OPERATIONS REPORT CARD

# CLASSROOM GENERAL INFORMATION SHEET

DISTRICT _____ SITE _____

DATE _____ TIME _____ ☐AM ☐PM CLASSROOM _____

TESTING AGENT NAME _____

PHONE _____ EMAIL _____

1. Room plan shape:
   - □ Rectangular
   - □ Non-Rectangular

2. Ceiling plane orientation:
   - □ Flat
   - □ Inclined
   - □ Combination

3. Room length _____ (ft)

4. Room width _____ (ft)

5. Ceiling height (average) _____ (ft)

6. Estimate the percent coverage of the ceiling finishes:

   _____ % Acoustical panels
   _____ % Painted gypsum board
   _____ % Gypsum board
   _____ % Exposed structure
   _____ % Other

7. Estimate the percent coverage of the flooring finishes:

   _____ % Carpet
   _____ % Resilient flooring
   _____ % Other

8. Estimate the percent coverage of any acoustical wall treatments:

   _____ % Fabric covered panel
   _____ % Cork board
   _____ % Other

OPERATIONS REPORT CARD

# CLASSROOM LIGHTING DATA SHEET

DISTRICT _____ SITE _____

DATE _____ TIME _____ ☐AM ☐PM CLASSROOM _____

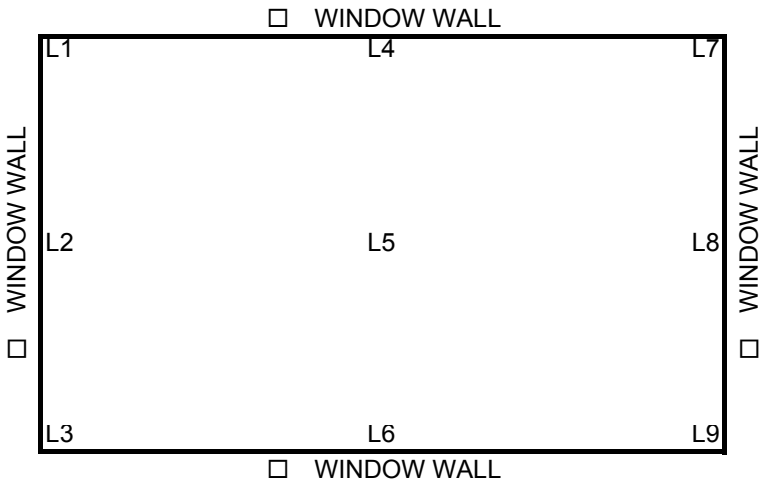
TESTING AGENT NAME _____

PHONE _____ EMAIL _____

| RECORDED ILLUMINATION LEVEL DATA | | | | |
|---|---|---|---|---|
| | TIME OF DAY | | | |
| MEASUREMENT LOCATION | EARLY AM | LATE AM | EARLY PM | LATE PM |
| L1: ROOM SIDE | | | | |
| L2: ROOM SIDE | | | | |
| L3: ROOM SIDE | | | | |
| L4: ROOM SIDE | | | | |
| L5: ROOM SIDE | | | | |
| L6: ROOM CENTER | | | | |
| L7: ROOM CENTER | | | | |
| L8: ROOM CENTER | | | | |
| L9: ROOM CENTER | | | | |

NOTE: SEE FIELD MEASUREMENTS SECTION FOR MEASUREMENT INSTRUCTIONS. PLEASE CHECK THE APPROPRIATE BOX ON THE DIAGRAM BELOW TO INDICATE THE LOCATION OF WINDOW WALLS

FRONT OF ROOM (INSTRUCTIONAL WALL)



