

# LOCAL OFFICE

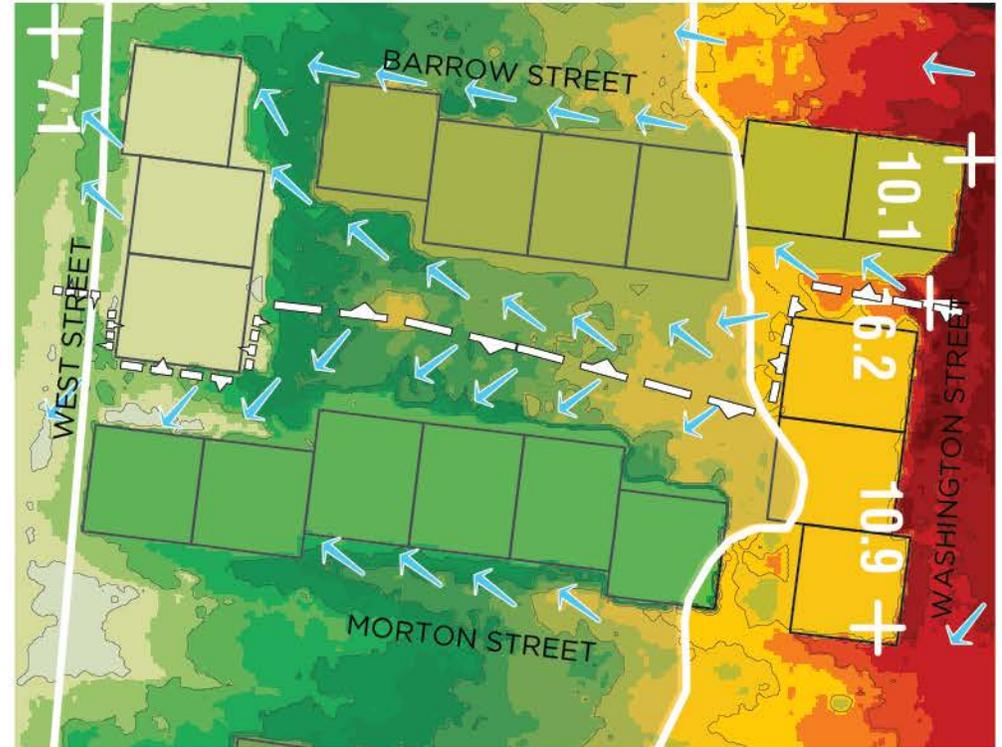
LANDSCAPE & URBAN DESIGN

# SITE 1: ANALYSIS

## HURRICANE EVACUATION ZONES



## HYDROLOGY ANALYSIS

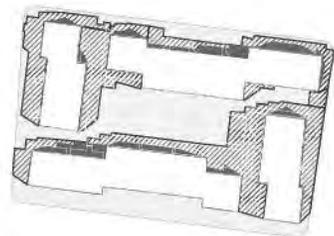


# SITE 1: ANALYSIS

## MICRO-CLIMATE SHADOW STUDY - SUMMER|WINTER

HOURLY SUMMER AND WINTER SHADOW FROM SUNRISE TO SUNSET

**SUMMER SHADOW | JUNE 21ST**

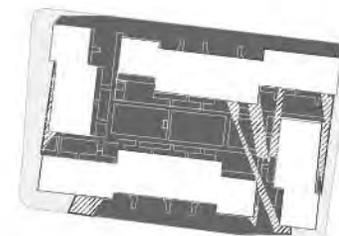
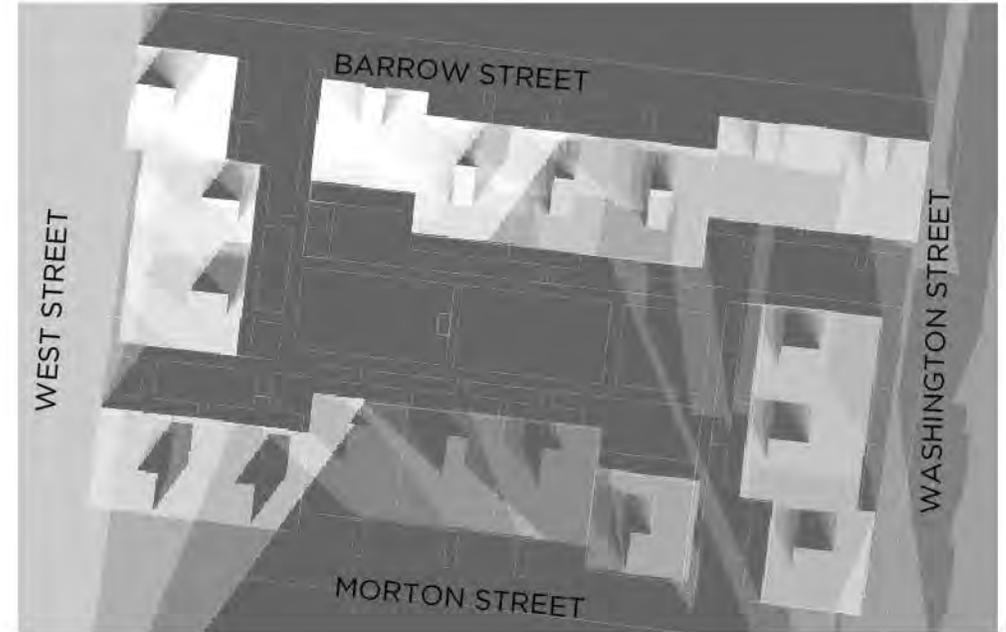


June 21st

■ Deep Shadow

▨ Moderate Shadow

**WINTER SHADOW | DEC 21ST**



Dec 21st

■ Deep Shadow

▨ Moderate Shadow

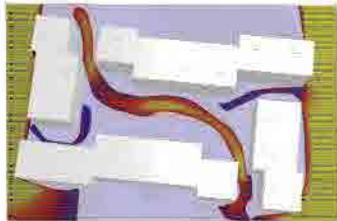


# SITE 1: ANALYSIS

## MICRO-CLIMATE WIND TUNNEL - SUMMER|WINTER



SUMMER WIND DIRECTION: SOUTH



N  
SUMMER WIND

WINTER WIND DIRECTION: NORTHWEST



N  
WINTER WIND



# SITE 1: ANALYSIS

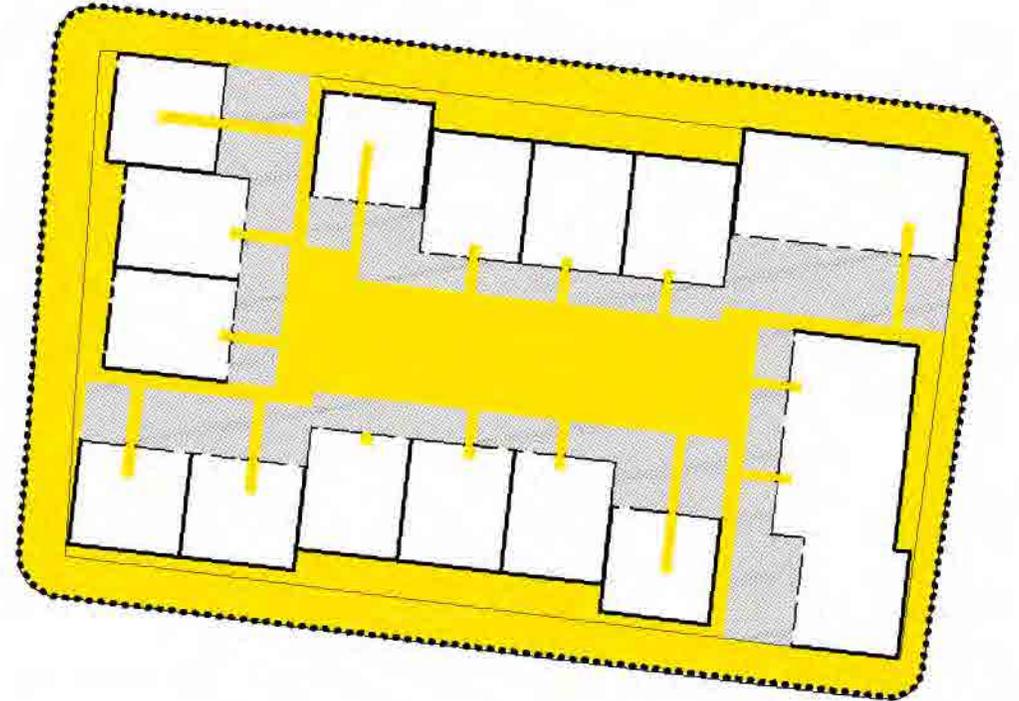
## PERMEABLE SURFACES ANALYSIS



**SITE 1** | 58,781 sf ( include sidewalk )  
**27% PERMEABLE SPACE** | 15,860 sf  
**73% IMPERMEABLE SPACE** | 42,921 sf

 **PERMEABLE SPACE**  
 **IMPERMEABLE SPACE**

## COMMON SPACE ANALYSIS



**SITE 1 OPEN SPACE** | 35,034 sf  
**26% SEMI-PRIVATE SPACE** | 9,165 sf  
**74% COMMUNAL SPACE** | 25,869 sf

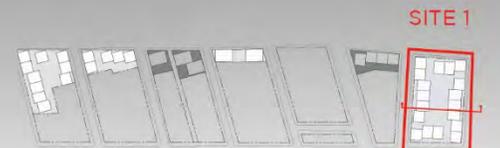
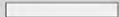
 **SEMI-PRIVATE OUTDOOR SPACE**  
 **COMMUNAL OUTDOOR SPACE**



