

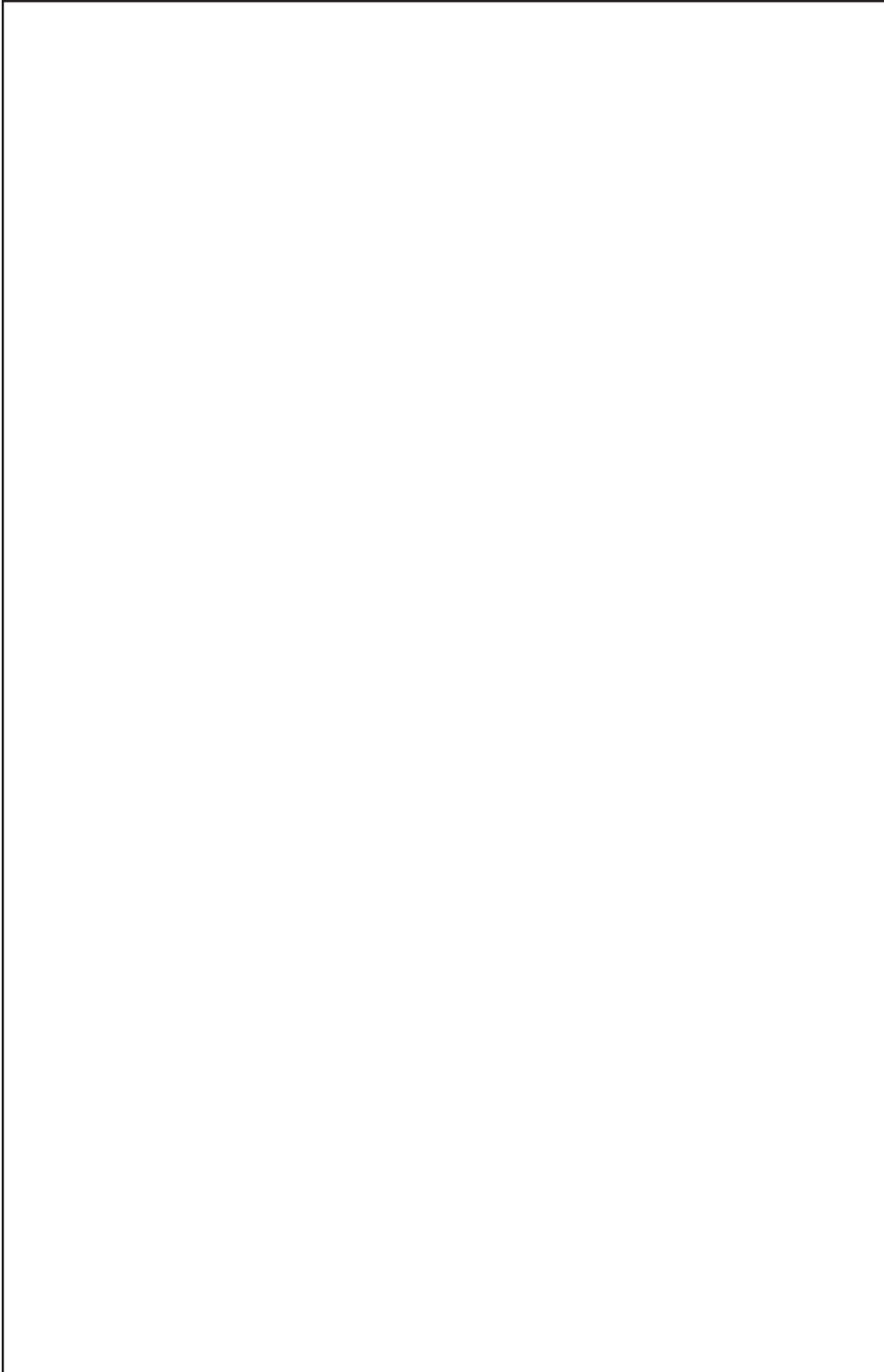
Respondent Function

- ◆ **Operations, maintenance, or engineering**
- ◆ **Property management**
- ◆ **Store management**
- ◆ **Mall management**
- ◆ **Administration or company management**
- ◆ **Energy or environmental management**
- ◆ **Building owner**
- ◆ **Business owner**
- ◆ **Accounting, finances, or payroll**
- ◆ **Executive official**
- ◆ **School official**
- ◆ **Religious official**
- ◆ **Support staff**
- ◆ **Other**



Square Footage Category

- ◆ **1,000 square feet or less**
(1,000 square feet is approximately 2 times the size of a two car garage)
- ◆ **1,001 to 5,000 square feet**
(Example: fast food restaurant)
- ◆ **5,001 to 10,000 square feet**
(Example: sit-down style chain restaurant)
- ◆ **10,001 to 25,000 square feet**
(Example: high school gym)
- ◆ **25,001 to 50,000 square feet**
(Example: supermarket)
- ◆ **50,001 to 100,000 square feet**
(Example: large discount or home improvement store)
- ◆ **100,001 to 200,000 square feet**
(Example: 3-level department store)
- ◆ **200,001 to 500,000 square feet**
(Example: professional basketball arena)
- ◆ **500,001 to 1 million square feet**
(Example: convention center)
- ◆ **Over 1 million square feet**
(Example: skyscraper)



Wall Construction Material

- ◆ **Brick, stone, or stucco**
- ◆ **Pre-cast concrete panels**
- ◆ **Concrete block or poured concrete**
(above grade)
- ◆ **Aluminum, asbestos, plastic, or wood materials**
(siding, shingles, tiles, or shakes)
- ◆ **Sheet metal panels**
- ◆ **Window or vision glass**
(glass that can be seen through)
- ◆ **Decorative or construction glass**
(glass that cannot be seen through)
- ◆ **Other**



Roof Construction Material

- ◆ **Built-up**
(tar, felts, or fiberglass and a ballast, such as stone)
- ◆ **Slate or tile shingles**
- ◆ **Wood shingles, shakes, or other wooden materials**
- ◆ **Asphalt, fiberglass, or other shingles**
- ◆ **Metal surfacing**
- ◆ **Plastic, rubber, or synthetic sheeting**
(single or multi ply)
- ◆ **Concrete**
- ◆ **Other**



A4

Special Roof Qualities

SELECT ALL THAT APPLY

- ◆ **White or highly reflective coating or paint**
- ◆ **White or highly reflective tiles or shingles**
- ◆ **Aluminum coating**
- ◆ **Ballasted roof system**
- ◆ **Vegetated roof**
- ◆ **Other**
- ◆ **None**

