 | (11.9359) | **0.0004** | (0.2140) | 0.5922 | 1.3780 | 0.4489 |
| REFL2 | | | 1.5804 | **0.0216** | 4.0441 | **0.0081** | | | | |
| TINT2 | | | | | | | | | | |
| OWNOCC2 | | | (0.2584) | 0.6292 | | | 0.0237 | 0.9524 | | |
| OWNOCC3 | | | 3.8766 | 0.0730 | | | 1.5266 | **0.0206** | | |
| OWNOPR2 | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| WKHRS | 0.5032 | **0.0000** | 0.0354 | **0.0000** | 0.0817 | **0.0124** | 0.0856 | **0.0000** | 0.0556 | **0.0000** |
| NWKER | 0.0495 | **0.0000** | | | | | 0.0067 | **0.0000** | 0.0036 | **0.0008** |
| PUBCLIM2 | | | 0.3138 | 0.4581 | | | | | 1.0964 | 0.0946 |
| PUBCLIM3 | | | 1.7824 | **0.0059** | | | | | 1.2107 | **0.0150** |
| PUBCLIM4 | | | 3.2202 | **0.0002** | | | | | 1.0902 | **0.0358** |
| PUBCLIM5 | | | 5.7432 | **0.0046** | | | | | 1.6076 | **0.0048** |
| PUBCLIM7 | | | 0.3747 | 0.7353 | | | | | 1.8653 | **0.0365** |
| HDD65 | 0.0034 | **0.0064** | | | 0.0044 | **0.0000** | | | | |
| CDD65 | 0.0033 | 0.1183 | 0.0036 | **0.0000** | | | | | | |
| type_RENWIN | 4.5943 | 0.2187 | 0.6920 | 0.1957 | 0.6202 | 0.7291 | 0.5625 | 0.1285 | 1.4682 | 0.0585 |
| type_RENWIN | (3.6801) | 0.5028 | 0.2667 | 0.7286 | 3.0121 | 0.4057 | (0.5521) | 0.2397 | 0.8358 | 0.1299 |
| RENRFF | | | | | (2.9710) | 0.1503 | | | | |
| RENLGT | 3.7392 | 0.3397 | (0.5489) | 0.3280 | 4.5281 | **0.0387** | | | (0.6461) | 0.0848 |
| RENHVC | | | (0.4654) | 0.4251 | | | 0.6035 | 0.1632 | | |
| RENPLB | (12.6681) | 0.0523 | | | (5.6694) | **0.0445** | (0.7485) | 0.1281 | | |
| RENELC | | | | | | | | | | |