

# Adventures in Retrofitting



**Two Passive House Case Studies for New and Retrofit  
Affordable Senior Housing in Pittsburgh**  
**Laura Nettleton • Brandon Nicholson**

ADVENTURES IN RETROFITTING

# Two Passive House Retrofits

\$170/SF



Morningside Crossing

\$185/SF



Glassport Retirement Residence

THREE BUILDINGS IN ONE

# Morningside Crossing

New Wing

1897 School

1929 Addition





MORNINGSIDE  
CROSSING

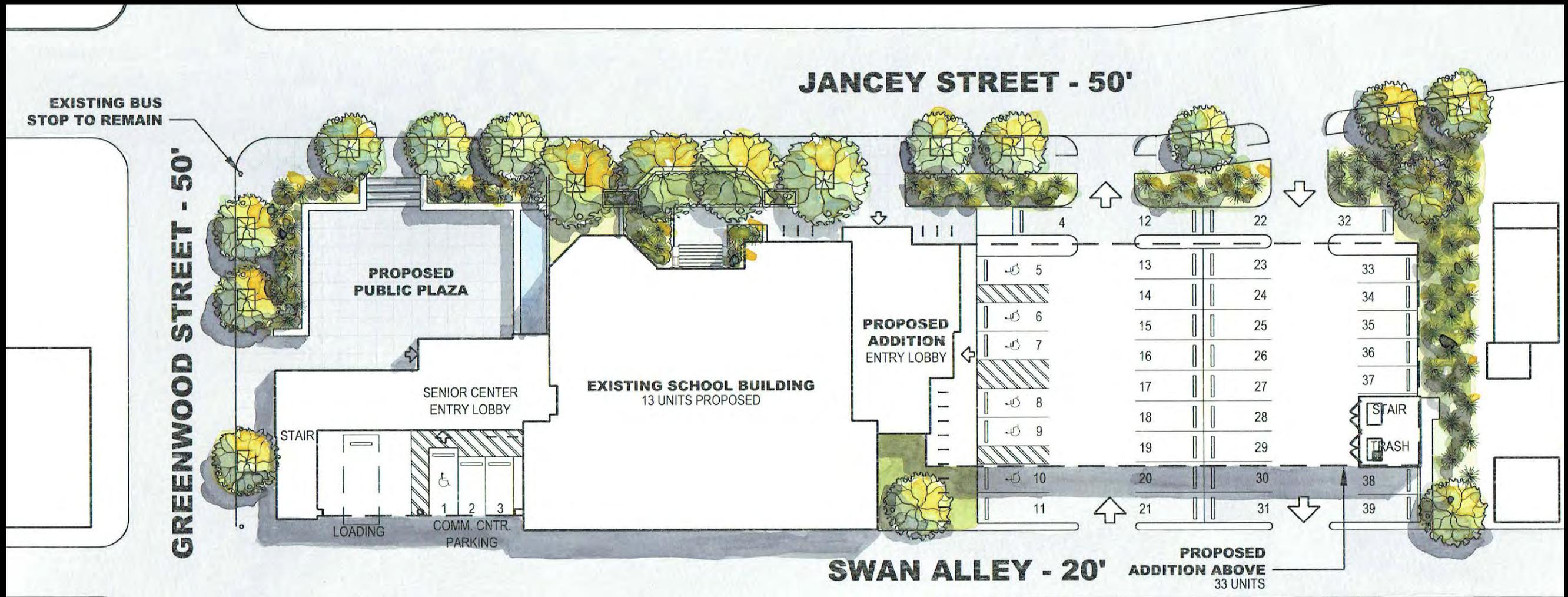
MORNINGSIDE PUBLIC SCHOOL

MORNINGSIDE  
COMMUNITY

THREE BUILDINGS IN ONE

# Morningside Crossing

New Wing







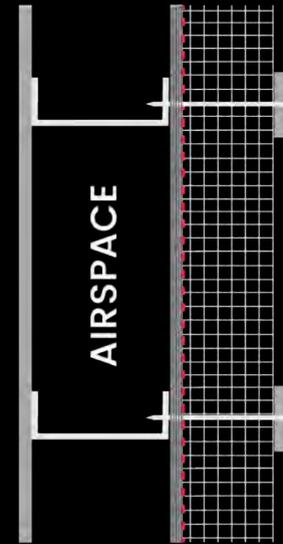
MORNINGSIDE CROSSING

# Walls

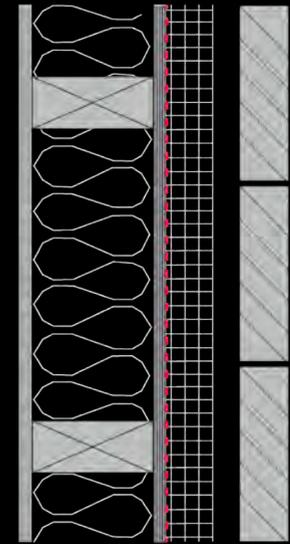