A4



Roof Tilt

◆ Flat



◆ Shallow pitch



◆ Steeper pitch



A6

Building Shape

Square



Wide rectangle



Narrow rectangle



Rectangle or square
with an interior courtyard



"H" shaped



"U" shaped



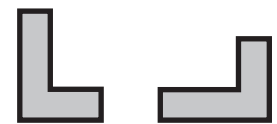
"E" shaped



"T" shaped



"L" shaped



"+" or cross shaped

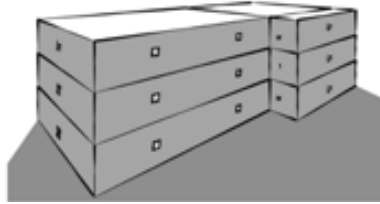


Other shape

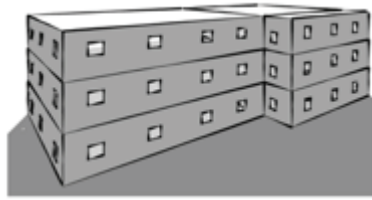
A7

Percent Exterior Glass

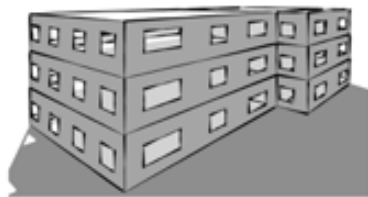
1% or less



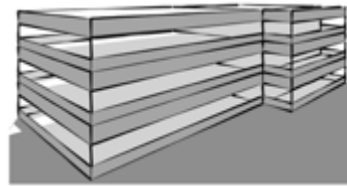
2 to 10%



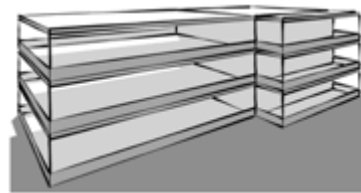
11 to 25%



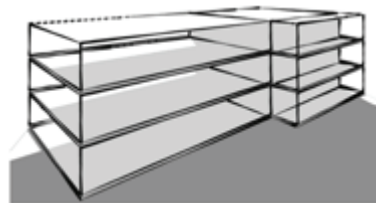
26 to 50%



51 to 75%



76 to 100%





Year of Construction Category

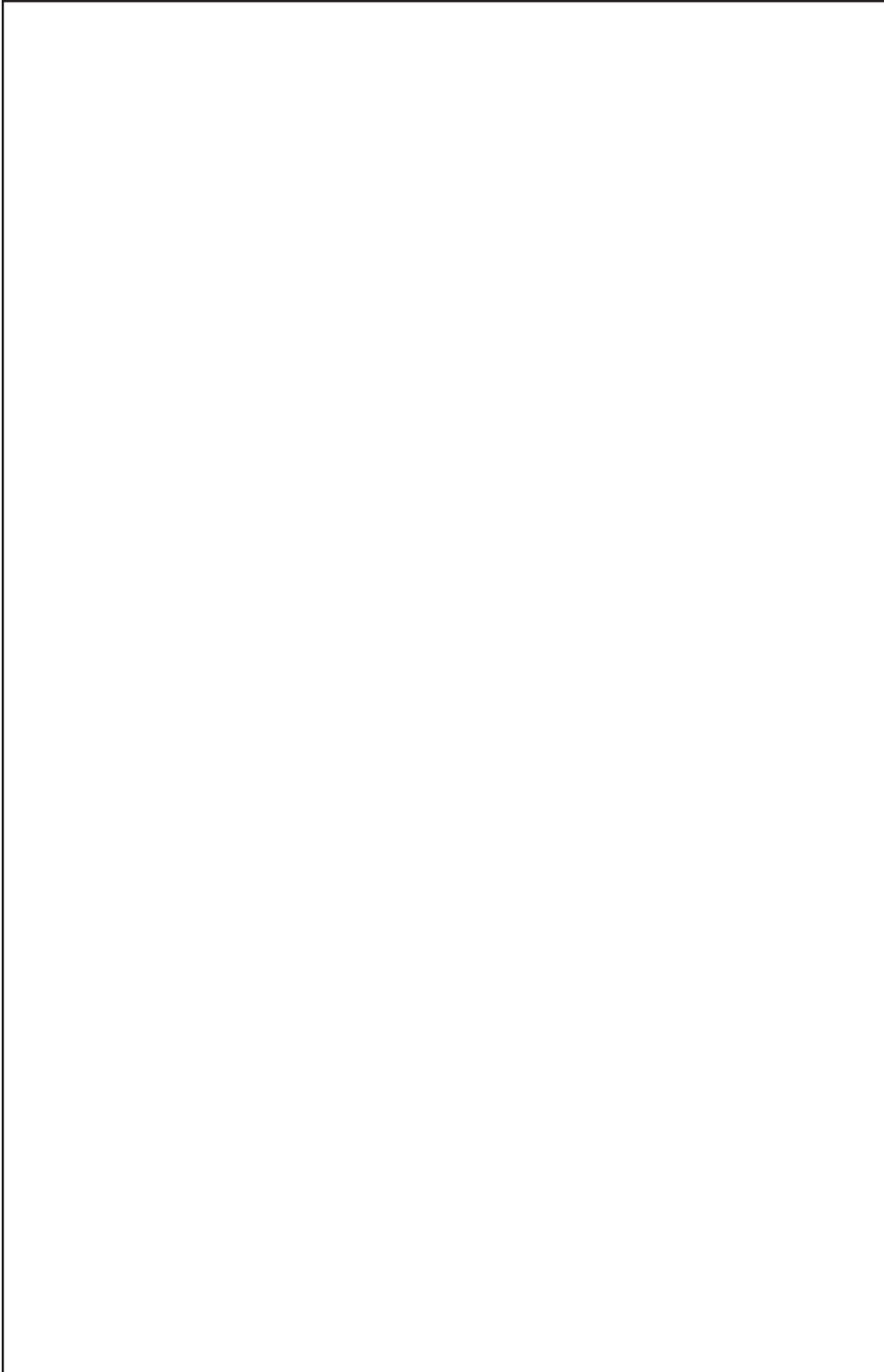
- ◆ **Before 1920**
- ◆ **1920 to 1945**
- ◆ **1946 to 1959**
- ◆ **1960 to 1969**
- ◆ **1970 to 1979**
- ◆ **1980 to 1989**
- ◆ **1990 to 1999**
- ◆ **2000 to 2009**
- ◆ **2010 to 2012**
- ◆ **2013 to 2018**
- ◆ **2019**



Types of Renovations

SELECT ALL THAT APPLY

- ◆ **Cosmetic improvements (interior or exterior)**
(Examples: new paint, siding, furniture, wallpaper, carpeting)
- ◆ **Addition or annex**
- ◆ **Reduction of enclosed floorspace**
(Example: demolition of unused wing of building)
- ◆ **Interior wall re-configuration**
(Example: individual offices turned into area for cubicles)
- ◆ **Roof replacement**
- ◆ **Window replacement**
- ◆ **HVAC (heating, ventilation, or air conditioning) equipment upgrade**
- ◆ **Lighting upgrade**
- ◆ **Plumbing system upgrade**
(includes hot water heaters)
- ◆ **Electrical upgrade**
- ◆ **Insulation upgrade**
- ◆ **Fire, safety, or security upgrade**
- ◆ **Structural upgrade**
(Examples: foundation upgrade, seismic upgrade)
- ◆ **Other**



B1

Activity in Building

- ◆ Office / Professional
- ◆ Data center
- ◆ Warehouse / Storage
- ◆ Food sales or service
- ◆ Enclosed mall
- ◆ Retail (other than mall)
- ◆ Education
- ◆ Religious worship
- ◆ Public assembly
- ◆ Health care
- ◆ Service
- ◆ Lodging
- ◆ Public order and safety
- ◆ Residential
- ◆ Industrial / Manufacturing
- ◆ Agricultural
- ◆ Vacant
- ◆ Other

B1

B2

Office Type

- ◆ **Administrative or professional office building**

(Examples: consulting, insurance, law, utility/telephone company, publishing, or college administration)

- ◆ **Government office**

- ◆ **Mixed-use office**

- ◆ **Bank or other financial institution**

- ◆ **Doctor's or dentist's office**

- ◆ **Sales or leasing office**

(Examples: vehicles or real estate)

- ◆ **Contractor's office**

(Examples: construction, plumbing, or HVAC)

- ◆ **Non-profit or social services office**

- ◆ **Research and development office**

- ◆ **City hall or city center**

- ◆ **Religious office**
- ◆ **Call center**
- ◆ **Courthouse or probation office**
- ◆ **Veterinarian's office**
- ◆ **Vacant**
- ◆ **Other type of office**



B3

Warehouse Type

B3

- ◆ **Non-refrigerated warehouse**
- ◆ **Refrigerated warehouse**
- ◆ **Distribution or shipping center**
- ◆ **Public rental storage units**
- ◆ **Vehicle storage and/or maintenance**
(car barn)
- ◆ **Other storage building**
- ◆ **Airplane hangar**
- ◆ **Vacant**
- ◆ **Other type of warehouse**



B4

Food Sales or Service Type

- ◆ Restaurant or cafeteria
- ◆ Fast food
- ◆ Bar, pub, or lounge
- ◆ Grocery store, supermarket, or specialty food market
- ◆ Gas station with a convenience store
- ◆ Convenience store
- ◆ Beer, wine, or liquor store
- ◆ Reception hall
- ◆ Catering service
- ◆ Coffee, doughnut, or bagel shop
- ◆ Ice cream or frozen yogurt shop
- ◆ Bakery
- ◆ Vacant
- ◆ Other type of food sales or service

B4

B5

Retail Type

- ◆ **Retail store**

(Examples: big-box chain store, department store, furniture, clothing, hardware, drugstore, bookstore, building supplies, auto parts, lumber, home improvement, farm equipment, lawn and garden, floral, crafts, gifts, antiques, pawn shop, or wholesale club)

- ◆ **Bank or other financial institution**

- ◆ **Convenience store**

- ◆ **Beer, wine, or liquor store**

- ◆ **Rental center**

(Examples: equipment, furnishings, or movies)

- ◆ **Dealership or showroom for vehicles or boats**

- ◆ **Auto service or auto repair shop**

- ◆ **Studio or gallery**

- ◆ **Grocery store, supermarket, or specialty food market**

- ◆ **Salon, spa, or barber shop**
- ◆ **Copy center or printing shop**
- ◆ **Distribution or shipping center**
- ◆ **Gas station with a convenience store**
- ◆ **Gas station**
- ◆ **Post office, postal center, or mail sorting**
- ◆ **Recreation**
(Examples: gymnasium, health club, bowling alley, ice rink, field house, or indoor racquet sports)
- ◆ **Repair shop**
- ◆ **Vacant**
- ◆ **Other type of retail**

B6

Education Type

- ◆ **Elementary school**
- ◆ **Middle or junior high school**
- ◆ **High school**
- ◆ **Other multi-grade primary or secondary school**
(any combination pre-K through 12)
- ◆ **College or university**
- ◆ **Preschool or daycare**
- ◆ **Adult education**
- ◆ **Career or vocational training**
- ◆ **Religious education**
- ◆ **Library**
- ◆ **Recreation**
(Examples: gymnasium, health club, bowling alley, ice rink, field house, or indoor racquet sports)

- ◆ **Entertainment or culture**

(Examples: museum, theater, cinema, sports arena, stadium, casino, or night club)

- ◆ **Laboratory**

- ◆ **Vacant**

- ◆ **Other type of classroom education**

B7

Public Assembly Type

- ◆ **Social or meeting**

(Examples: community center, lodge, meeting hall, convention center, event space, or senior center)

- ◆ **Recreation**

(Examples: gymnasium, health club, bowling alley, ice rink, field house, or indoor racquet sports)

- ◆ **Entertainment or culture**

(Examples: museum, theater, cinema, sports arena, stadium, casino, or night club)

- ◆ **Library**

- ◆ **Religious worship**

- ◆ **Funeral home**

- ◆ **Student activities center**

- ◆ **Armory**

- ◆ **Exhibition hall**

- ◆ **Transportation terminal**

(Examples: airport terminal, bus station, or train station)

- ◆ **Bar, pub, or lounge**

- ◆ **Vacant**

- ◆ **Other type of public assembly**



B8

Health Care Type

- ◆ Doctor's or dentist's office
- ◆ Clinic or other outpatient health care building
- ◆ Hospital (inpatient)
- ◆ Outpatient rehabilitation center
- ◆ Inpatient rehabilitation center
- ◆ Nursing home, assisted living center, or other residential care building
- ◆ Retirement home
- ◆ Veterinarian's office
- ◆ Laboratory
- ◆ Vacant
- ◆ Other type of health care

B8

B9

Service Type

- ◆ **Auto service or auto repair shop**
- ◆ **Vehicle storage and/or maintenance (car barn)**
- ◆ **Airplane hangar**
- ◆ **Car wash**
- ◆ **Gas station with a convenience store**
- ◆ **Gas station**
- ◆ **Building and grounds maintenance shop**
- ◆ **Contractor's office**
(Examples: construction, plumbing, or HVAC)
- ◆ **Kennel**
- ◆ **Repair shop**
- ◆ **Dry cleaner or laundromat**
- ◆ **Copy center or printing shop**
- ◆ **Post office, postal center, or mail sorting**
- ◆ **Distribution or shipping center**
- ◆ **Bank or other financial institution**