# SITE 1: EXISTING CONDITION 1



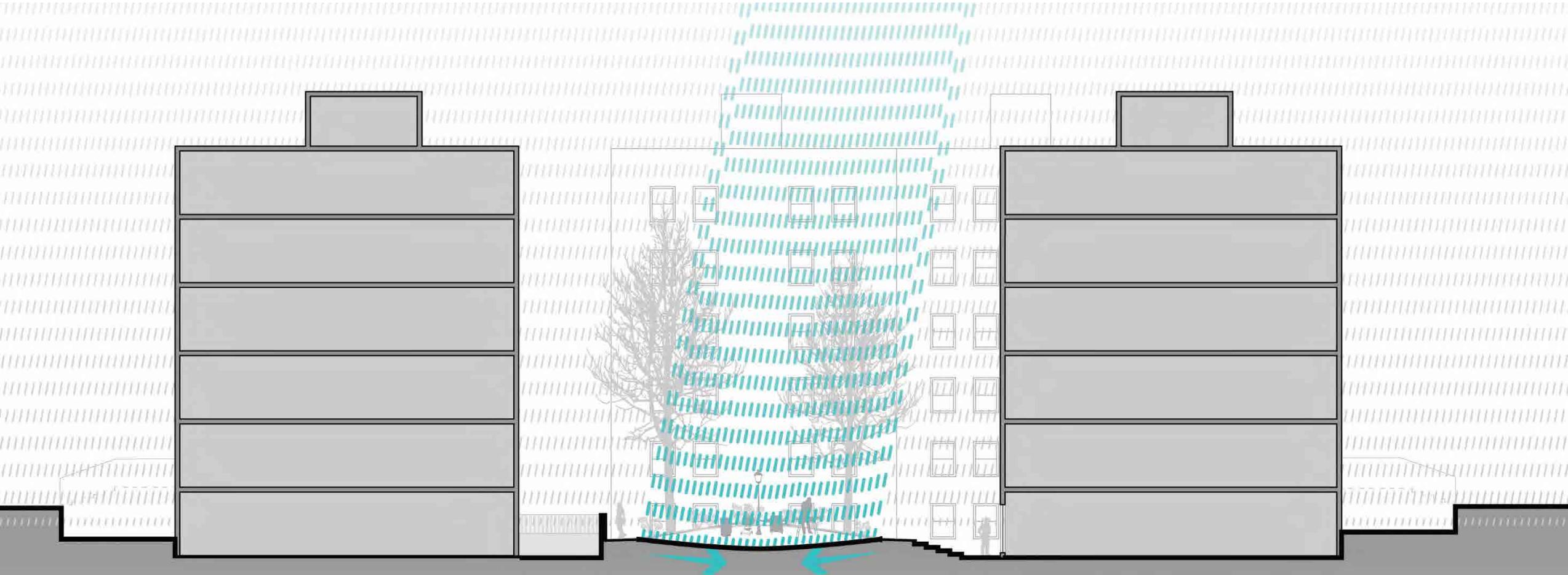
0' 10'



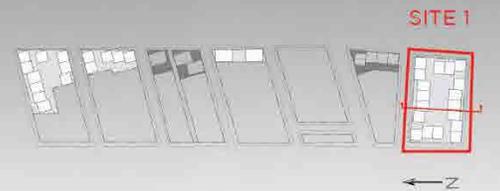
SITE 1



# SITE 1: PREVIOUSLY PRESENTED CONCEPT 1



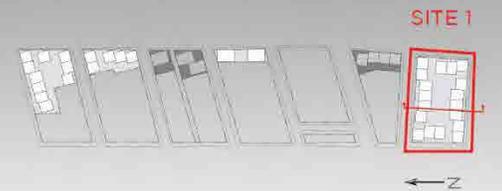
0' 10'



# SITE 1: PREVIOUSLY PRESENTED CONCEPT 2



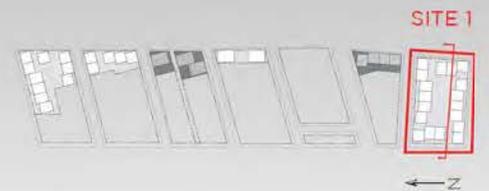
0' 10'



# SITE 1: CONCEPT SECTION



0' 10'



# SITE 1: PLAN



BARROW STREET

PRESERVE EXISTING MATURE TREES BY KEEPING GROUND ELEVATION AS-IS

WEST STREET

RAIN GARDEN, 5' LOWER THAN EXISTING

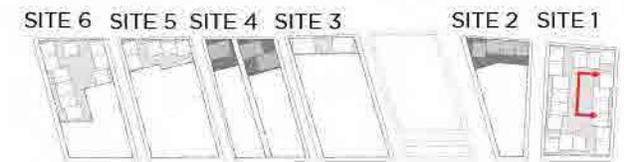
WASHINGTON STREET

ACCESSIBLE (STROLLER WHEELCHAIR FRIENDLY) PATH TO ALL PUBLIC GARDEN SPACES

MORTON STREET

IMPROVE STORMWATER CAPTURE BY LOWERING LAWN 4' FROM EXSTING

# SITE 1: COMMON AREA SECTION



# SITE 1: PERSPECTIVE



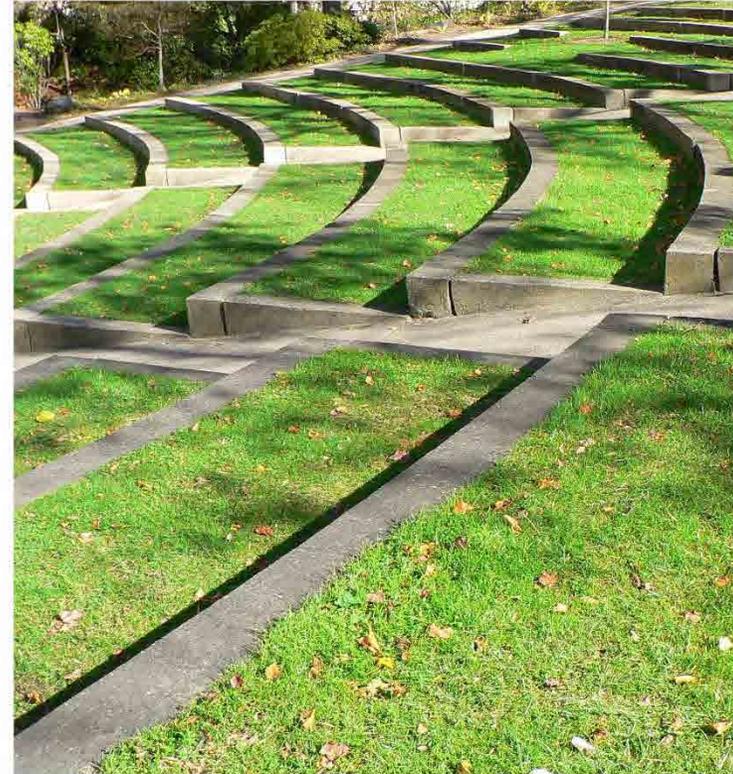
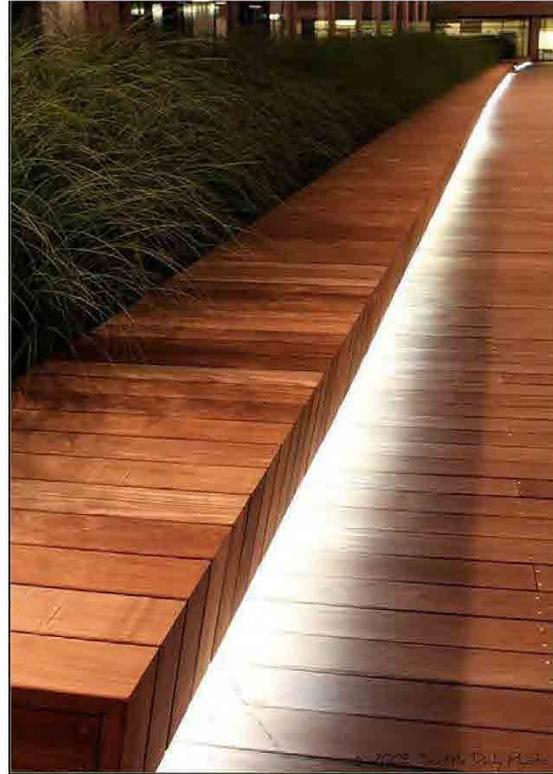
# SITE 1: BUDGET

## BUDGET SITE 1

Task	Cost	Unit	Quantity	Sub Total
Protect Existing Tree	\$1,000	EA	10	\$10,000
Tree Planting	\$2,000	EA	6	\$12,000
Garden Planting & Irrigation	\$20	SF	2500	\$50,000
Lawn Sod & Irrigation	\$10	SF	3000	\$30,000
Pervious Hardscape	\$25	SF	6000	\$150,000
Retaining Walls 2' high	\$300	LF	600	\$180,000
Stairs	\$120	SF	1000	\$120,000
Excavation, Haul, Dispose	\$200	CY	700	\$140,000
Fill and Grade	\$100	CY	0	\$0
Subgrade water storage 3' deep	\$70	SF	1000	\$70,000
<b>Subtotal</b>				\$762,000
Contractor's Mobilization, O&P	15%			\$114,300
Contingency	30%			\$228,600
<b>TOTAL</b>				<b>\$1,104,900</b>

# SITE 1: MATERIALS

## SEATING WALLS AND STEPS



### Construction considerations

- Price affected by**
- Location
  - Material cost
  - Soils
  - Height/Retainage
  - Access to building site
  - Fill material

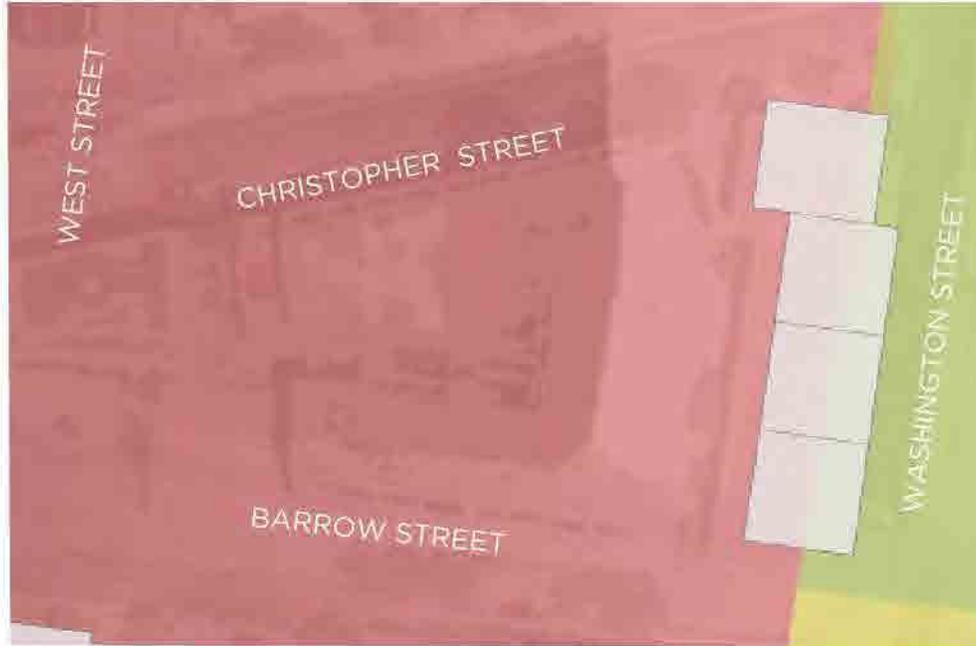
The primary cost variable is the height of the wall or stair, and the amount of earth retained behind it, as these factors increase the structural demands. Note that curved walls and steps carry a cost premium due to the complexity of construction.

