

### **Quaker Testimonies We Considered**







LEHIGH VALLEY MEETING · R.D. BETHLEHEM, PA.

1982 PAINTING BUILT 1961 —PAROUTE 512—

**JOHN SATTERTHWAITE, 1982** 

# **Employing Quaker Process**









WE SEEK UNITY IN OUR FINAL OUTCOME

WE ACKNOWLEDGE A DIVERSE RANGE OF OPINIONS WE LISTEN TO FRIENDS

WE LOOK TO THE AVAILABLE RESOURCES



WE ASK FRIENDS TO HELP AS THEY ARE LED IN FINANCING THE WORK

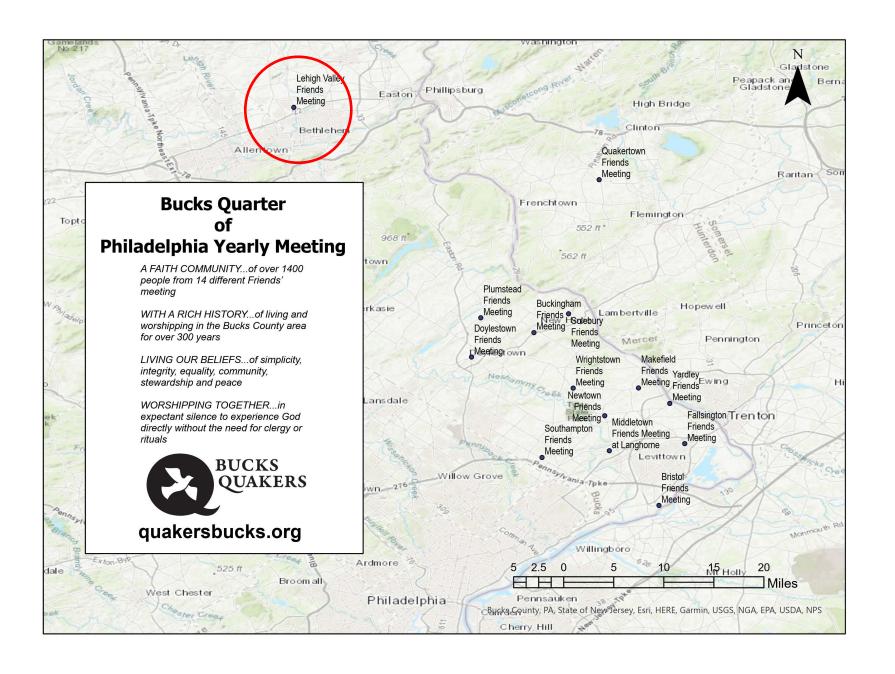


WE USE BEST STANDARD BUSINESS PROCESSES TO ENSURE TRANSPARENCY



WE WAIT...

# Who and Where We Are



### Pennsylvania's Lehigh Valley: The Region



Nearly a million people in the four-county, bi-state area



Only Friends meeting



A magnet for undergraduate and graduate study (three universities, several colleges)



Distribution center hub for the Northeast United States

# Lehigh Valley Friends Meeting



1948

Founded from a union of Bethlehem and Easton Friends



1961

Construction completed of Midcentury-style meetinghouse



1997

Fellowship hall and kitchen addition

Bought a 2.5 acres of the Pharo farm in suburban Bethlehem

1960

Gathering room addition

1971

Revitalization and greening project completed

2023-2024

### Our Quaker Community



2023 directory lists **88 members** and over **150 attenders** 



First Day Worship attendance is 35-50 Friends in person, over 20 Friends by Zoom



Meetings for Business and most committee meetings held virtually



In-person First Day School with 3 to 5 Young Friends (children leave 20 minutes after 10 am start of Meeting for Worship); monthly potlucks and "Frugal Feasts" supporting local food pantry



Nominating Committee successfully fills committee slots

# The Building's Particulars

1960 construction:
Midcentury design, 32' x 32'
meeting room with skylight,
oil-fired heat and exhaust fan
for ventilation

1967 addition: gathering and cloakroom spaces for Friends

#### 1997 addition:

- fellowship hall built partially below grade for passive cooling
- ADA compliance with elevator, ramps, stair and restroom rails, widened doors
- Gas boiler conversion
- meeting room air conditioned

# Using Our Building



WEEKLY FIRST DAY MEETING FOR WORSHIP AT 10:00 AM



MONTHLY POTLUCKS AND FUNDRAISERS



MEMORIAL MEETINGS FOR WORSHIP (APPROXIMATELY TWO TO THREE ANNUALLY)