- ◆ **Salon, spa, or barber shop**
- ◆ **Bar, pub, or lounge**
- ◆ **Transportation terminal**
(Examples: airport terminal, bus station, or train station)
- ◆ **Recreation**
(Examples: gymnasium, health club, bowling alley, ice rink, field house, or indoor racquet sports)
- ◆ **Social or meeting**
(Examples: community center, lodge, meeting hall, convention center, event space, or senior center)
- ◆ **Student activities center**
- ◆ **Library**
- ◆ **Non-profit or social services office**
- ◆ **Funeral home**
- ◆ **Rental center**
(Examples: equipment, furnishings, or movies)
- ◆ **Vacant**
- ◆ **Other type of service**



B10

Lodging Type

- ◆ Hotel or resort
- ◆ Motel, inn, or bed and breakfast
- ◆ Dormitory, fraternity, or sorority
- ◆ Retirement home
- ◆ Nursing home, assisted living center, or other residential care building
- ◆ Convent or monastery
- ◆ Shelter, group home, or children's home
- ◆ Halfway house
- ◆ Jail, reformatory, or penitentiary
- ◆ Vacant
- ◆ Other type of lodging

B10



B11

Public Order and Safety Type

- ◆ Police station
- ◆ Fire station
- ◆ Combination police and fire station
- ◆ Jail, reformatory, or penitentiary
- ◆ Courthouse or probation office
- ◆ Halfway house
- ◆ Armory
- ◆ City hall or city center
- ◆ Vacant
- ◆ Other type of public order and safety

B11



B12

Residential Type

B12

- ◆ Hotel or resort
- ◆ Motel, inn, or bed and breakfast
- ◆ Dormitory, fraternity, or sorority
- ◆ Retirement home
- ◆ Nursing home, assisted living center, or other residential care building
- ◆ Convent or monastery
- ◆ Shelter, group home, or children's home
- ◆ Halfway house
- ◆ Jail, reformatory, or penitentiary
- ◆ Other type of residential

B13

Other Activity Type

- ◆ **Laboratory**
- ◆ **Airplane hangar**
- ◆ **Broadcasting studio**
- ◆ **Telephone switching facilities**
- ◆ **Funeral home**
- ◆ **Crematorium**
- ◆ **Vehicle storage and/or maintenance (car barn)**
- ◆ **Public restroom, locker room, or changing area**
- ◆ **Indoor parking garage**
- ◆ **Dry cleaner or laundromat**
- ◆ **Library**
- ◆ **Post office, postal center, or mail sorting**
- ◆ **Distribution or shipping center**
- ◆ **Social or meeting**

(Examples: community center, lodge, meeting hall, convention center, event space, or senior center)

- ◆ **Recreation**

(Examples: gymnasium, health club, bowling alley, ice rink, field house, or indoor racquet sports)

- ◆ **Transportation terminal**

(Examples: airport terminal, bus station, or train station)

- ◆ **Veterinarian's office**

- ◆ **Vacant**

- ◆ **Agricultural building with some retail space**

- ◆ **Manufacturing or industrial building with some retail space**

- ◆ **Some other activity**



B14

Type of Complex

- ◆ College, university, or junior college
- ◆ Primary or secondary school [grades K-12]
- ◆ Other type of school
- ◆ Office complex
- ◆ Retail complex
- ◆ Storage or distribution complex
- ◆ Religious campus or complex
- ◆ Hospital or other health care complex
- ◆ Lodging or resort complex
- ◆ Post office complex
- ◆ Prison or correctional facility
- ◆ Other type of government complex
- ◆ Industrial complex
- ◆ Transportation complex such as a terminal, depot, or airport
- ◆ Other type of campus or complex

B14

B15

Establishment Activity

- ◆ **Retail store**

- ◆ **Food sales**

(Examples: grocery store, supermarket, convenience store, butcher shop, seafood market, produce market)

- ◆ **Food service / Bar / Night club**

(Examples: restaurant, fast food, sandwich shop, pizzeria, coffee shop, doughnut or bagel shop, ice cream parlor, bakery, bar, night club)

- ◆ **Dry cleaner / Laundromat**

- ◆ **Office / Financial**

(Examples: bank, credit union, insurance, tax assistance, loans, check cashing, real estate, lawyer, accountant, recruiting)

- ◆ **Medical / Dental**

- ◆ **Education / Child care**

(Examples: tutoring, adult education, art school, preschool, daycare)

- ◆ **Movie theater / Cinema**

- ◆ **Salon / Spa / Barber shop**

- ◆ **Fitness center / Dance studio**

(Includes martial arts)

- ◆ **Vacant**

- ◆ **Other**

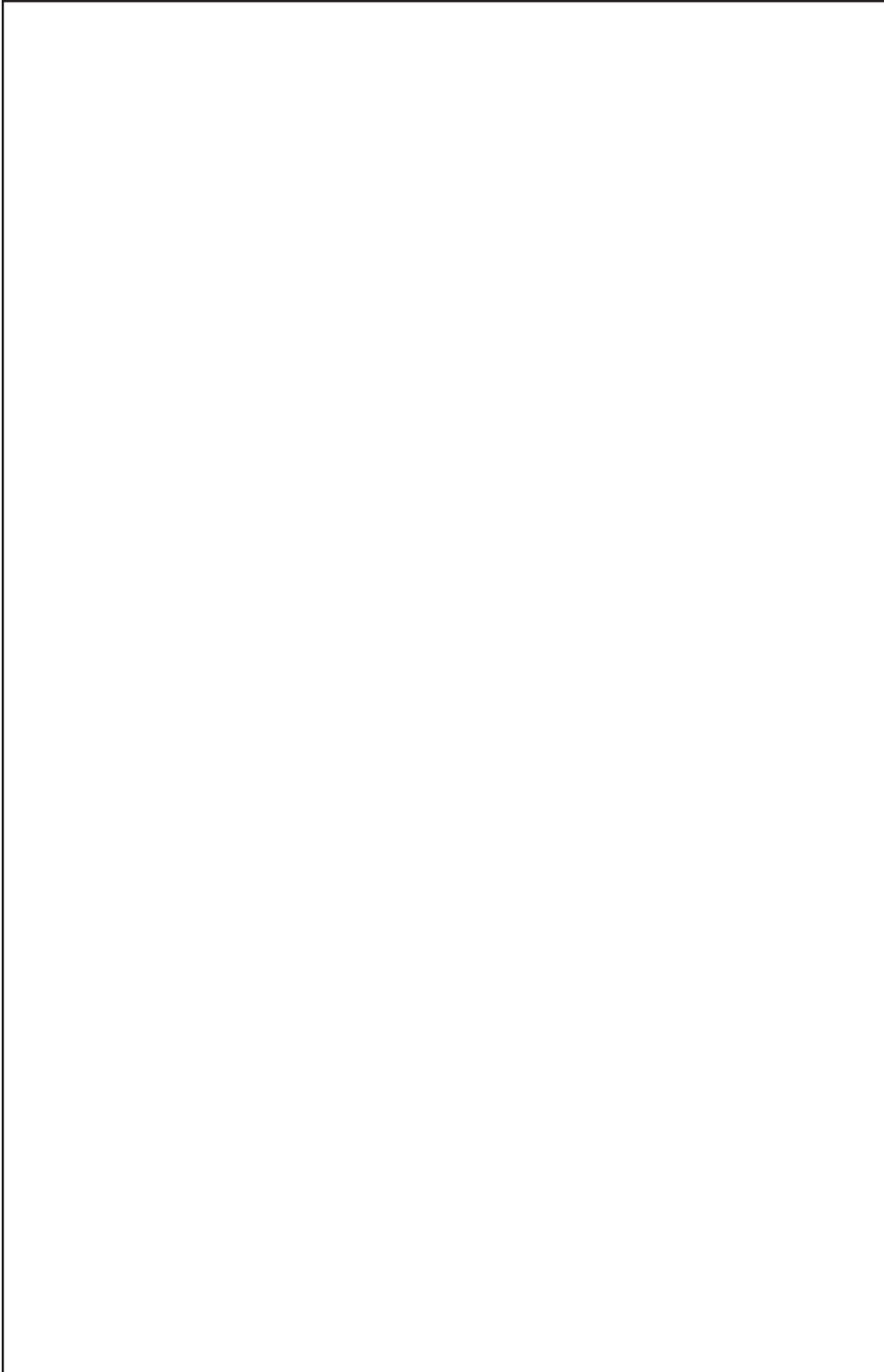


C1

Building Owner

- ◆ **Real estate investment trust (REIT)**
- ◆ **Other public or private corporation, partnership, LLC, or LLP**
- ◆ **Individual owner(s)**
- ◆ **Religious organization**
- ◆ **Non-profit organization**
(other than religious or government)
- ◆ **Private academic institution**
- ◆ **Other**

C1



C2

**Number of Businesses or
Organizations Category**

- ◆ Zero
- ◆ One
- ◆ 2 to 5
- ◆ 6 to 10
- ◆ 11 to 20
- ◆ 21 to 50
- ◆ 51 to 100
- ◆ More than 100

C2



Purchasing Power / Operations

- ◆ **Property management company or leasing agent**
- ◆ **Business owner or tenant**
- ◆ **Facilities personnel employed directly by the building owner**
- ◆ **Facilities or energy management consultant**
- ◆ **Volunteer member of the organization**
- ◆ **Manager with general supervisory duties**
- ◆ **Other**