OPERATIONS REPORT CARD

# CLASSROOM THERMAL DATA SHEET

DISTRICT _____ SITE _____

DATE _____ CLASSROOM _____

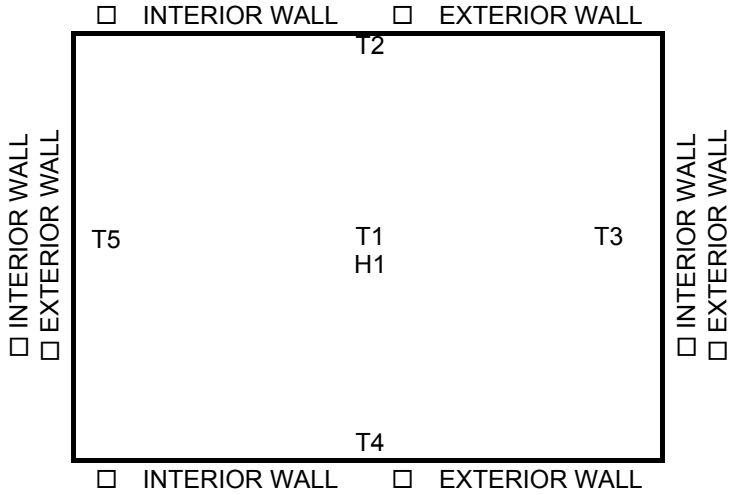
TESTING AGENT NAME _____

PHONE _____ EMAIL _____

| OCCUPIED RECORDED TEMPERATURE AND HUMIDITY DATA | | | | |
|---|---|---|---|---|
| | TIME OF DAY | | | |
| | EARLY AM | LATE AM | EARLY PM | LATE PM |
| MEASUREMENT LOCATION | | | | |
| H1: HUMIDITY | | | | |
| T1: TEMPERATURE MIDDLE OF ROOM | | | | |
| T2: TEMPERATURE FRONT OF ROOM | | | | |
| T3: TEMPERATURE ROOM SIDE | | | | |
| T4: TEMPERATURE REAR OF ROOM | | | | |
| T5: TEMPERATURE ROOM SIDE | | | | |

NOTE: COMPLETE EARLY AM MEASUREMENTS BEFORE 10AM, EITHER LATE AM MEASUREMENTS BEFORE NOON OR EARLY PM MEASUREMENTS BEFORE 2PM, AND LATE PM MEASUREMENTS AFTER 2:30PM. PLEASE NOTE ON THE DIAGRAM BELOW THE LOCATION OF INTERIOR AND EXTERIOR WALLS.

FRONT OF ROOM (INSTRUCTIONAL WALL)




HVAC INFORMATION

What is the occupied heating setpoint? _____

What is the unoccupied heating setpoint? _____

What is the occupied cooling setpoint? _____

What is the unoccupied cooling setpoint? _____

What is the principal HVAC type?

- □ Single Zone
- □ Multi Zone
- □ Dual Duct
- □ VAV
- □ Reheat
- □ Central AHU with VAV
- □ Fan Coil Units
- □ Unit Ventilators
- □ Packaged AC
- □ Steam/Hot Water/Convector
- □ Economizer
- □ Natrural Ventilation

OPERATIONS REPORT CARD

# CLASSROOM BACKGROUND NOISE DATA SHEET

DISTRICT _____ SITE _____

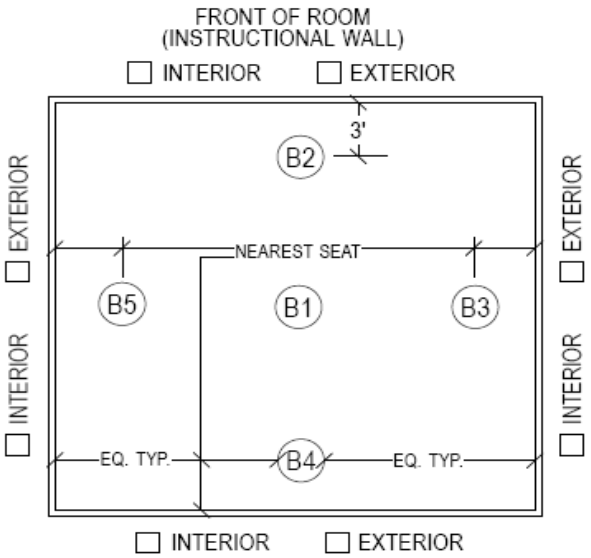
DATE _____ TIME _____ ☐AM ☐PM CLASSROOM _____

TESTING AGENT NAME _____

PHONE _____ EMAIL _____

| BACKGROUND NOISE MEASUREMENT DATA | | |
|---|---|---|
| | MEASURED A-WEIGHTED LEVEL (dBA) | |
| MEASUREMENT LOCATION | HVAC on | HVAC off |
| B1: MIDDLE OF ROOM (REQUIRED) | | |
| B2: FRONT OF ROOM (OPTIONAL*) | | |
| B3: ROOM SIDE (OPTIONAL*) | | |
| B4: REAR OR ROOM (OPTIONAL*) | | |
| B5: ROOM SIDE (OPTIONAL*) | | |