### Cost Comparison

	Installation.....	O&M
Stone.....	\$\$\$	\$
Poured concrete.....	\$\$	\$
Masonry.....	\$\$	\$\$
Timber.....	\$	\$\$\$

# SITE 2: ANALYSIS

## HURRICANE EVACUATION ZONES



## HYDROLOGY ANALYSIS

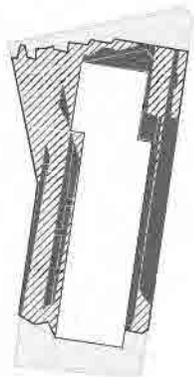


# SITE 2: ANALYSIS

## MICRO-CLIMATE SHADOW STUDY - SUMMER|WINTER

HOURLY SUMMER AND WINTER SHADOW FROM SUNRISE TO SUNSET

**SUMMER** SHADOW | JUNE 21ST

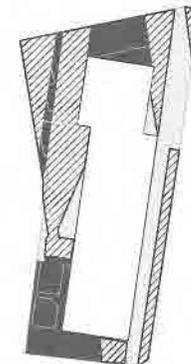
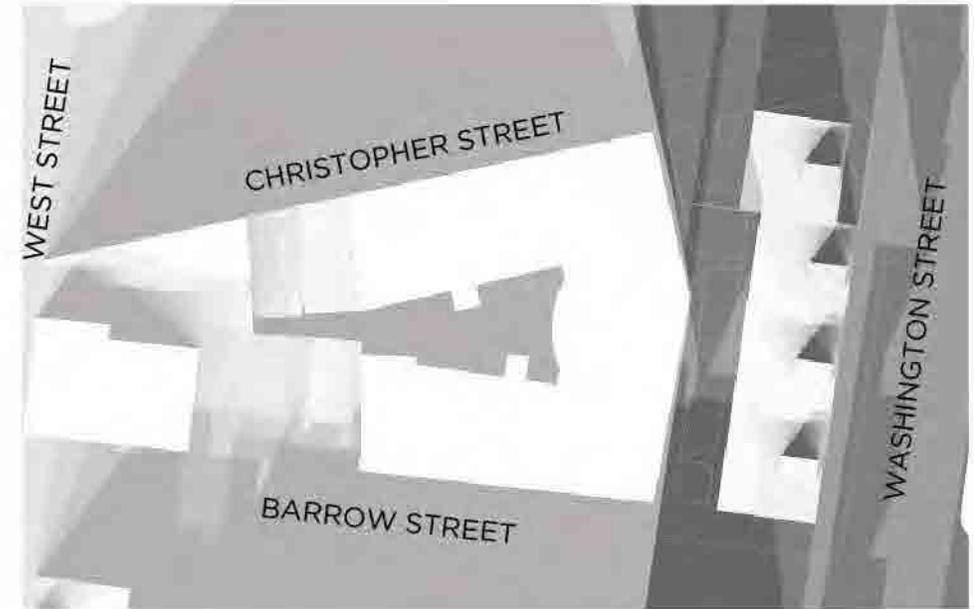


June 21st

■ Deep Shadow

▨ Moderate Shadow

**WINTER** SHADOW | DEC 21ST



Dec 21st

■ Deep Shadow

▨ Moderate Shadow



# SITE 2: ANALYSIS

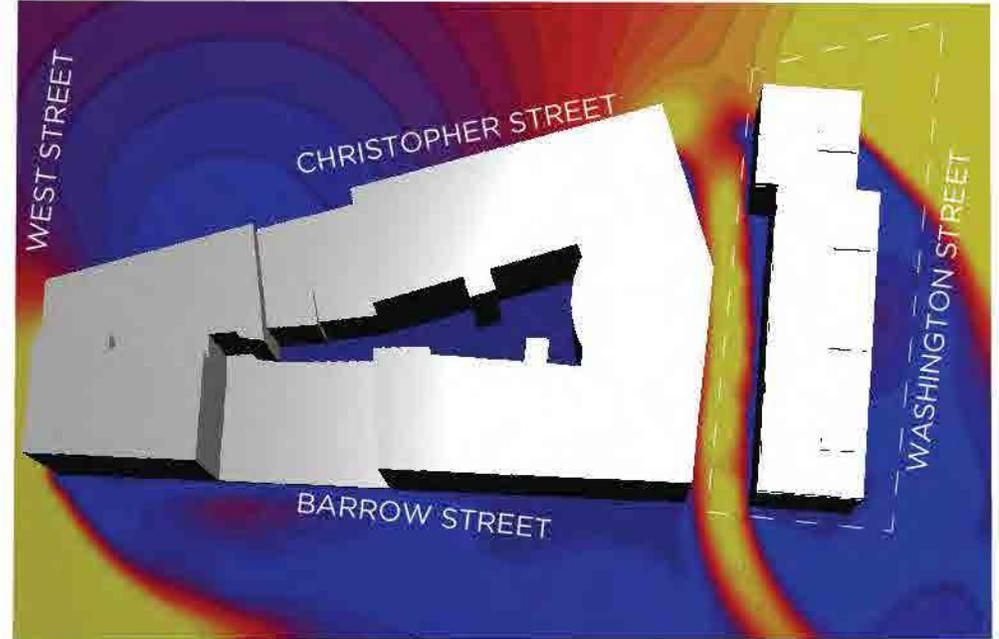
## MICRO-CLIMATE WIND TUNNEL - SUMMER|WINTER