Weekly Hours Category

- ◆ **1 to 39**
(For example, open only a few hours per day, or only on weekends)
- ◆ **40 to 48**
(For example, open 8 or 9 hours a day, Monday through Friday)
- ◆ **49 to 60**
(For example, open 10 to 12 hours a day, Monday through Friday, or 7 or 8 hours a day, every day)
- ◆ **61 to 84**
(For example, open 9 to 12 hours a day, every day)
- ◆ **85 to 167**
(Open most of the time)
- ◆ **168**
(Open 24 hours a day)

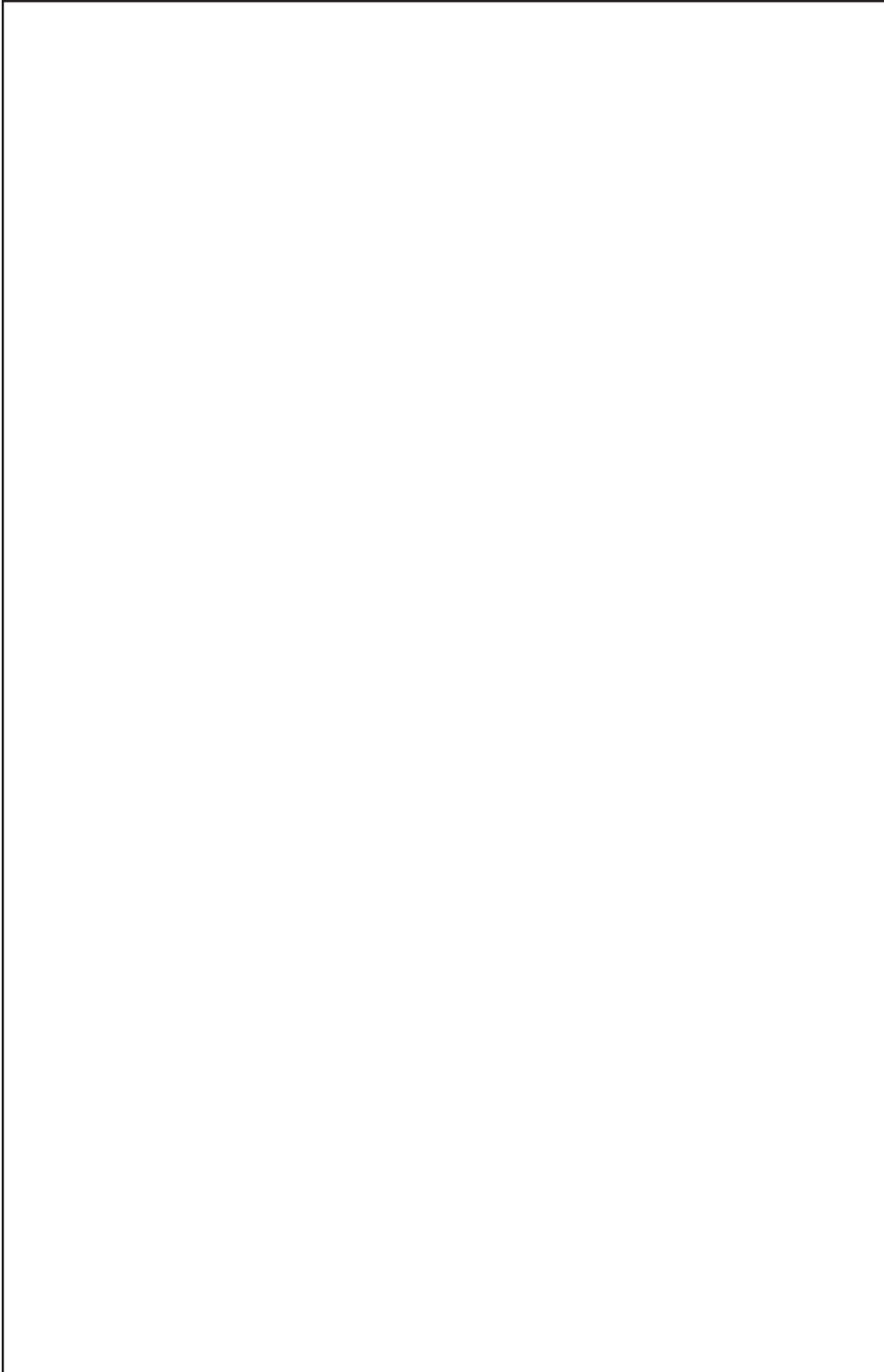


C5

**Number of Workers Category
(Main Shift)**

- ◆ None
- ◆ 1 to 4
- ◆ 5 to 9
- ◆ 10 to 19
- ◆ 20 to 49
- ◆ 50 to 99
- ◆ 100 to 249
- ◆ 250 to 499
- ◆ 500 to 999
- ◆ 1,000 to 2,499
- ◆ 2,500 to 4,999
- ◆ 5,000 or More

C5



D1

Energy Sources Used

SELECT ALL THAT APPLY

- ◆ Electricity
- ◆ Natural gas
- ◆ Fuel oil, diesel, or kerosene
- ◆ Propane, also known as bottled gas or LPG
- ◆ District steam piped in from a separate building or utility
- ◆ District hot water piped in from a separate building or utility
- ◆ District chilled water piped in from a separate building or utility
- ◆ Wood
- ◆ Coal
- ◆ Solar
- ◆ Other source

D1

D2

Heating Equipment Types

SELECT ALL THAT APPLY

◆ **Packaged central units (such as rooftop units, or RTUs)**

(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)

◆ **Boilers that produce steam or hot water for space heating**

◆ **Heat pumps (other than components of a packaged central unit)**

(These types of heat pumps may also be referred to as split system heat pumps.)

◆ **Residential-type furnaces**

(Furnaces heat air directly and circulate the warm air through ducts and vents.)

- ◆ **Individual space heaters**

(Individual space heaters directly heat only the room or area where they are located. Examples include electric baseboards, electric radiant or quartz heaters, heating panels, infrared radiant heaters, gas- or kerosene-fired unit heaters, wood stoves, heating elements in Packaged Terminal Air Conditioners (PTACs), and Packaged Terminal Heat Pumps (PTHPs).)

- ◆ **Fireplaces**

- ◆ **Central air handlers**

- ◆ **Fan coil or induction units**

(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)

- ◆ **Duct reheat**

(Heating coils located within ducts)

- ◆ **Radiators**

(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)

- ◆ **Radiant floor/ceiling panels**

- ◆ **Other heating equipment**

D3

Electric Heating Equipment Types

SELECT ALL THAT APPLY

◆ **Packaged central units (such as rooftop units, or RTUs)**

(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)

◆ **Boilers that produce steam or hot water for space heating**

◆ **Heat pumps (other than components of a packaged central unit)**

(These types of heat pumps may also be referred to as split system heat pumps.)

◆ **Residential-type furnaces**

(Furnaces heat air directly and circulate the warm air through ducts and vents.)

- ◆ **Individual space heaters**

(Individual space heaters directly heat only the room or area where they are located. They can be freestanding or self-contained units mounted along baseboards or in walls, ceilings, or windows. Examples include electric baseboards, electric radiant or quartz heaters, heating panels, infrared radiant heaters, heating elements in Packaged Terminal Air Conditioners (PTACs), and Packaged Terminal Heat Pumps (PTHPs).)

- ◆ **Fireplaces**

- ◆ **Duct reheat**

(Heating coils located within ducts)

- ◆ **Other heating equipment**

D4

Natural Gas / Propane Heating Equipment Types

SELECT ALL THAT APPLY

◆ **Packaged central units (such as rooftop units, or RTUs)**

(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)

◆ **Boilers that produce steam or hot water for space heating**

◆ **Heat pumps (other than components of a packaged central unit)**

(These types of heat pumps may also be referred to as split system heat pumps.)

◆ **Residential-type furnaces**

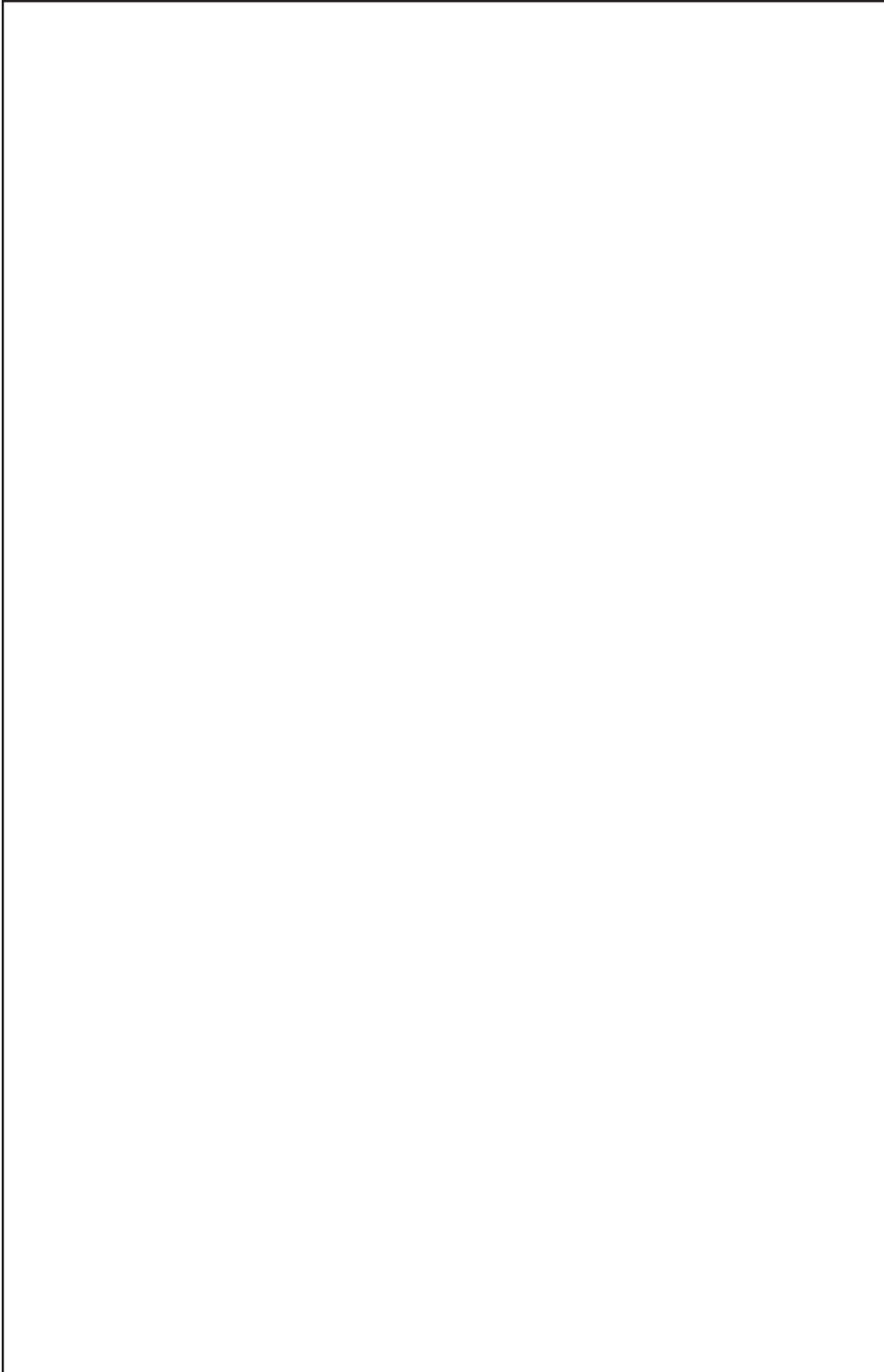
(Furnaces heat air directly and circulate the warm air through ducts and vents.)