## Morningside Crossing: Three Walls



1897



1929



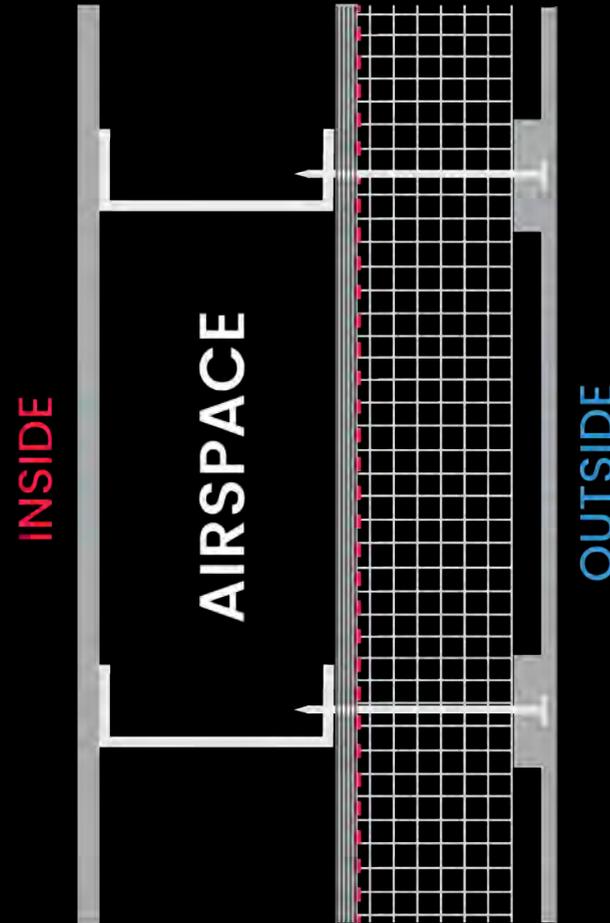
2018

# Walls

## 1897 Wall

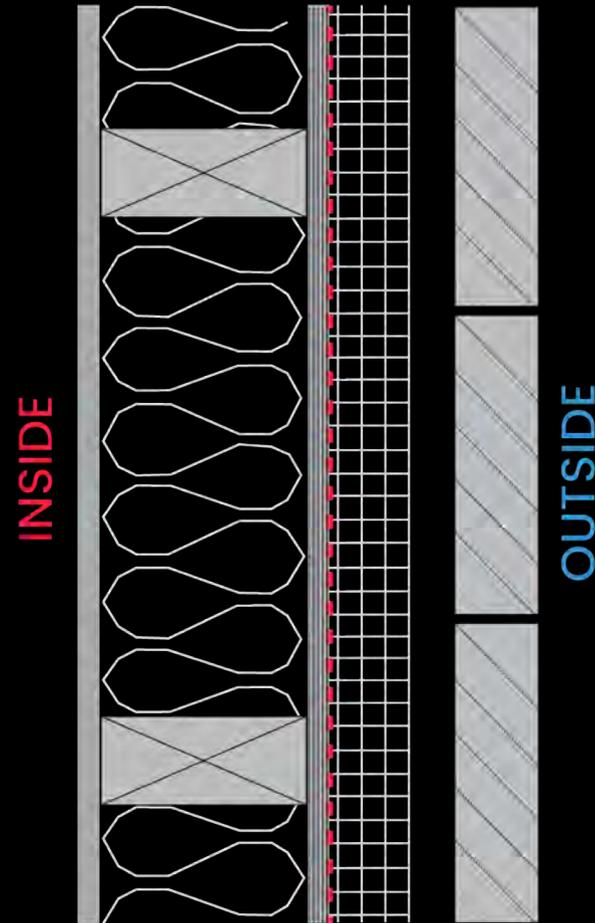


# Walls



- GYPSUM BOARD
- 
- 6" METAL STUDS
- ZIP SHEATHING & AIR BARRIER
- 
- 4" POLYISO FURRING
- EXT. CLADDING

# Walls



- GYPSUM BOARD
- 
- 2x6 STUDS
- GLASS BATT INSUL
- ZIP SHEATHING & AIR BARRIER
- 
- 2" POLYISO
- 
- EXT. CLADDING



Weenwood St  
Jancey St



Greenwood St  
Jancey St





Greenwood St  
Jancey St





Greenwood St  
Jancey St

SCHOOL  
CLOSED

WORK IN PROGRESS  
NO PARKING  
EXCEPT FOR  
EMERGENCY VEHICLES  
AND DELIVERIES

NO PARKING  
EXCEPT FOR  
EMERGENCY VEHICLES  
AND DELIVERIES