SUMMER WIND DIRECTION: SOUTH

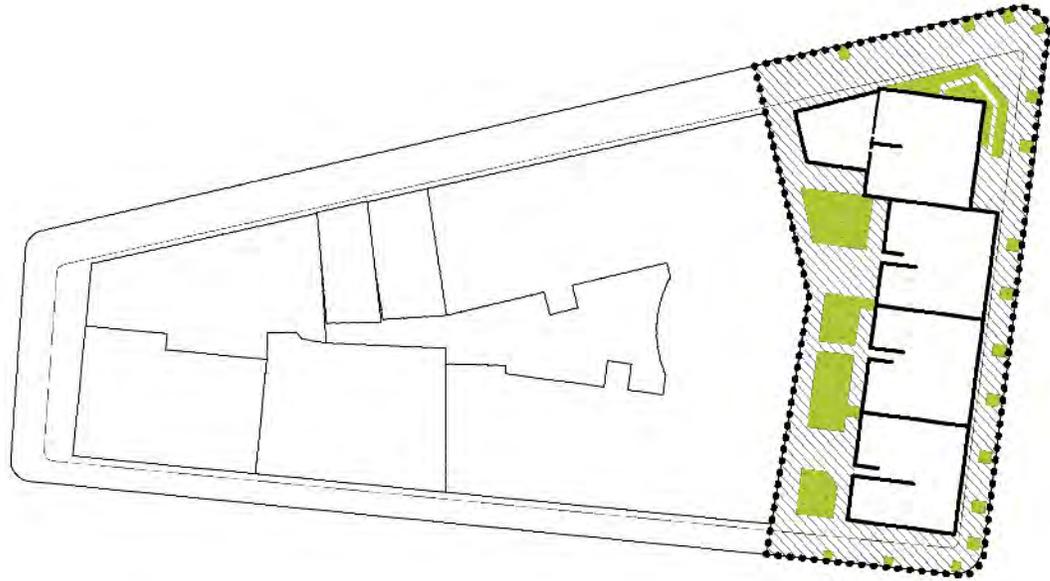


WINTER WIND DIRECTION: NORTHWEST



# SITE 2: ANALYSIS

## PERMEABLE SURFACES ANALYSIS



**SITE 2** | 12,611 sf ( include sidewalk )

**14% PERMEABLE SPACE** | 1,687 sf

**86% IMPERMEABLE SPACE** | 10,924 sf

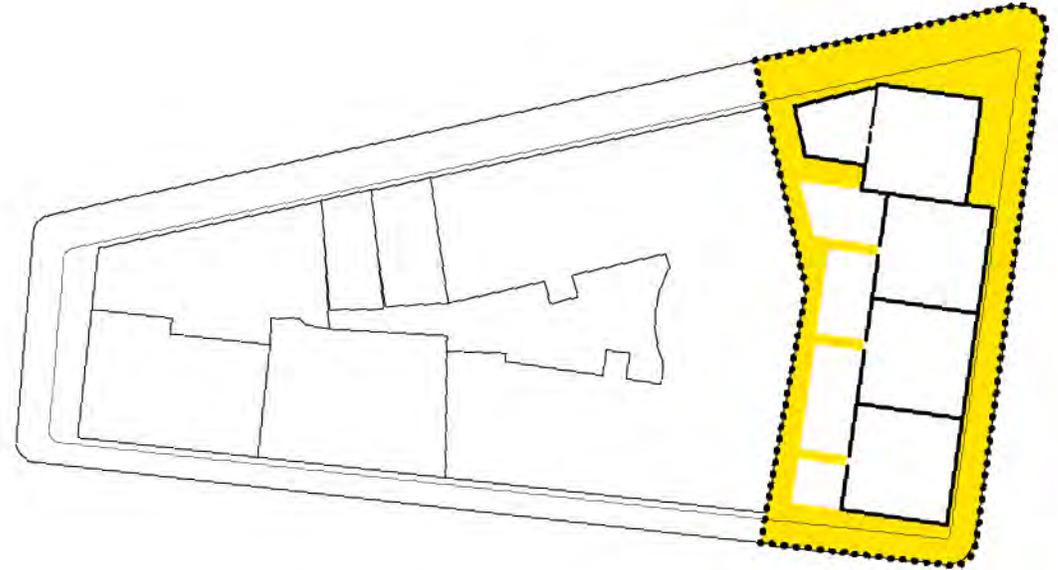


PERMEABLE SPACE



IMPERMEABLE SPACE

## COMMON SPACE ANALYSIS



**SITE 2 OPEN SPACE** | 7,722 sf

**22% SEMI-PRIVATE SPACE** | 1,682 sf

**78% COMMUNAL SPACE** | 6,040 sf



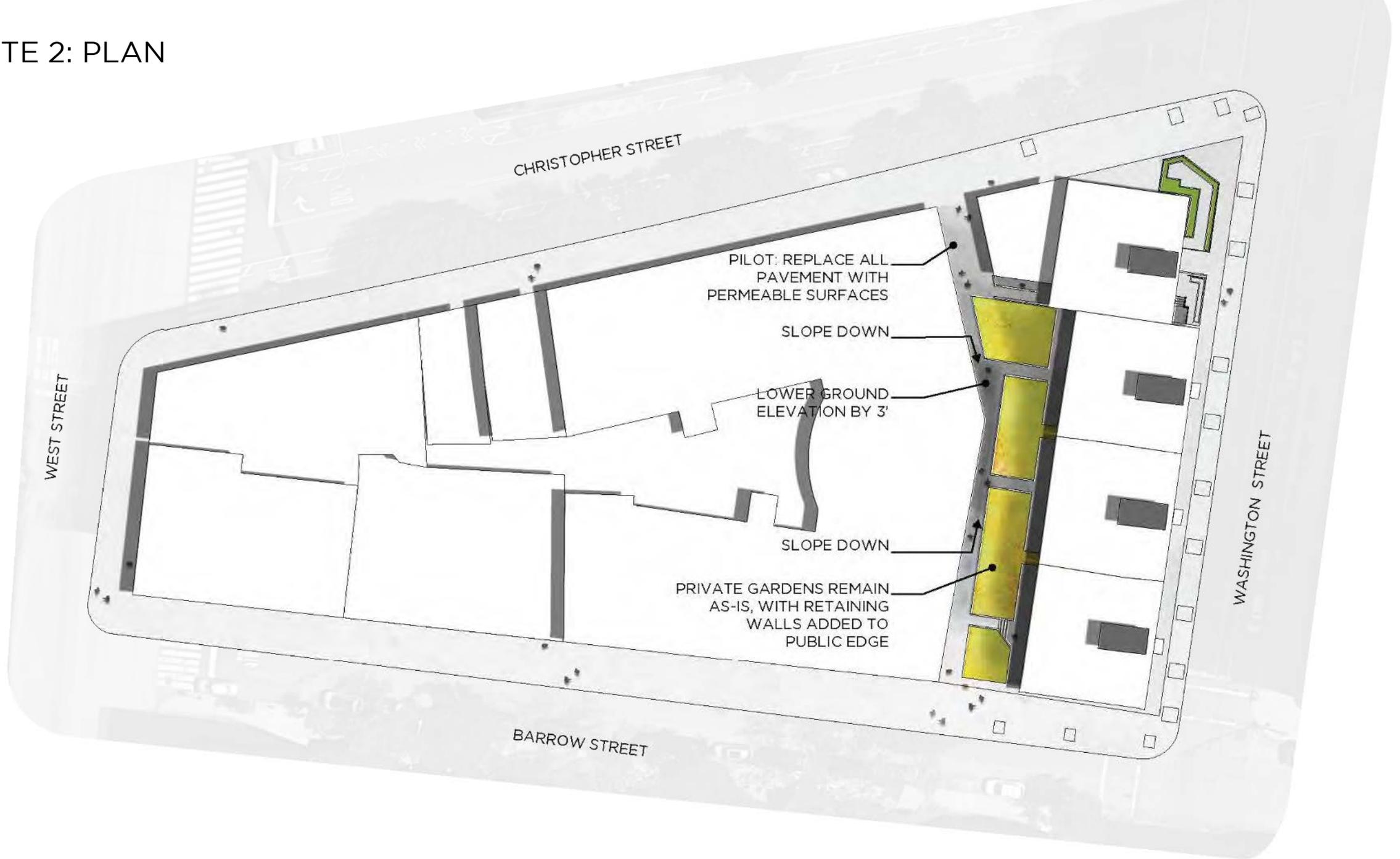
SEMI-PRIVATE OUTDOOR SPACE



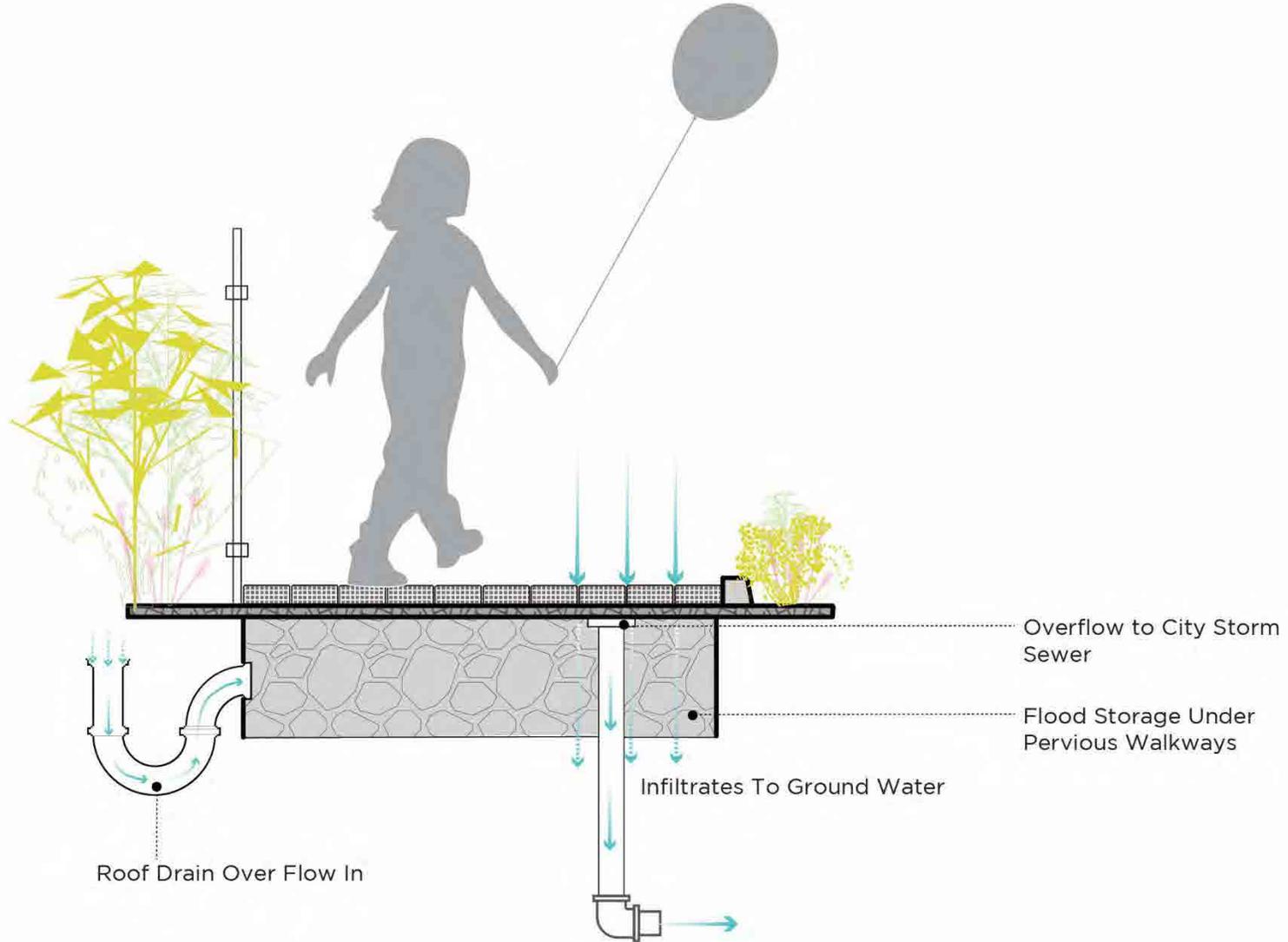
COMMUNAL OUTDOOR SPACE



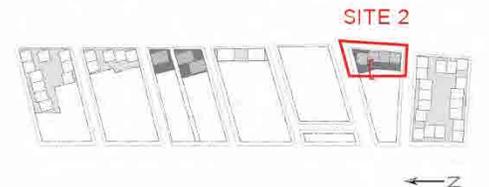
# SITE 2: PLAN



# SITE 2: PATHWAY SECTION DETAIL



0' 1'



## SITE 2: BUDGET

### BUDGET SITE 2

Task	Cost	Unit	Quantity	Sub Total
Protect Existing Tree	\$1,000	EA	0	\$0
Tree Planting	\$2,000	EA	2	\$4,000
Garden Planting & Irrigation	\$20	SF	200	\$4,000
Lawn Sod & Irrigation	\$10	SF		\$0
Pervious Hardscape	\$25	SF	1700	\$42,500
Retaining Walls 2' high	\$300	LF	200	\$60,000
Stairs	\$120	SF	0	\$0
Excavation, Haul, Dispose	\$200	CY	100	\$20,000
Fill and Grade	\$100	CY		\$0
Subgrade water storage 3' deep	\$70	SF	500	\$35,000
<b>Subtotal</b>				\$165,500
Contractor's Mobilization, O&P	15%			\$24,825
Contingency	30%			\$49,650
<b>TOTAL</b>				<b>\$239,975</b>