- ◆ **Individual space heaters**

(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fire unit heaters, wood stoves, and infrared radiant heaters.)

- ◆ **Fireplaces**

- ◆ **Other heating equipment**



D5

**Fuel Oil/Diesel/Kerosene
Heating Equipment Types**

SELECT ALL THAT APPLY

- ◆ **Boilers that produce steam or hot water for space heating**
- ◆ **Residential-type furnaces**
(Furnaces heat air directly and circulate the warm air through ducts and vents.)
- ◆ **Individual space heaters**
(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fire unit heaters, wood stoves, and infrared radiant heaters.)
- ◆ **Other heating equipment**

D5



D6

Heating Distribution Types

SELECT ALL THAT APPLY

◆ **Central air handlers**

◆ **Fan coil or induction units**

(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)

◆ **Duct reheat**

(Heating coils located within ducts)

◆ **Radiators**

(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)

◆ **Radiant floor/ceiling panels**

◆ **Water loop heat pumps**

◆ **Other distribution equipment**

D6



D7

Wood Heating Equipment Types

SELECT ALL THAT APPLY

D7

◆ **Residential-type furnaces**

(Furnaces heat air directly and circulate the warm air through ducts and vents.)

◆ **Individual space heaters**

(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fire unit heaters, wood stoves, and infrared radiant heaters.)

◆ **Fireplaces**

◆ **Other heating equipment**



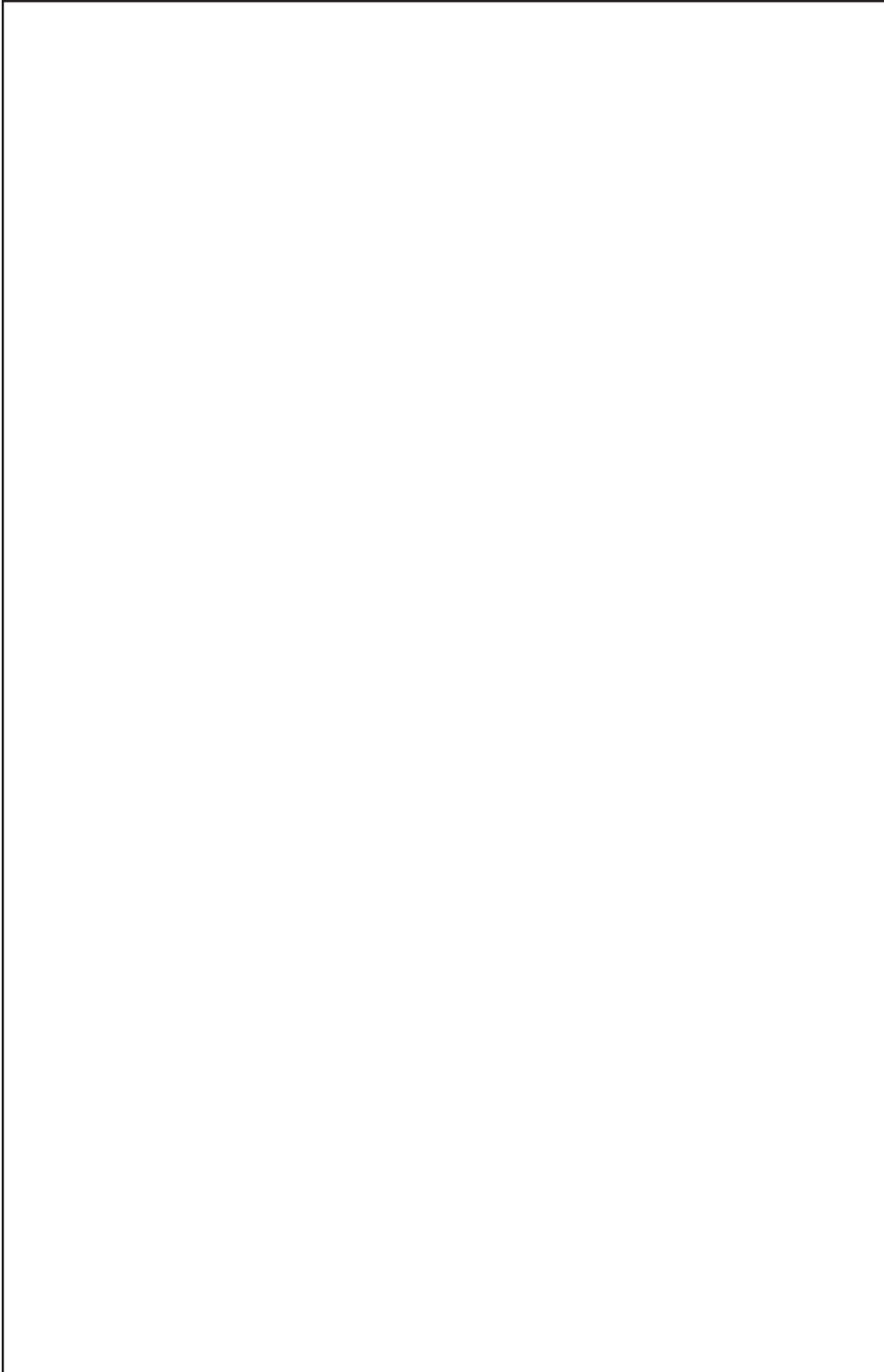
D8

Coal Heating Equipment Types

SELECT ALL THAT APPLY

- ◆ **Boilers that produce steam or hot water for space heating**
- ◆ **Residential-type furnaces**
(Furnaces heat air directly and circulate the warm air through ducts and vents.)
- ◆ **Other heating equipment**

D8



D9

Heating Equipment Types

SELECT ALL THAT APPLY

◆ **Packaged central units (such as rooftop units, or RTUs)**

(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)

◆ **Boilers that produce steam or hot water for space heating**

◆ **Residential-type furnaces**

(Furnaces heat air directly and circulate the warm air through ducts and vents.)

◆ **Individual space heaters**

(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fire unit heaters, wood stoves, and infrared radiant heaters.)

◆ **Other heating equipment**

D9



D10

Type of Heat Pump

SELECT ALL THAT APPLY

- ◆ Air source heat pump
- ◆ Ground source or ground water heat pump (geothermal)
- ◆ Combination air source and geothermal
- ◆ Water loop heat pump

D10

D11

Electric Air Conditioning Equipment Types

SELECT ALL THAT APPLY

◆ **Packaged air conditioning units (such as rooftop units, or RTUs)**

(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Packaged air conditioning units may also be known as self-contained units or packaged direct expansion (DX) units.)

◆ **Central chillers that chill water for air conditioning**

◆ **Heat pumps for air conditioning (other than components of a packaged central system)**

(These types of heat pumps may also be referred to as split system heat pumps.)

◆ **Residential-type split system air conditioners**

(Central split system air conditioners cool air directly and use a fan or blower to circulate it through a system of air ducts without using chilled water. These systems consist of an outdoor condensing unit connected by refrigerant lines to an indoor evaporator or cooling coil.)

- ◆ **Individual room or portable air conditioners**

(Room or portable air conditioners directly cool only the room or area where they are located. Room air conditioners are self-contained units installed in or through walls or windows, and include Packaged Terminal Air Conditioners (PTACs), Packaged Terminal Heat Pumps (PTHPs), and window air conditioning units. Portable air conditioners are freestanding with a tube to vent warm air outside.)

- ◆ **“Swamp” coolers or evaporative coolers**

(A unit that uses the cooling effect of water evaporation to cool air.)