*REQUIRED IF NEAREST TO HVAC RETURN INLET




MEASUREMENT PROCEDURE CHECKLIST

- ☐ VERIFY HVAC SYSTEM IS ON/OFF
- ☐ CLOSE DOORS AND WINDOWS
- ☐ VERIFY THAT UNUSUAL BACKGROUND NOISE IS NOT PRESENT (E.G. VACUUMS, FLOOR POLISHERS, ETC.)
- ☐ VERIFY SOUND LEVEL METER CALIBRATION
- ☐ OBSERVE AND RECORD AVERAGE SOUND LEVEL AT REQUIRED LOCATION B1
- ☐ OBSERVE AND RECORD AVERAGE SOUND LEVEL AT LOCATION NEAREST TO THE RETURN INLET
- ☐ OBSERVE AND RECORD AVERAGE SOUND LEVELS AT REMAINING OPTIONAL MEASUREMENT LOCATIONS
- ☐ NOTE LOCATION OF RETURN AIR INLET ON ROOM DIAGRAM ABOVE
- ☐ RECORD ANY NOTES REGARDING BACKGROUND NOISE SOURCES AND/OR MEASUREMENT CONDITIONS:

orc OPERATIONS REPORT CARD

# CLASSROOM REVERBERATION DATA SHEET

DISTRICT _____ SITE _____

DATE _____ TIME _____ ☐AM ☐PM CLASSROOM _____

TESTING AGENT NAME _____

PHONE _____ EMAIL _____

**REVERBERATION MEASUREMENT DATA**

| OCTAVE BAND CENTER FREQUENCY (HZ) | REVERBERATION TIME (RT60) MEASUREMENTS | REVERBERATION TIME RT60 (SECONDS) MEASUREMENT LOCATION R1** | R2 |
|---|---|---|---|
| 500 | MEASUREMENT 1 (REQUIRED)* | | |
| 500 | MEASUREMENT 2 (OPTIONAL) | | |
| 500 | MEASUREMENT 3 (OPTIONAL) | | |
| 1000 | MEASUREMENT 1 (REQUIRED)* | | |
| 1000 | MEASUREMENT 2 (OPTIONAL) | | |
| 1000 | MEASUREMENT 3 (OPTIONAL) | | |
| 2000 | MEASUREMENT 1 (REQUIRED)* | | |
| 2000 | MEASUREMENT 2 (OPTIONAL) | | |
| 2000 | MEASUREMENT 3 (OPTIONAL) | | |

| SIGNAL-TO-NOISE MEASUREMENTS | SOUND LEVEL (dBA) | |
|---|---|---|
| SOURCE SOUND LEVEL | | |
| BACKGROUND NOISE LEVEL | | |