# SITE 2: MATERIALS

## PERMEABLE PAVEMENT



### Construction considerations

**Price affected by** Subsurface conditions  
Slopes  
Access to building site  
Staging to maintain pedestrian safety and access during construction

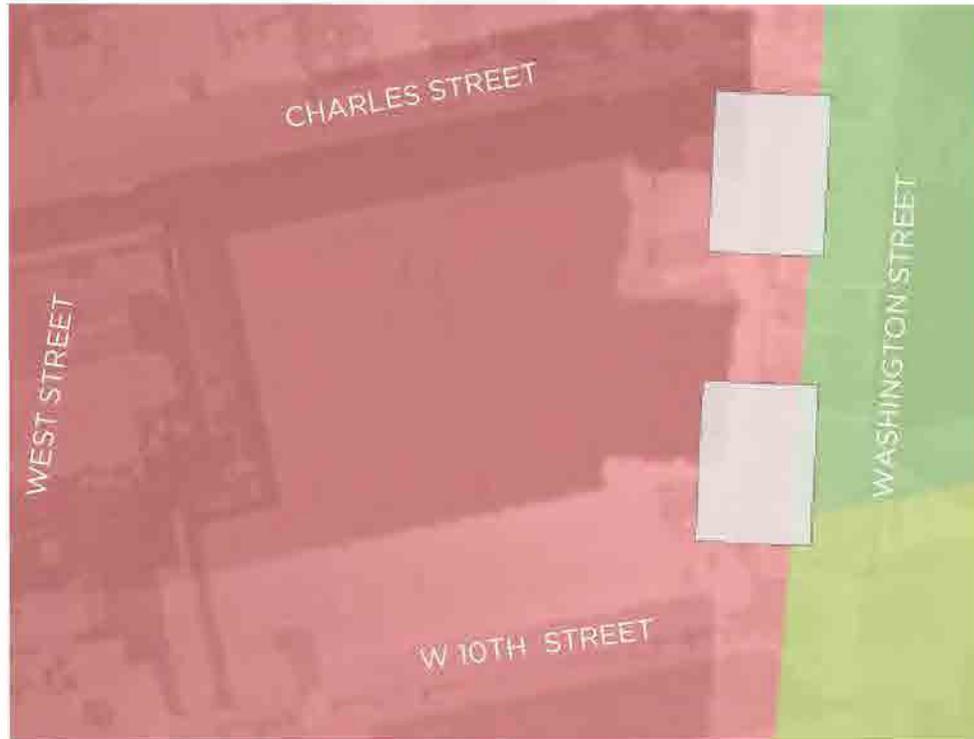
While there are many viable options for permeable pavements within the interior courtyards and gardens, choices for the sidewalks at the perimeter of the West Village Houses blocks is limited by Department of Transportation restrictions; porous concrete is the only permeable option in these areas.

### Cost Comparison

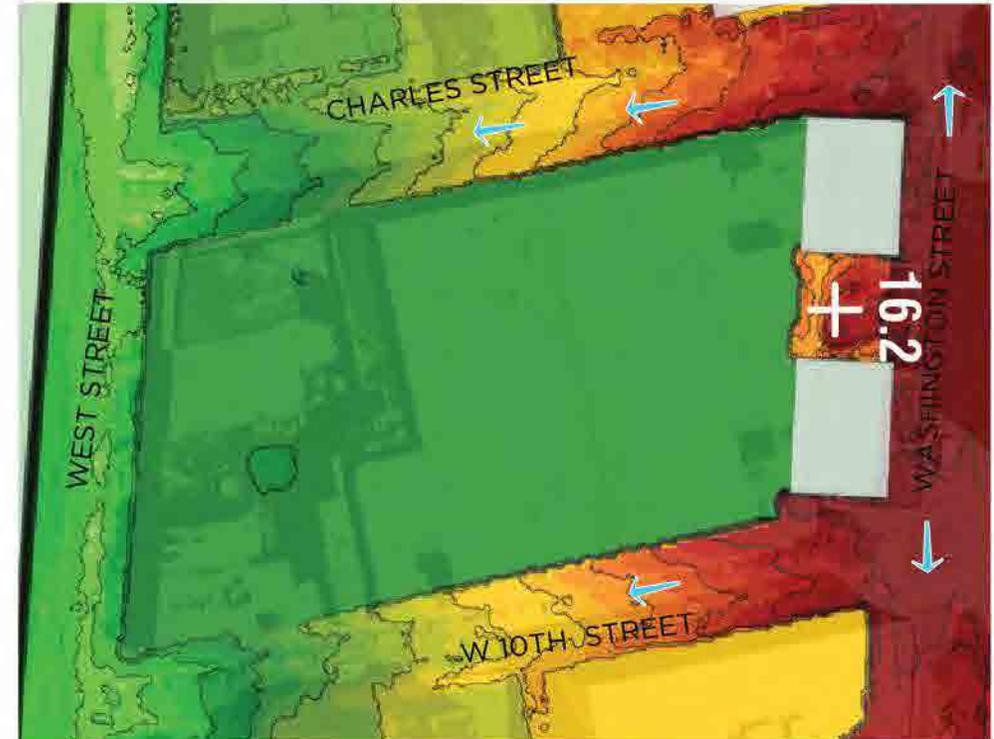
.....	Installation.....	O&M
Stone or other unit pavers.....	\$\$\$	\$
Porous concrete.....	\$\$	\$\$
Stabilized decomposed granite.....	\$	\$\$\$
Grass/Paver combination.....	\$	\$\$

# SITE 3: ANALYSIS

## HURRICANE EVACUATION ZONES



## HYDROLOGY ANALYSIS

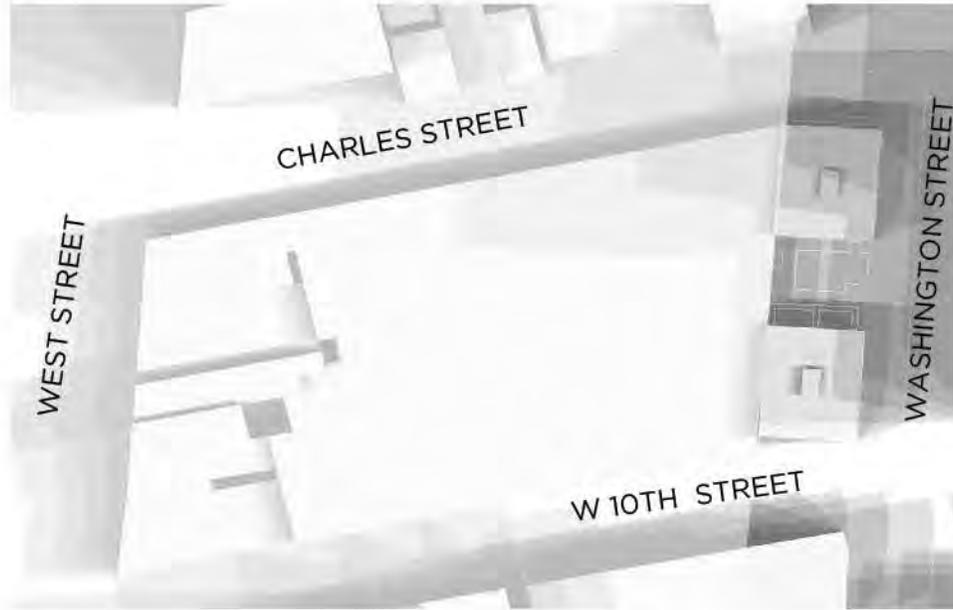


# SITE 3: ANALYSIS

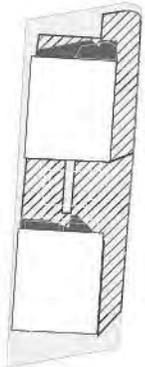
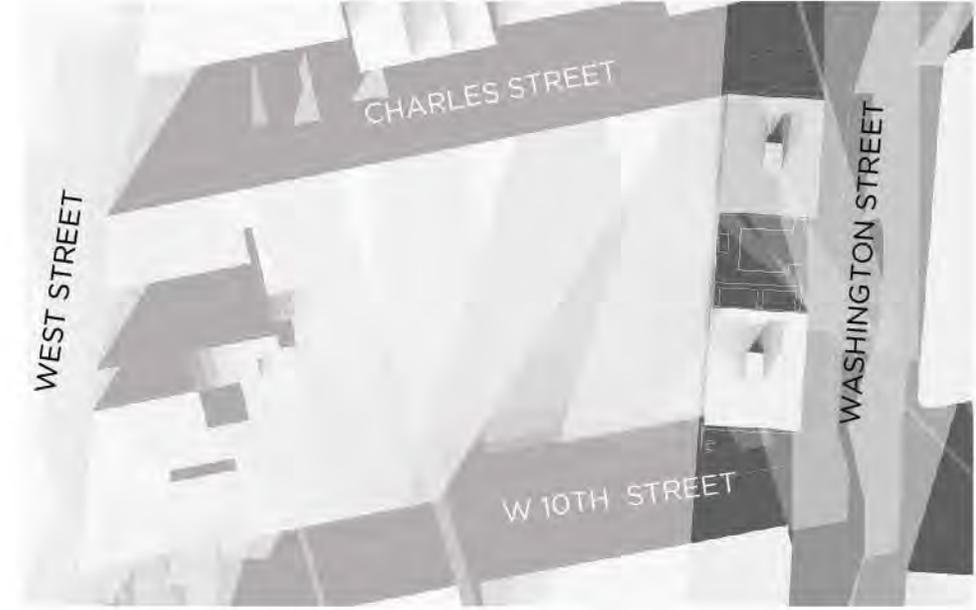
## MICRO-CLIMATE SHADOW STUDY - SUMMER|WINTER