BUDDHIST ZENDO PRACTICE TUESDAYS – RENTAL INCOME

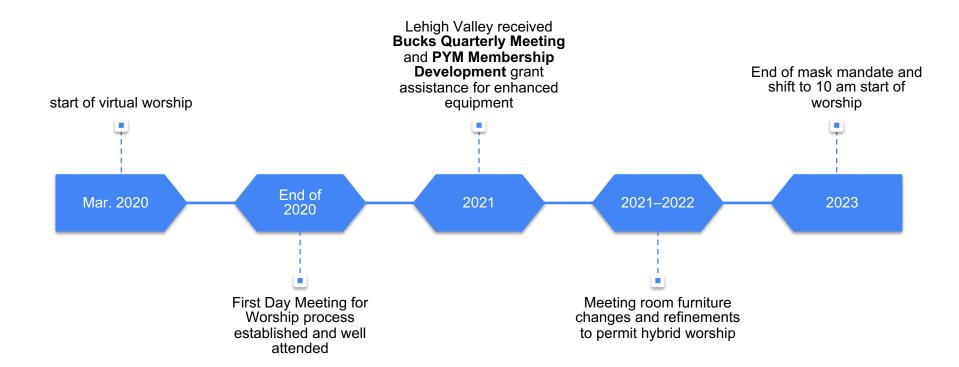


WILDLIFE SANCTUARY
WITH NATIVE
PLANTINGS



PERMEABLE PARKING LOT - MINIMAL PAVING

# Responding to the Pandemic



# A Story of Ventilation

Meeting members began discussing ventilation and air exchange issues in 2021

How safe is "safe" with children and vulnerable members of our community?

In-person worship returns with open windows, the original wholebuilding exhaust fan, and air conditioning

Some Friends returned appropriately dressed for the seasons (outerwear in winter, light clothing in summer)

Distribution center tractor-trailer noise on Route 512/Bath Pike intruded into silent worship

### Water: Resource and Risk



Water – a precious natural resource – but not inside the building!



Geology of the Lehigh Valley – karst (limestone below topsoil)



Intrusion in early 2010s led to mold bloom in lower level



Sinkhole in 2018 required excavation, plugging, remediation



Additional intrusions in 2022 and 2023 required installation of sump



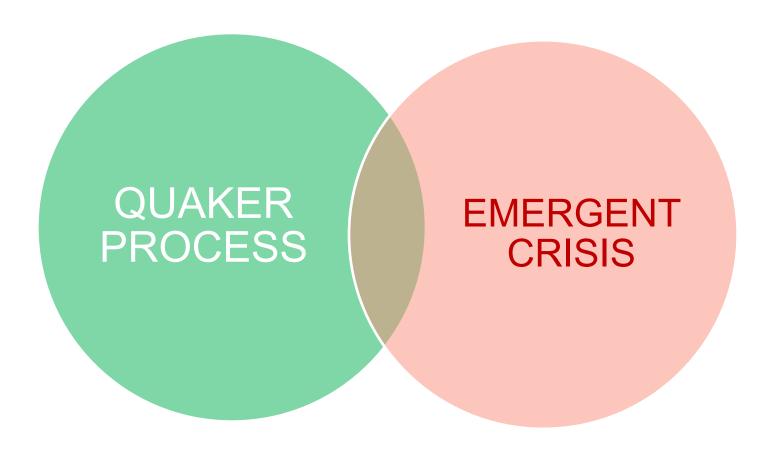
Remediation in 2023 included new lower level flooring, regrading, demolition, remediation and reconstruction of kitchen cabinetry



Climate control
maintained through
new HVAC and
dehumidifiers in lower
level of building to
keep relative humidity
low

# BLACK MOLD BLOOM

### What happens when...



# SOMETHING! calmly

### Twin Crises in 2023

The failure of existing meeting room two-ton air conditioning unit (installed in 1997) in early 2023

Friends discovered **mold blooms in mid 2023** - our second occurrence in the below-grade addition since 2011 - in the elevator and kitchen areas

Most in-person activities curtailed for investigation, significant regrading, reflooring, and replacement of kitchen components

Mold remediation completed in October 2023 in time to host the scheduled PYM Young Adult Friends fall retreat

# WHAT ARE WELLING?

### Seeking Air Quality Solutions



2020 original estimate to condition entire building about \$100,000; Friends deferred a decision to move forward at that time



With the twin crises and the resultant mold danger to the meetinghouse, the need to respond more quickly became apparent



Lehigh Valley Friends formed the Ad Hoc Air Quality Committee comprised of members of Worship and Ministry, Care of Members, Building, and Grounds



Ad Hoc led Friends through the discernment process to select the scope of the project and a vendor to complete the heating-ventilation-air conditioning work

# The Meeting's (Accelerated) Remediation Goals



Stop the water infiltration!