- ◆ **Other air conditioning equipment**



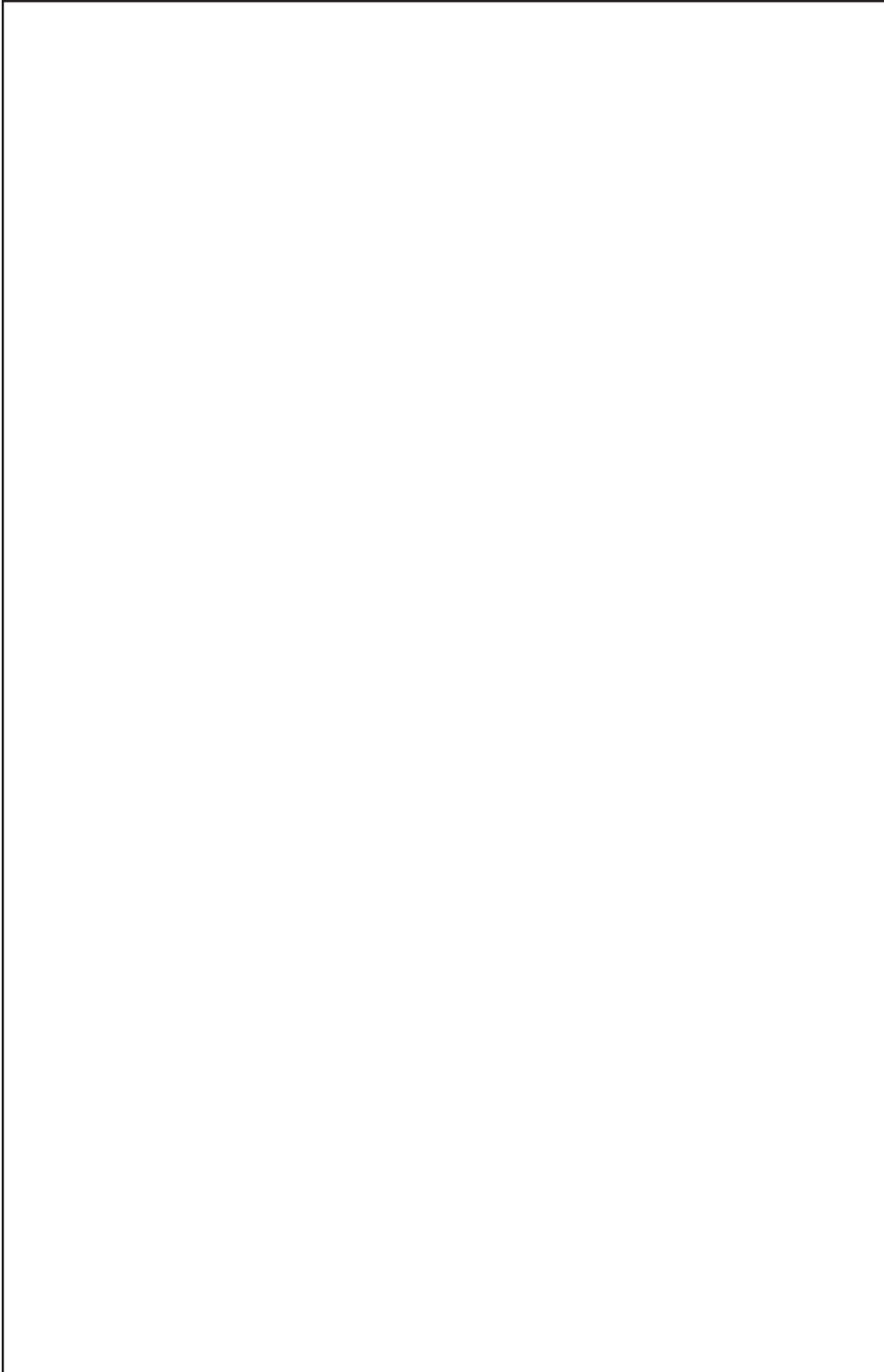
D12

Air Conditioning Equipment Types

SELECT ALL THAT APPLY

- ◆ **Central chillers that chill water for air conditioning**
- ◆ **Other air conditioning equipment**

D12



D13

Chiller/District Chilled Water Distribution

SELECT ALL THAT APPLY

D13

- ◆ **Central air handlers**

- ◆ **Fan coil or induction unit**

(Fan coil units, including unit ventilators, contain a cooling coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the cooling coil and circulate the air within a room.)

- ◆ **Chilled beam**

(A chilled beam has pipes of chilled water that pass through a beam in or near the ceiling.)

- ◆ **Water loop heat pump**

- ◆ **Other cooling distribution**



D14

Type of Chiller

SELECT ALL THAT APPLY

◆ **Air-cooled**

(Chiller that uses a vapor-compression refrigeration cycle and has an air-cooled condenser.)

◆ **Water-cooled**

(Chiller that uses a vapor-compression refrigeration cycle and has a water-cooled condenser.)

◆ **Absorption**

(Chiller that uses an absorption-refrigeration cycle. Heat is used to drive the refrigeration cycle.)

D14



D15

Indoor Temperature Control

- ◆ **Setting a programmable thermostat to automatically change the temperature at certain times**
- ◆ **Manually adjusting the temperature setting**
- ◆ **Turning the equipment on or off**
- ◆ **None of these methods**

D15



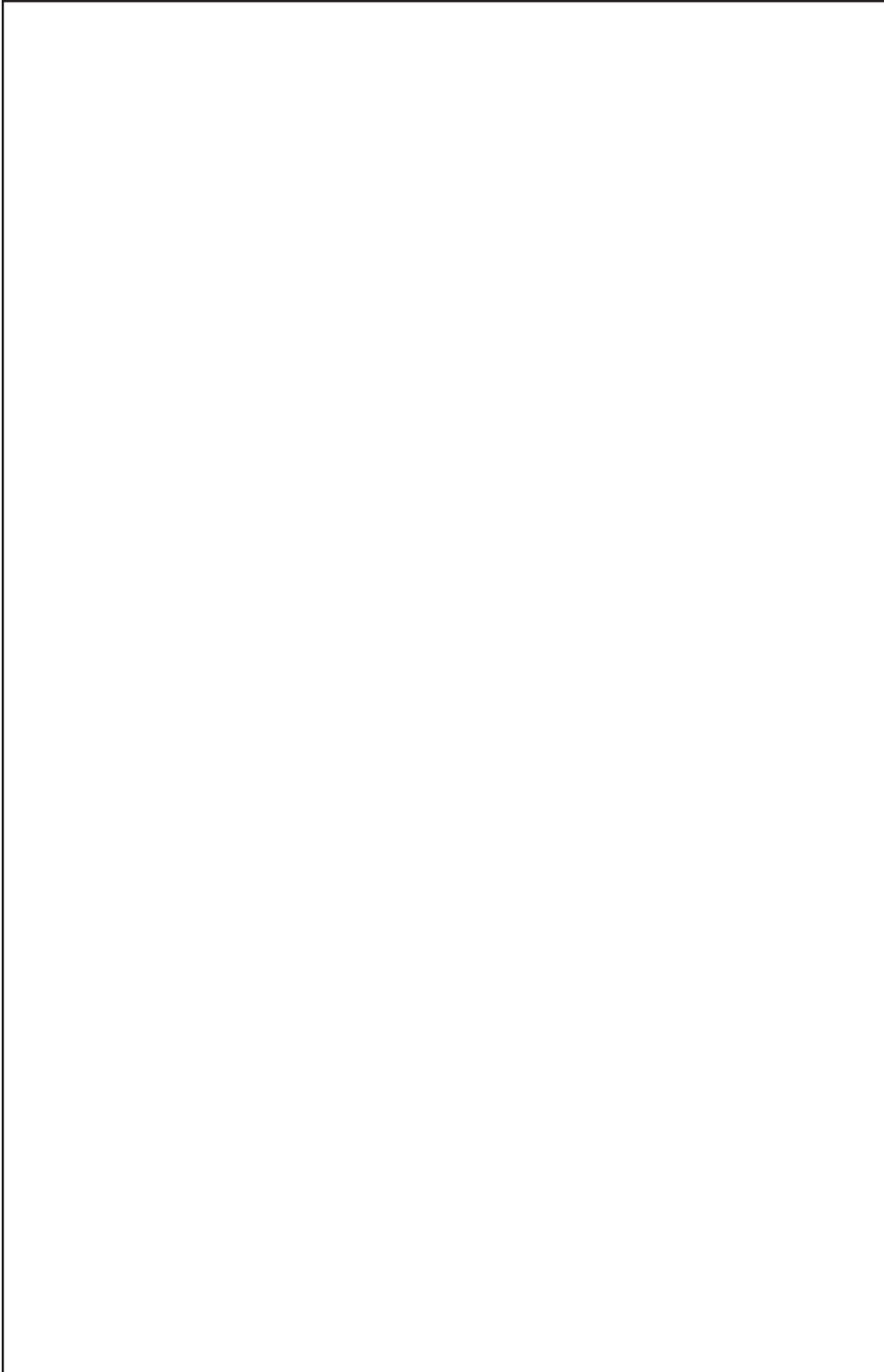
D16

Airflow Control System Types

SELECT ALL THAT APPLY

- ◆ Variable air volume (VAV) system
- ◆ Dedicated outside air system (DOAS)
- ◆ Demand controlled ventilation (DCV)
- ◆ None of these types

D16



D17

Electricity Generation Technologies

SELECT ALL THAT APPLY

- ◆ **Solar panels used to generate electricity**
- ◆ **Reciprocating engine generator**
- ◆ **Fuel cells**
- ◆ **Large turbines**
- ◆ **Microturbines**
- ◆ **Wind turbines**
- ◆ **Some other technology**

D17



D18

Electricity Generation Technologies

SELECT ALL THAT APPLY

- ◆ Reciprocating engine generator
- ◆ Fuel cells
- ◆ Large turbines
- ◆ Microturbines
- ◆ Wind turbines
- ◆ Some other technology
- ◆ No other electricity generation technologies used