HOURLY SUMMER AND WINTER SHADOW FROM SUNRISE TO SUNSET

**SUMMER** SHADOW | JUNE 21ST



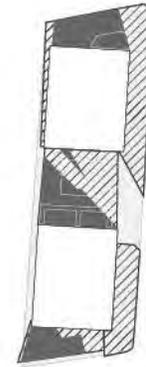
**WINTER** SHADOW | DEC 21ST



June 21st

■ Deep Shadow

▨ Moderate Shadow



Dec 21st

■ Deep Shadow

▨ Moderate Shadow

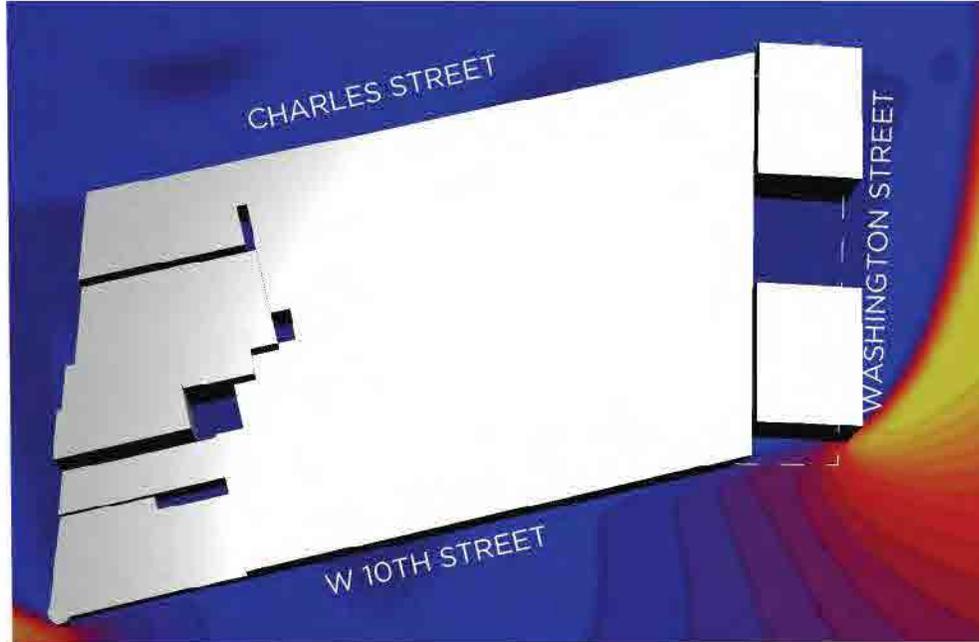


# SITE 3: ANALYSIS

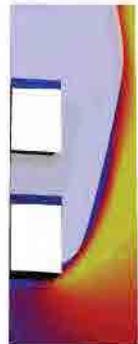
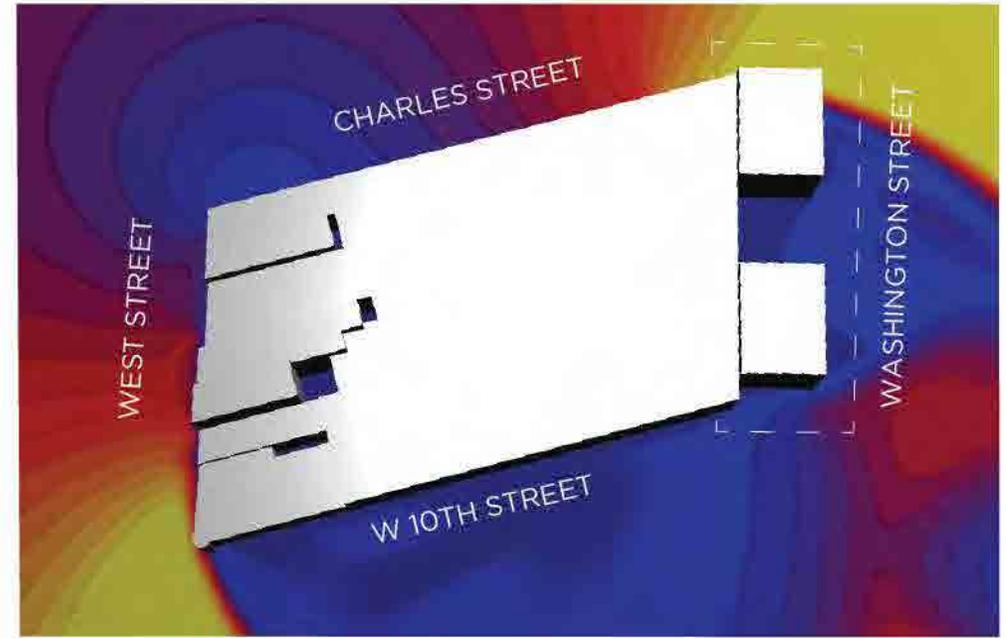
## MICRO-CLIMATE WIND TUNNEL - SUMMER|WINTER