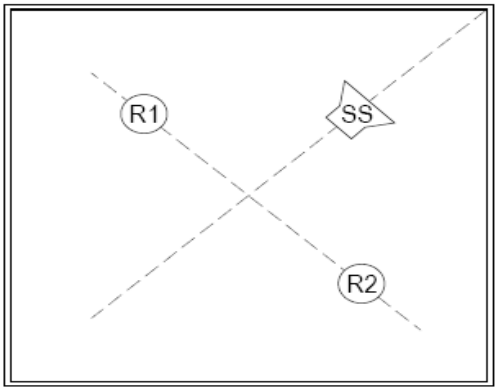
* OR INSTRUMENT GENERATED AVERAGE OF AT LEAST THREE MEASUREMENTS

☐ CHECK IF INSTRUMENT AVERAGE AT EACH POSITION

** OR INSTRUMENT GENERATED AVERAGE OF MINIMUM SIX MEASUREMENTS (THREE AT EACH POSITION)

MEASUREMENT PROCEDURE CHECKLIST

- ☐ VERIFY HVAC SYSTEM IS OFF
- ☐ CLOSE DOORS AND WINDOWS
- ☐ VERIFY THAT UNUSUAL BACKGROUND NOISE IS NOT PRESENT (E.G. VACUUMS, FLOOR POLISHERS, ETC.)
- ☐ MEASURE A-WEIGHTED BACKGROUND NOISE LEVEL AT MEASUREMENT LOCATIONS R1 AND R2 (SOUND SOURCE OFF)
- ☐ VERIFY SOUND SOURCE "SS" OPERATION AND MEASURE A-WEIGHTED SOUND LEVEL; ADJUST LEVEL TO AT LEAST 40 dB GREATER THAN MEASURED BACKGROUND NOISE LEVEL
- ☐ OBSERVE AND RECORD REVERBERATION TIMES AT MEASUREMENT LOCATIONS R1 AND R2 (MUTE SOUND SOURCE AS REQUIRED)
- ☐ RECORD ANY NOTES REGARDING MEASUREMENT CONDITIONS:



OPERATIONS REPORT CARD

# CLASSROOM SOUND INSULATION DATA SHEET

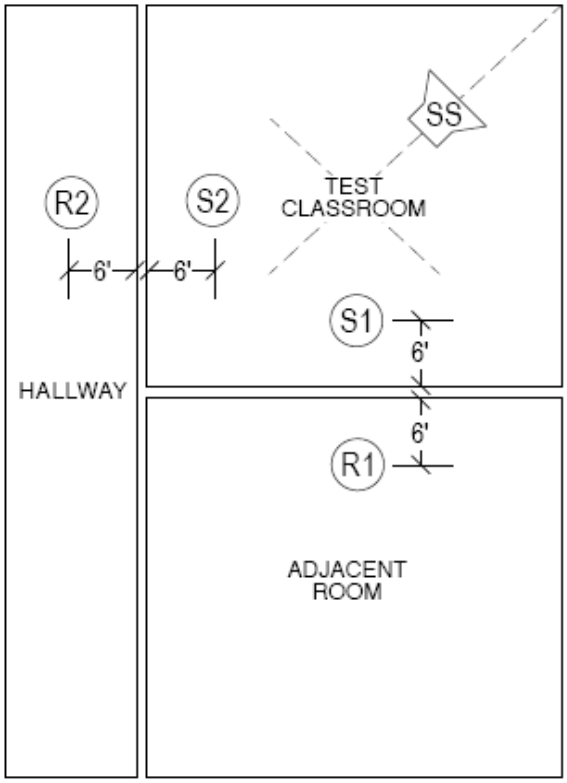
DISTRICT _____ SITE _____

DATE _____ TIME _____ ☐AM ☐PM CLASSROOM _____

TESTING AGENT NAME _____

PHONE _____ EMAIL _____

| SOUND INSULATION MEASUREMENT DATA | | |
|---|---|---|
| MEASURED VALUE OR CALCULATED DIFFERENCE | NEIGHBORING ROOM SOUND PATH (S1, R1) | HALLWAY SOUND PATH (S2, R2) |
| SOURCE MEASURED LEVEL (dBA) | =S1 | =S2 |
| RECEIVED MEASURED LEVEL (dBA) | =R1 | =R2 |
| A-WEIGHTED SOUND REDUCTION (dB) | =S1 - R1 | =S2 - R2 |
| BACKGROUND NOISE AT R1 AND R2 (dBA, NOISE SOURCE OFF) | | |




MEASUREMENT PROCEDURE CHECKLIST

- ☐ VERIFY HVAC SYSTEM IS OFF
- ☐ CLOSE DOORS AND WINDOWS
- ☐ VERIFY THAT UNUSUAL BACKGROUND NOISE IS NOT PRESENT (E.G. VACUUMS, FLOOR POLISHERS, ETC.)
- ☐ VERIFY SOUND LEVEL METER CALIBRATION
- ☐ ACTIVATE NOISE SOURCE
- ☐ OBSERVE AND RECORD AVERAGE SOUND LEVEL AT SOURCE LOCATIONS S1 AND S2
- ☐ OBSERVE AND RECORD AVERAGE SOUND LEVEL AT RECEIVE LOCATIONS R1 AND R2
- ☐ MUTE NOISE SOURCE
- ☐ OBSERVE AND RECORD AVERAGE BACKGROUND NOISE LEVEL AT RECEIVE LOCATIONS R1 AND R2
- ☐ RECORD ANY NOTES REGARDING BACKGROUND NOISE SOURCES AND/OR MEASUREMENT CONDITIONS:

_____

_____

_____

_____

orc OPERATIONS REPORT CARD

# CLASSROOM SETUP INFORMATION SHEET

DISTRICT _____ SITE _____

DATE _____ TIME _____ ☐AM ☐PM CLASSROOM _____

TESTING AGENT NAME _____

PHONE _____ EMAIL _____

1. Describe HVAC system:
   - □ Fan coil
   - □ Heat pump / packaged unit
   - □ Central system
   - □ Displacement
   - □ Other

2. Describe HVAC fan location:
   - □ In adjacent space
   - □ Above ceiliing
   - □ On roof
   - □ Through-wall in room
   - □ Corner closet
   - □ Exposed in room
   - □ Remote (central HVAC)

3. Describe location of compressor or chiller:
   - □ Packaged in-fan unit
   - □ In adjacent space
   - □ In ceiling
   - □ On roof
   - □ Remote (central HVAC)

4. Is supply ductwork:
   - □ Exposed
   - □ Concealed

5. Is the fan return:
   - □ Ducted
   - □ Unducted

6. Which of the following are components of the typical wall connected to another classroom:
   - □ Gypsum Board
   - □ 4-inch studs
   - □ 6-inch studs
   - □ Insulation

7. Which of the following are components of the typical wall connecting to a corridor:
   - □ Gypsum Board
   - □ 4-inch studs
   - □ 6-inch studs
   - □ Insulation

8. Describe any seals on the doorframe head and jambs:
   - □ Smoke seal
   - □ Stop-applied compression seal

9. Describe any seals on the corridor door bottom:
   - □ Sweep seal
   - □ Automatic door-bottom

10. Is this classroom separated from adjacent classrooms by an operable partition?
   - □ Yes
   - □ No

11. If there is a partition, has a clear area been maintained along its face on both sides? (ie: no desks, shelves, etc)
   - □ Yes
   - □ No

12. If there is a partition, are there posters, art charts, etc., posted across panel joints?
   - □ Yes
   - □ No

OPERATIONS REPORT CARD

# CLASSROOM IAQ DATA SHEET

DISTRICT _____ SITE _____

DATE _____ TIME _____ ☐AM ☐PM CLASSROOM _____

TESTING AGENT NAME _____

PHONE _____ EMAIL _____

Number of occupants during measurements: _____ Do doors and/or windows open to outside air? Y / N

MERV rating of air filters that supply room: _____ Number of filter changes per year: _____

Which mode is the classroom currently in? (circle one) Heating Cooling Natural Ventilation

Which of the following were indicated on the Occupant Survey for this classroom?

- ☐ Overall, unsatisfactory smell
- ☐ Specific Odors (a:trash b:cleaners c:exhaust d:tobacco e:printers f:carpet g:body odor h:perfumes i:art items j:outdoor smells k:other)
- ☐ Overall, unsatisfactory ventilation (too stuffy)
- ☐ Items not provided by District (a:air freshener b:candles c:pesticides d:fabrics e:other)
- ☐ Animals (a:small b:medium c:large d:aquariums e:other)
- ☐ Overall, high degree of clutter
- ☐ Moisture (a:windows b:pipes c:ceiling d:walls e:flooding)
- ☐ Mold Observed (a:papers b:sinks c:flooring d:ceilings e:interior walls f:exterior walls g:windows)
- ☐ Mold Size (a:<10ft$^2$ b:10-100ft$^2$ c:>100ft$^2$)
- ☐ Overall, unsatisfactory indoor air quality

| | OUTDOOR MEASUREMENTS | | | |
|---|---|---|---|---|
| | TEMPERATURE (°F) | RELATIVE HUMIDITY (%) | CARBON MONOXIDE (ppm) | CARBON DIOXIDE (ppm) |
| START OF DAY | | | | |
| END OF DAY | | | | |

| INDOOR MEASUREMENTS | | | | | | | |
|---|---|---|---|---|---|---|---|
| TEMPERATURE (°F) | | RELATIVE HUMIDITY (%) | | CARBON MONOXIDE (ppm) | | CARBON DIOXIDE (ppm) | |
| Return | Supply | Return | Supply | Return | Supply | Return | Supply |
| | | | | | | | |

Other observations about the conditions in the classroom: _____