Control building humidity



Condition and exchange air



Constructing a berm



**Spreading area** 

Downspout outflow

# **Controlling Humidity**

Below-grade buildings are damp (residential basements!)



HVAC as global dehumidifying method



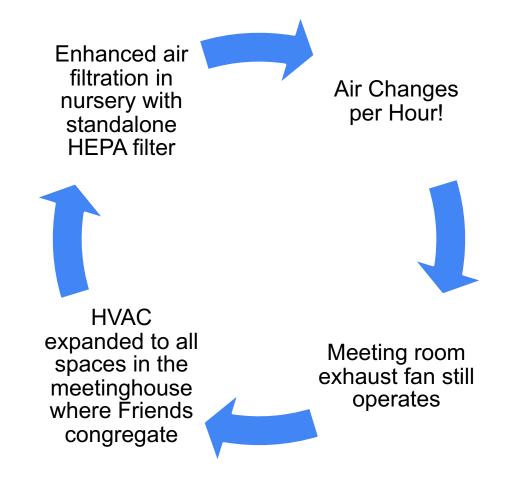
Spot dehumidifiers to address spaces at greatest risk

#### Adding a sump pump in utility room



**Dehumidifying air** 

# Condition and Exchange Air



### Heat Pump HVAC

#### Three (of five) exterior units

Meeting room unit



**Conference room unit** 

handler

**Smart thermostat** 

### Meeting Room Windows

Meeting room windows (single-pane casement and sidelights) were installed in 1961

Meeting determined in next capital phase that replacement was necessary

New dual-pane windows enhance energy savings by raising insulation level

New windows will significantly reduce tractor-trailer and traffic noise in meeting room

#### **Casement window hardware**

**Existing Windows** 



Windows in four corners of square meeting room



**Deteriorating frames** 

# To Build a Smart Meetinghouse



2013: discernment for need for wifi/internet access and installation with mesh networking solution



2019-2020: smart thermostats (Google Nest) to control gas boiler by schedule and remotely by Building Committee



2023-2024: enhanced smart thermostats to control buildingwide HVAC system



2024: camera to monitor weather conditions in parking lot

### Greening while Revitalizing

Friends chose a heat pump-based solution with exterior condensers and interior heads for the meeting room, nursery, conference room, office to allow more efficient heating in winter as well as maintaining air conditioning for warmer months

Heat pump solution may allow Lehigh Valley to gradually reduce the use of the existing gas boiler (though the boiler needs to run occasionally to ensure safe operation)

Dehumidifiers keep moisture in air low to prevent recurrence of mold bloom

### **Project Components**

TOTAL	\$223,082
Permits and contingency	\$5,865
Meetinghouse window replacement	\$44,660
Professional services	\$27,304
Mold remediation	\$12,948
Heating Ventilation and Air Conditioning (HVAC)	\$132,305

NOTE: Labor contributed to regrade grounds

### Green Revitalization – What We Know We Save

Lower natural gas usage (Lehigh Valley has taken action to preserve Pennsylvania water quality and to stop or limit fracking)

Selection of electricity supplier promising wind and solar generation

Ready for solar panels to generate some of our own electricity (subsequent project)

New windows will provide quieter worship/event gatherings because of lessened traffic noise

### Green Revitalization – What We Don't Know

Annualized cost of energy: how do we compare natural gas therms and kilowatts used in a 12-month post-pandemic world with similar bills from 2019?

How will we make our building more available to others as part of Quaker outreach?

The money question: how to approach funding sources for planned or incomplete project phases? Are grants available?

### Why Green Revitalizing Matters to Friends

Lehigh Valley is a strong social action meeting within PYM

Friends recognize the **fragility of our environment** because we see encroachment first-hand through farmland-to-warehouse conversions (and our meetinghouse property was originally a part of a family farm)

Friends acknowledge that **air and water quality transcend human- drawn borders** and that while our voices matter, true change begins with what we see

Lehigh Valley's green revitalization is an example to the wider community

Let our lives be in accordance with our convictions of right, each striving to carry out our principles.

Lucretia Mott

# Thank you!