SUMMER WIND DIRECTION: SOUTH

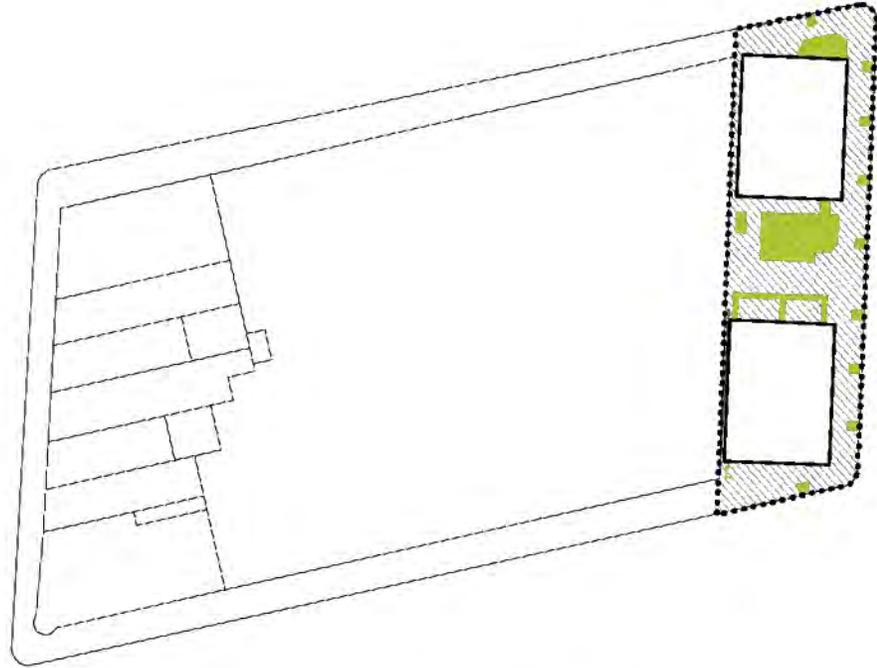


WINTER WIND DIRECTION: NORTHWEST



# SITE 3: ANALYSIS

## PERMEABLE SURFACES ANALYSIS



**SITE 3** | 9,891 sf ( include sidewalk )

**10% PERMEABLE SPACE** | 1,020 sf

**90% IMPERMEABLE SPACE** | 8,871 sf

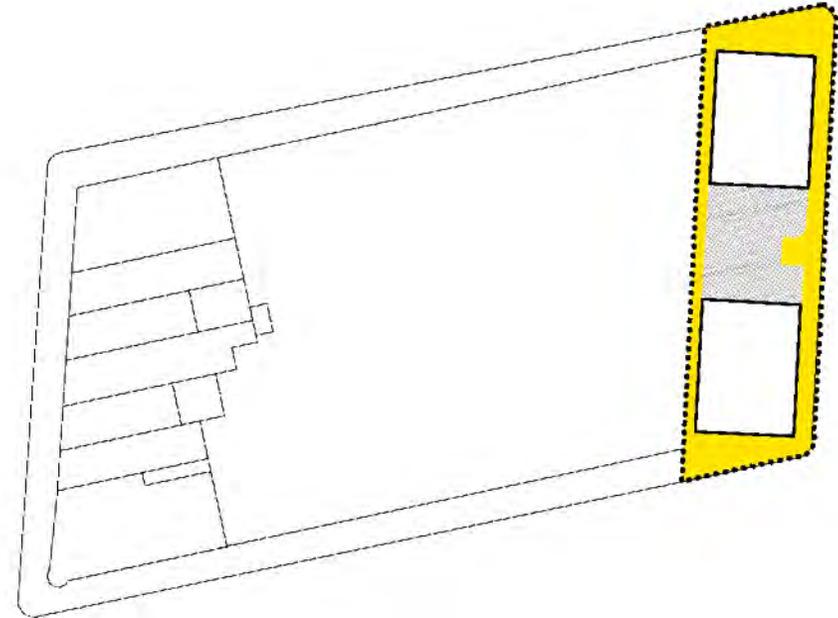


PERMEABLE SPACE



IMPERMEABLE SPACE

## COMMON SPACE ANALYSIS



**SITE 3 OPEN SPACE** | 5,546 sf

**34% SEMI-PRIVATE SPACE** | 1,861 sf

**66% COMMUNAL SPACE** | 3,685 sf



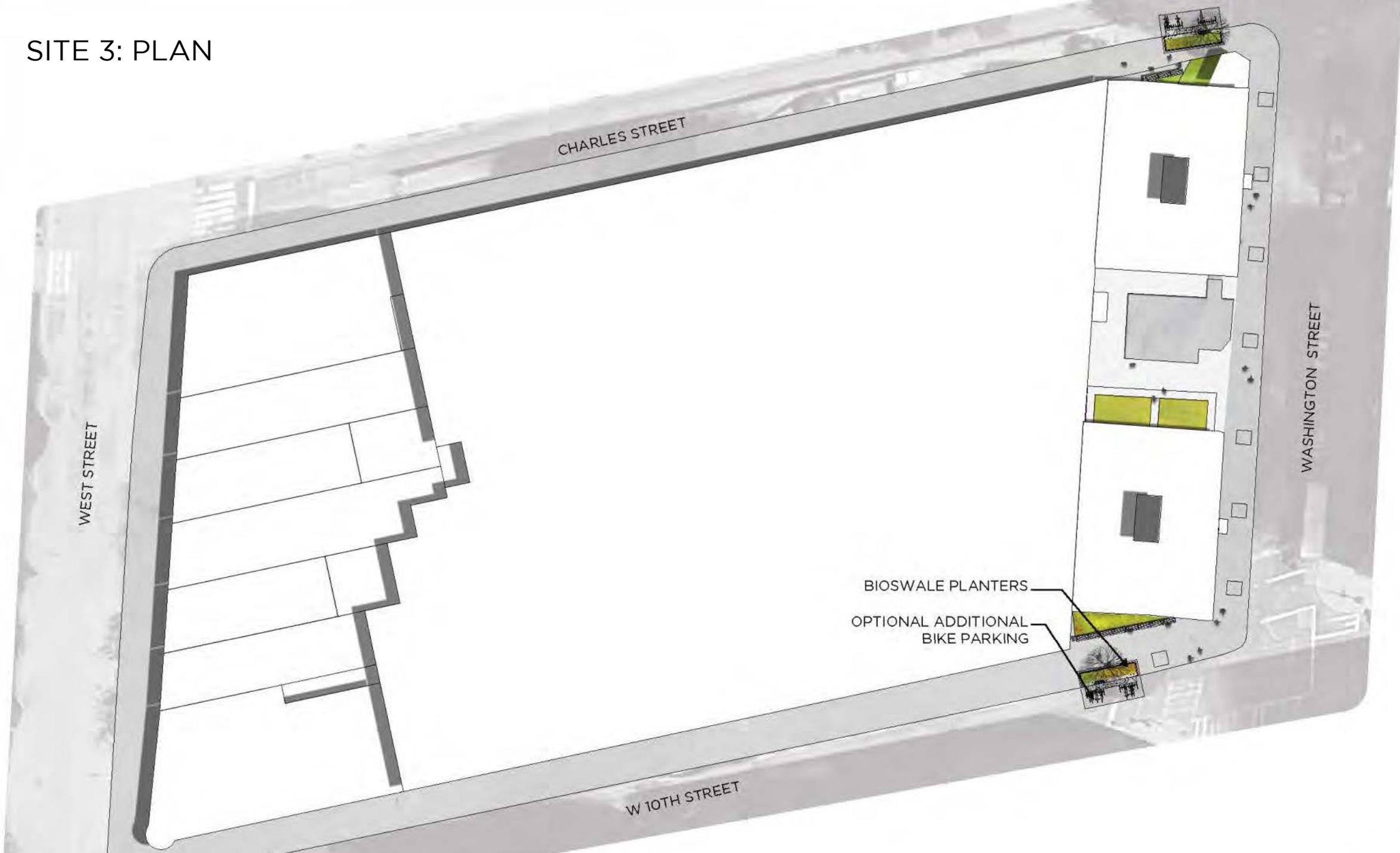
SEMI-PRIVATE OUTDOOR SPACE



COMMUNAL OUTDOOR SPACE



# SITE 3: PLAN



WEST STREET

CHARLES STREET

W 10TH STREET

WASHINGTON STREET

BIOSWALE PLANTERS  
OPTIONAL ADDITIONAL  
BIKE PARKING

# SITE 3: OPTION 1 SECTION DETAIL

Residential Building



0' 1'



# SITE 3: OPTION 1 PLAN DETAIL

*Residential Building*

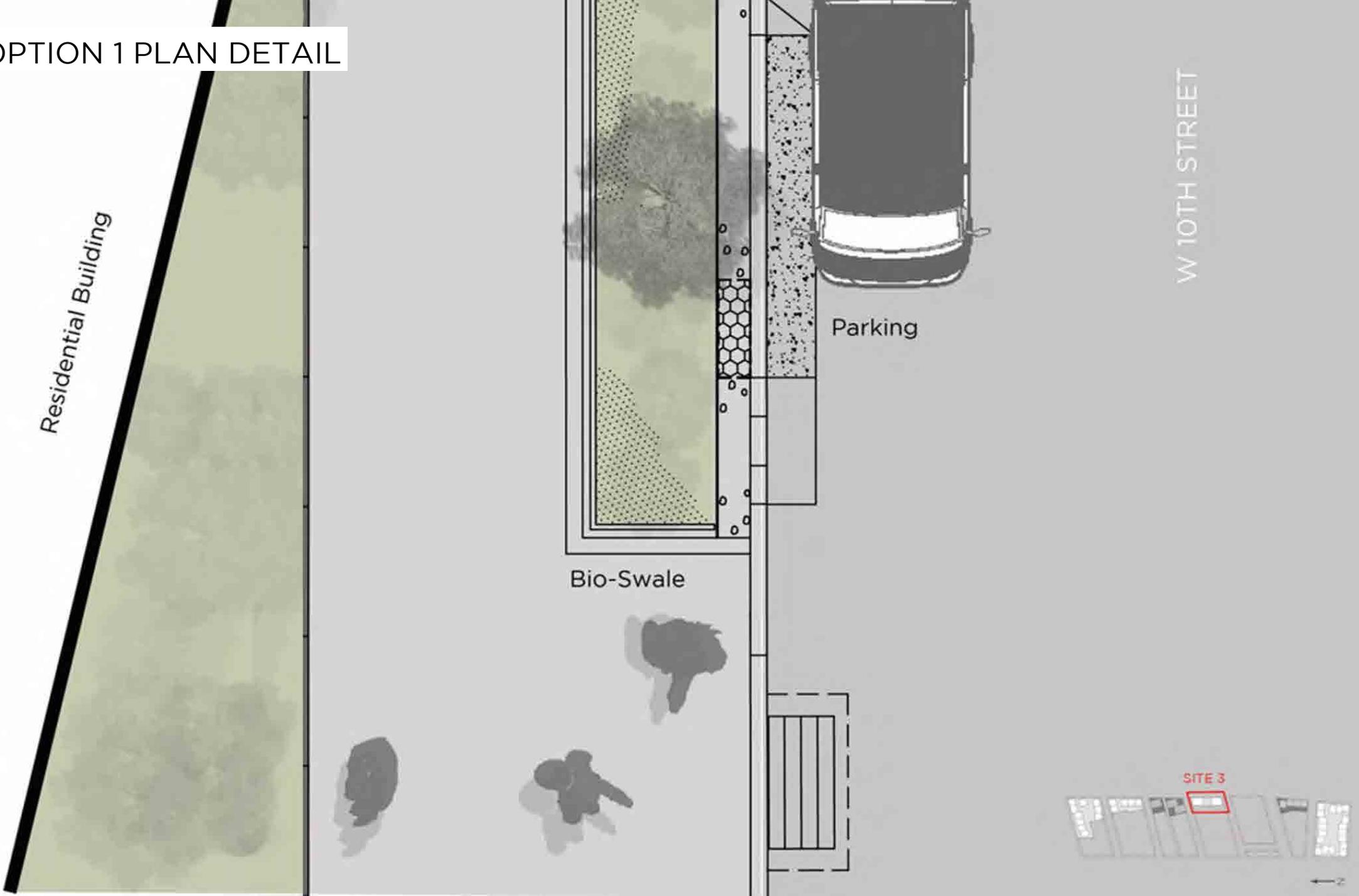
0' 1'

Bio-Swale

Parking

W 10TH STREET

SITE 3



# SITE 3: OPTION 2 SECTION DETAIL

Residential Building



Slope to drain

0' 1'



# SITE 3: OPTION 2 PLAN DETAIL

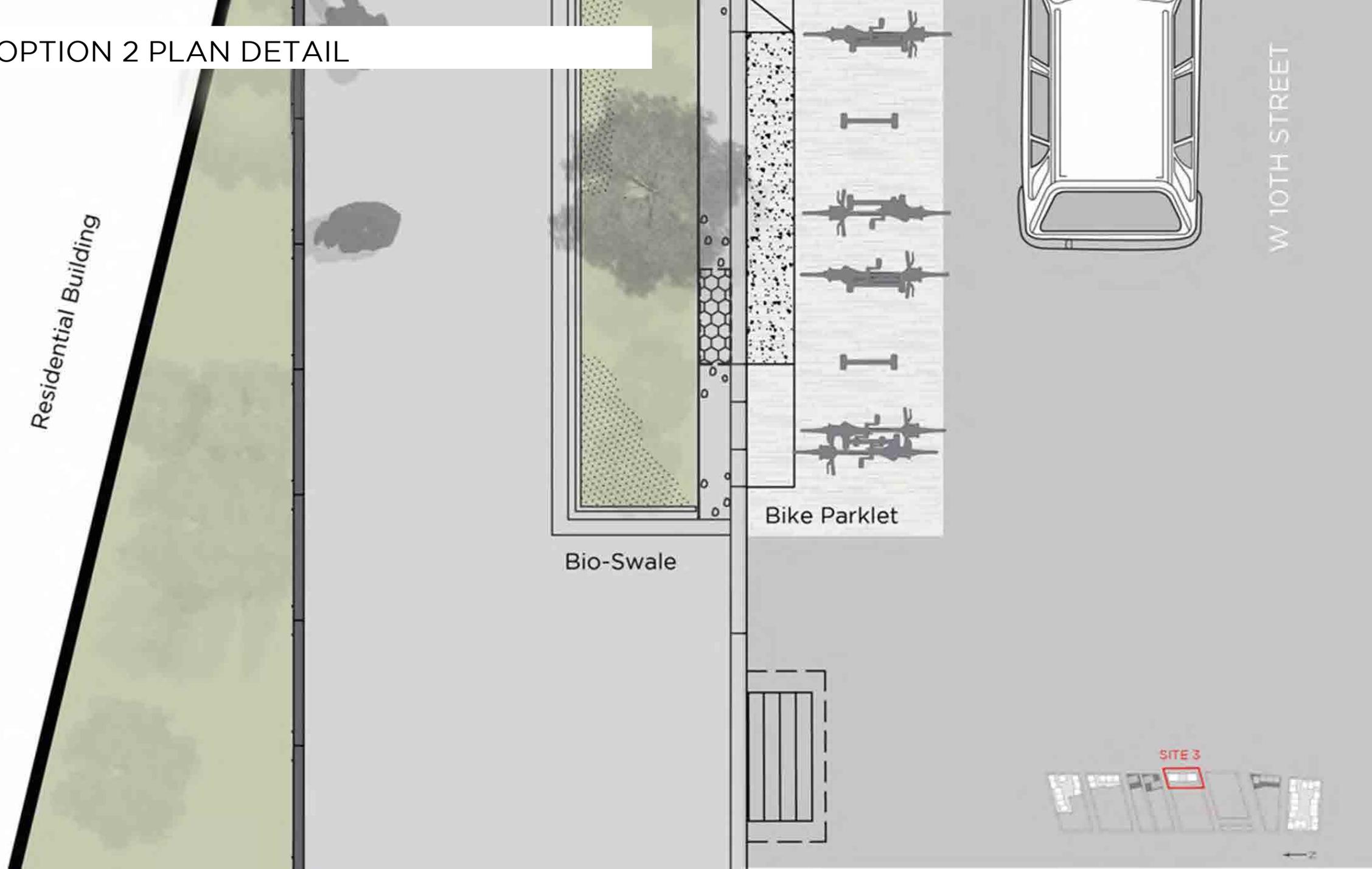
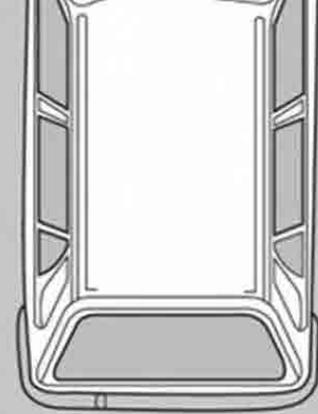
Residential Building