D18



D19

**Amount of Propane Used
(Gallons or Pounds)**

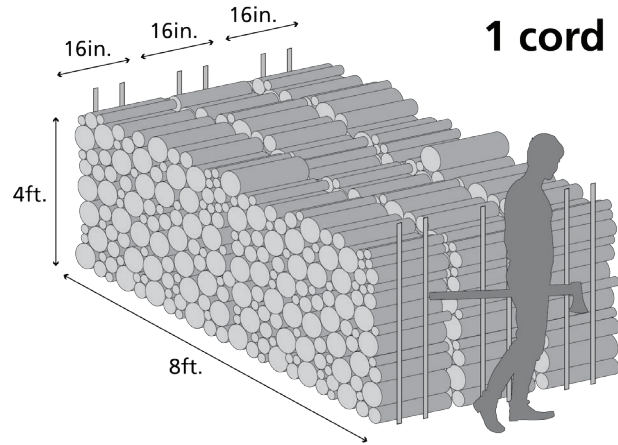
D19

- ◆ Less than 100
- ◆ 100 to 499
- ◆ 500 to 999
- ◆ 1,000 or more



D20

Amount of Wood Burned



D20

- ◆ **Less than 1 cord**
- ◆ **1 to 9 cords**
- ◆ **10 to 20 cords**
- ◆ **More than 20 cords**



D21

Wood Expenditures Category

- ◆ \$1 to \$100
- ◆ \$101 to \$500
- ◆ \$501 to \$1,000
- ◆ \$1,001 to \$2,000
- ◆ Over \$2,000

D21

E1

Type of Food Preparation or Serving Area

SELECT ALL THAT APPLY

◆ **Employee lounge, breakroom, vending area,
or pantry**

(Very limited cooking such as coffeepots and
microwaves)

◆ **Small kitchen area**

(Similar to a residential kitchen)

◆ **Snack bar, concession stand, coffee shop, or
breakfast service**

(Some food preparation such as a grill or
warming areas)

◆ **Fast food or small restaurant**

(Smaller than ~3,000 square feet; includes area for
food preparation and customer seating)

◆ **Cafeteria or large restaurant**

(Larger than ~3,000 square feet; includes area for food
preparation and customer seating)

- ◆ **Large kitchen, commercial kitchen, or other large food preparation area**

(Area for high-volume food preparation such as in a pastry shop or bakery, catering service, culinary school, or nursing home; usually no customer seating)

- ◆ **Other type of food preparation or serving area**
- ◆ **None of these**



E2

Refrigeration Types

SELECT ALL THAT APPLY

- ◆ **Full-size residential-type refrigerators / freezers**
- ◆ **Half-size or compact refrigerators**
- ◆ **Walk-in refrigeration / freezer units**
- ◆ **Open refrigerated / freezer cases or cabinets**
(Units with flexible covers, plastic strips, or no covers, such as: produce, dairy, and deli cases; salad bars; and sandwich preparation units)
- ◆ **Closed refrigerated / freezer cases or cabinets**
(Units with doors that shut, such as beverage display coolers, grocery coolers or freezers, dessert displays, under-counter coolers, and floral display coolers)
- ◆ **Refrigerated vending machines**
(Examples: soda, juice, water, or frozen dessert machines)
- ◆ **Commercial ice makers**
- ◆ **Large cold storage areas**
(Such as within a refrigerated warehouse)

E2



E3

Types of Computing Equipment

SELECT ALL THAT APPLY

- ◆ **Desktop computers**
- ◆ **Laptop computers**
- ◆ **Tablets**
- ◆ **Servers**
- ◆ **None of these types**

E3



E4

Desktops/Laptops Category

E4

- ◆ 1 to 4
- ◆ 5 to 9
- ◆ 10 to 19
- ◆ 20 to 49
- ◆ 50 to 99
- ◆ 100 to 249
- ◆ 250 to 499
- ◆ 500 to 999
- ◆ 1,000 to 2,499
- ◆ 2,500 to 4,999
- ◆ 5,000 or more



E5

Servers Category

- ◆ 1 to 4
- ◆ 5 to 24
- ◆ 25 to 499
- ◆ 500 or more

E5



E6

Computer Areas

SELECT ALL THAT APPLY

- ◆ **Server closet**
- ◆ **Data center**
- ◆ **Computer-based training room**
(Room used for hands-on computer training, where every person or every two people have their own computer)
- ◆ **Student or public computer center**
(Such as at a school, library, hotel, or community center)
- ◆ **Trading floor**
(Large, open area with computers and electronic equipment that is used for trading stocks or other securities in financial markets)
- ◆ **None of these types**

E6



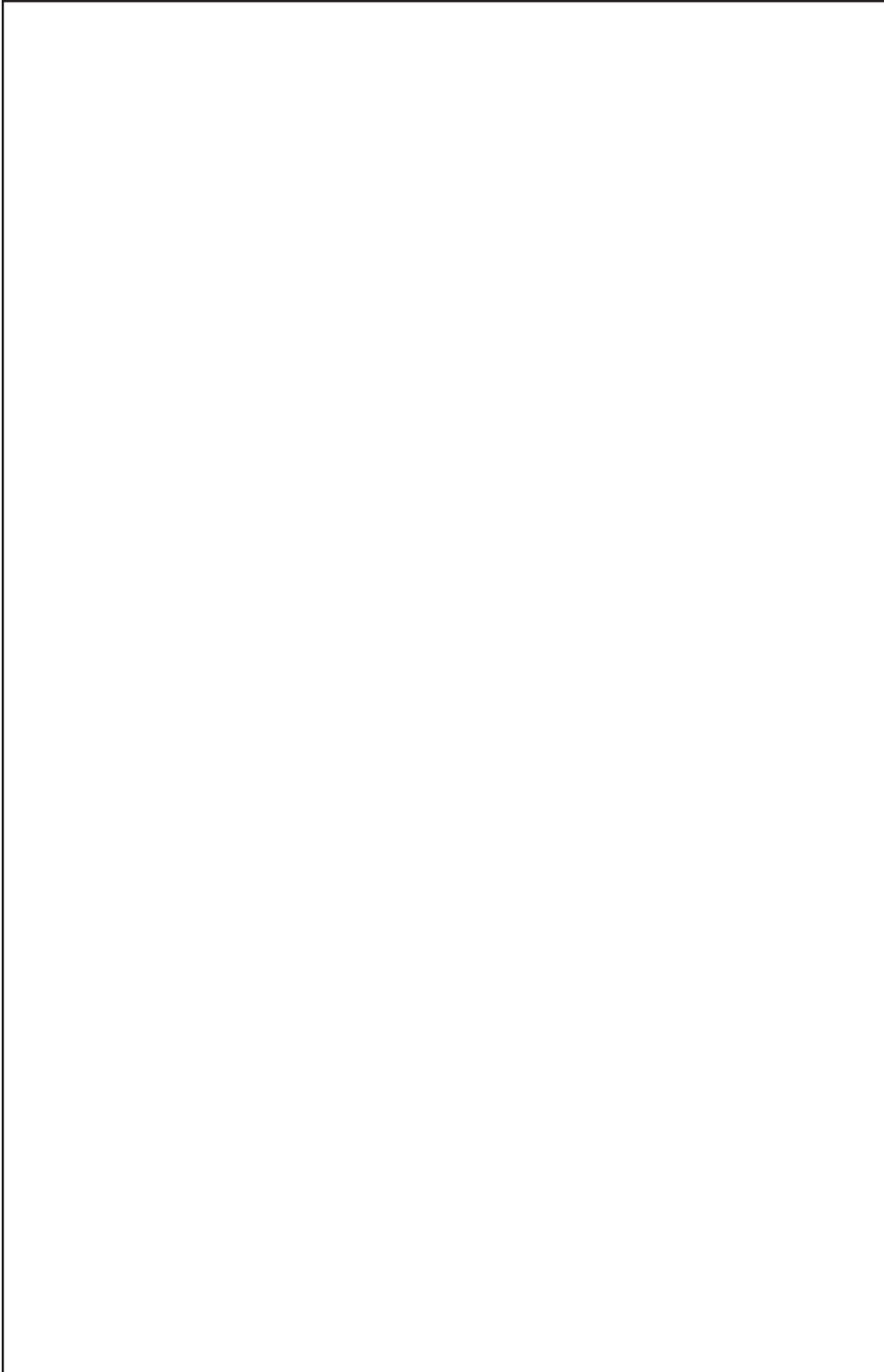
E7

Data Center Characteristics

SELECT ALL THAT APPLY

- ◆ Raised floor
- ◆ Separate cooling system
- ◆ Humidity control
- ◆ Uninterruptible power supply (UPS)
- ◆ Controlled access
- ◆ None of these

E7



E8

Equipment Types

SELECT ALL THAT APPLY

◆ **Large floor-standing office devices**

(any combination of printer / copier / scanner /
FAX machine)

◆ **Smaller desktop office devices**

(any combination of printer / copier / scanner /
FAX machine)

◆ **Interactive whiteboards**

◆ **Televisions or video displays**

◆ **Point-of-sales devices or cash registers**

◆ **None of these types**

E8



E9

Percent Lit

- ◆ 1 to 25 percent
- ◆ 26 to 50 percent
- ◆ 51 to 75 percent
- ◆ 76 to 100 percent
- ◆ Not lit at all

E9



E10

Lighting Types

SELECT ALL THAT APPLY

- ◆ **Fluorescent lighting other than compact fluorescent bulbs**
- ◆ **Compact fluorescent (CFL) bulbs**
- ◆ **Incandescent light bulbs, other than halogen bulbs**
- ◆ **Halogen bulbs**
- ◆ **High intensity discharge (HID) lights such as high pressure sodium, metal halide or mercury vapor**
- ◆ **Light-emitting diode (LED) lights**
- ◆ **Other type of lighting**

E10

E11

Lighting Controls or Strategies

SELECT ALL THAT APPLY

◆ **Scheduling**

(Lights are automatically dimmed or turned off at certain times of the day.)

◆ **Occupancy sensors that reduce lighting when rooms are unoccupied**

(Sensors that automatically turn off or dim lights when a person leaves a room or space.)

◆ **Multi-level lighting or dimming**

(Control devices that adjust lighting power by continuous dimming, stepped dimming, or stepped switching.)

◆ **Daylight harvesting**

(A lighting control and shade system that automatically dims light fixtures when natural light is available, and/or adjusts shades so that the combination of natural light and artificial light combine to provide the desired level of lighting.)

- ◆ **High-end trimming or light-level tuning**

(High-end trimming sets the maximum level of lighting to less than 100%. Light-level tuning sets the level even lower if a room or space needs less light.)

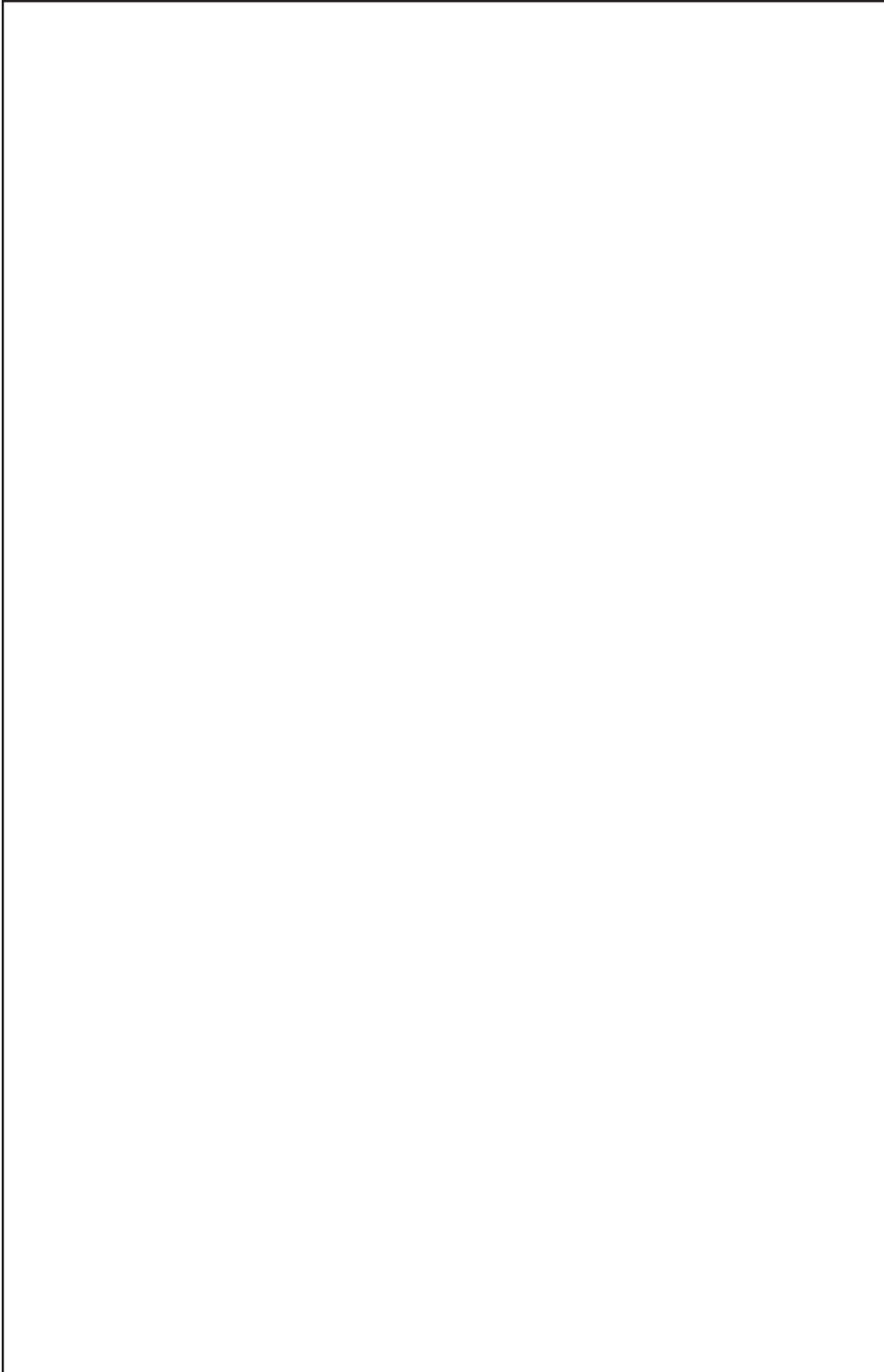
- ◆ **Plug-load control**

(Device that automatically turns off wall plugs and lights when a person leaves a room or space.)

- ◆ **Demand responsive lighting**

(Reduces lighting at times of peak electricity pricing.)

- ◆ **None of these**



E12

Daylighting / Conservation Features

SELECT ALL THAT APPLY

- ◆ Tinted window glass
- ◆ Reflective window glass
- ◆ External overhangs or awnings
- ◆ Skylights or atriums designed to provide light
- ◆ None of these

E12



F1

**Outside Uses Included in
Reported Electricity**

F1

SELECT ALL THAT APPLY

- ◆ Electric vehicle charging stations
- ◆ Parking lot lights
- ◆ Exterior lights
- ◆ Signs or billboards
- ◆ Large pumps
- ◆ Swimming pools
- ◆ Other



G1

Natural Gas Units

- ◆ **Hundred cubic feet (Ccf)**
- ◆ **Therms**
- ◆ **Thousand cubic feet (Mcf)**
- ◆ **Dekatherms**
- ◆ **Cubic feet (cf)**
- ◆ **Million Btu (MMBtu)**
- ◆ **Some other units**

G1



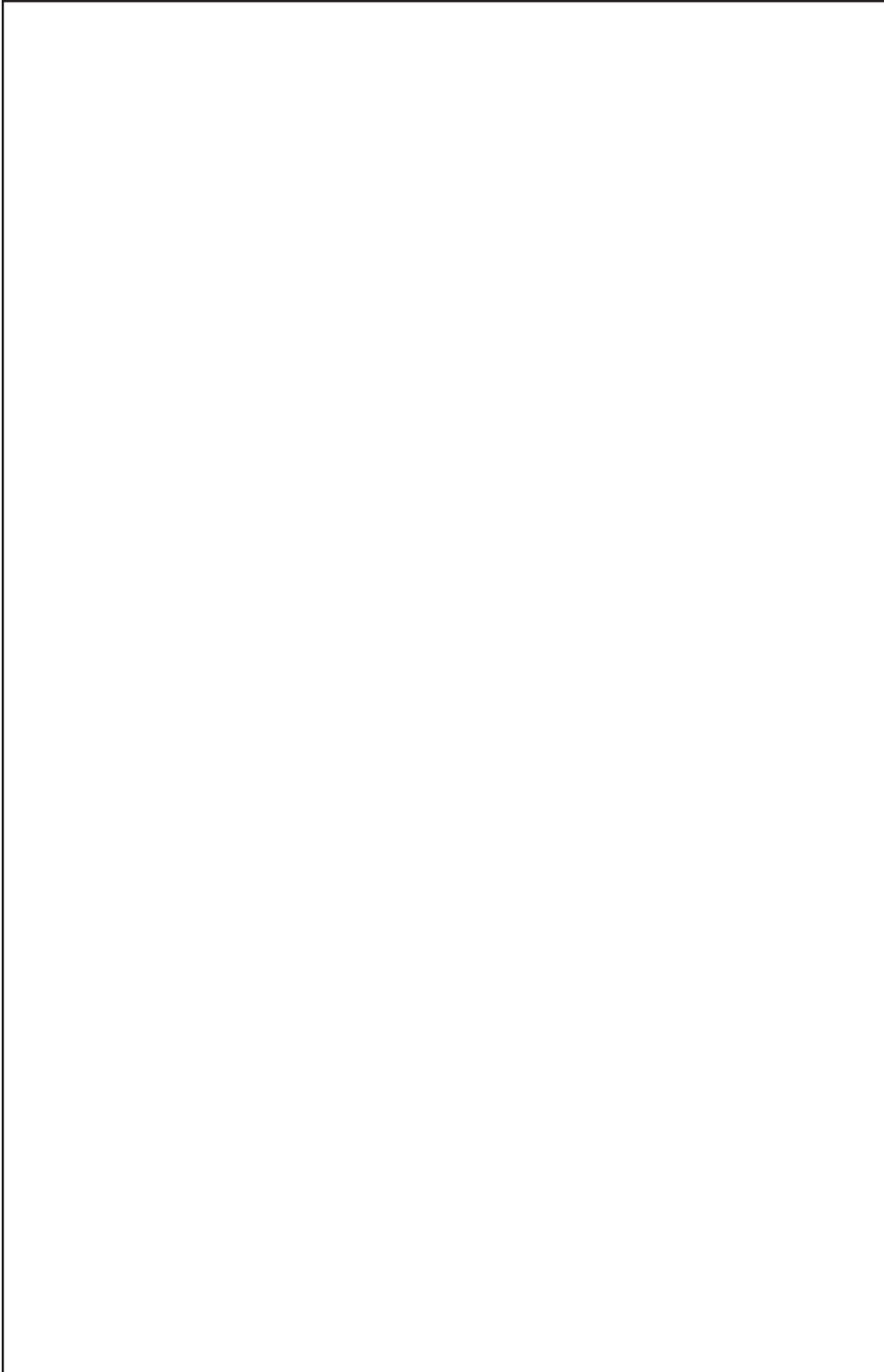
G2

**Outside Uses Included
in Reported Natural Gas**

SELECT ALL THAT APPLY

- ◆ Kilns
- ◆ Gas space heaters
- ◆ Exterior decorative lights
- ◆ Compressed natural gas vehicles
- ◆ Pumps not used in the building
- ◆ Other

G2



I1

District Steam Units

- ◆ **Thousand pounds**
- ◆ **Pounds**
- ◆ **Million Btu (MMBtu)**
- ◆ **Some other units**

I1