0' 1'

Bio-Swale

Bike Parklet

W 10TH STREET



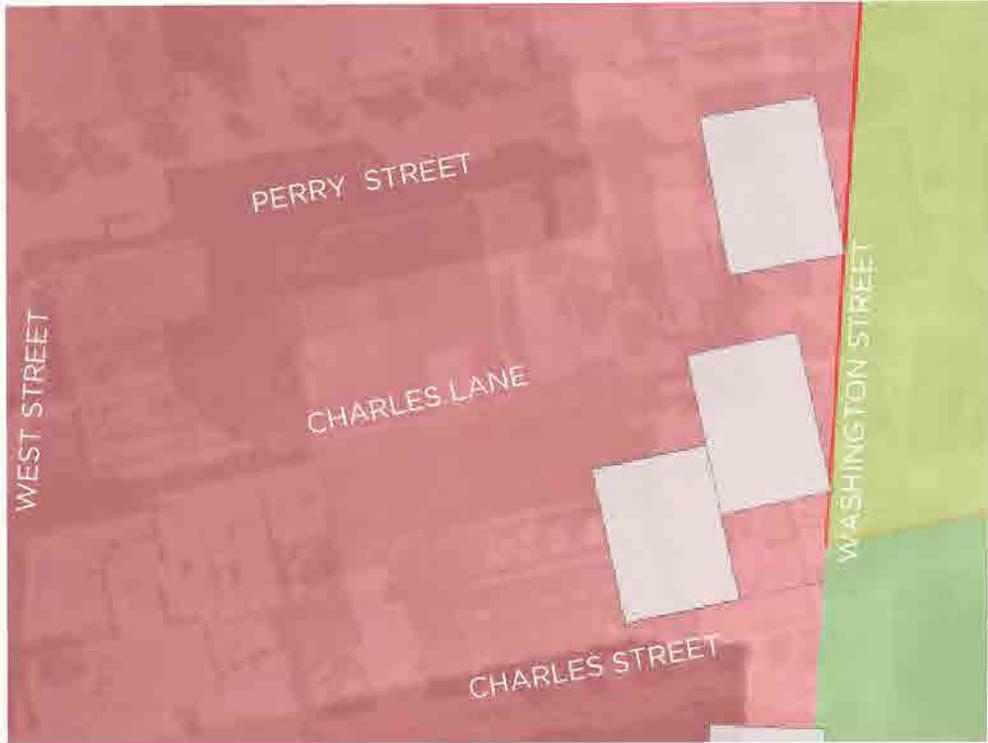
# SITE 3: BUDGET

## BUDGET SITE 3

Task	Cost	Unit	Quantity	Sub Total
Protect Existing Tree	\$1,000	EA	0	\$0
Tree Planting	\$2,000	EA	9	\$18,000
Garden Planting & Irrigation	\$20	SF	1000	\$20,000
Lawn Sod & Irrigation	\$10	SF		\$0
Pervious Hardscape	\$25	SF	3000	\$75,000
Retaining Walls 2' high	\$300	LF	100	\$30,000
Stairs	\$120	SF	0	\$0
Excavation, Haul, Dispose	\$200	CY	0	\$0
Fill and Grade	\$100	CY	0	\$0
Subgrade water storage 3' deep	\$70	SF	800	\$56,000
<b>Subtotal</b>				<b>\$199,000</b>
Contractor's Mobilization, O&P	15%			\$29,850
Contingency	30%			\$59,700
<b>TOTAL</b>				<b>\$288,550</b>

# SITE 4: ANALYSIS

## HURRICANE EVACUATION ZONES



## HYDROLOGY ANALYSIS

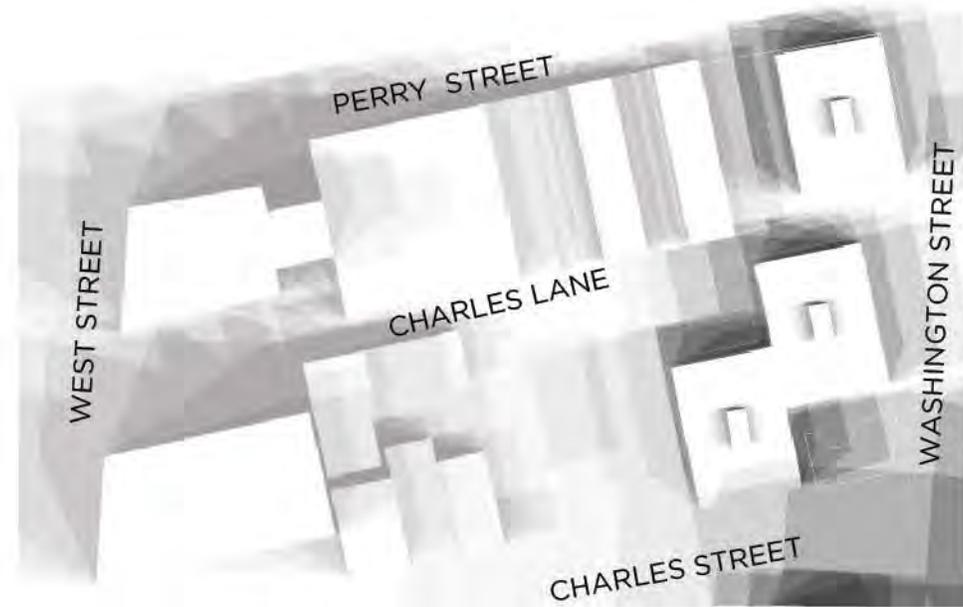


# SITE 4: ANALYSIS

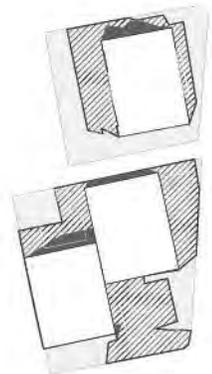
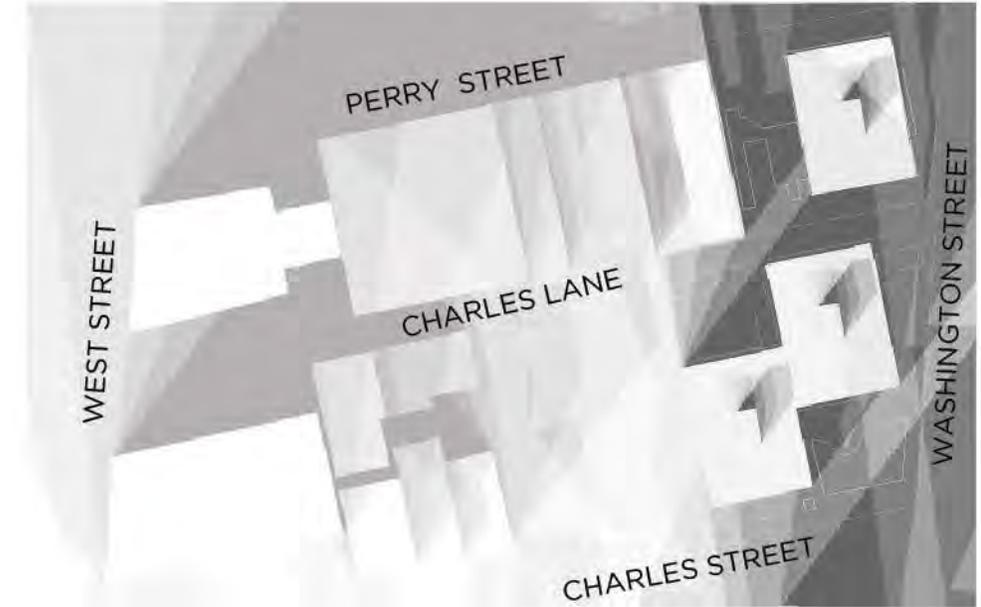
## MICRO-CLIMATE SHADOW STUDY - SUMMER|WINTER

HOURLY SUMMER AND WINTER SHADOW FROM SUNRISE TO SUNSET

**SUMMER** SHADOW | JUNE 21ST



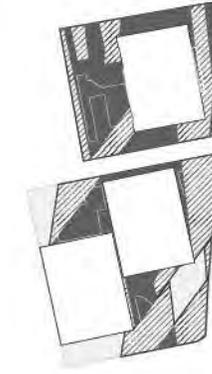
**WINTER** SHADOW | DEC 21ST



June 21st

■ Deep Shadow

▨ Moderate Shadow



Dec 21st

■ Deep Shadow

▨ Moderate Shadow

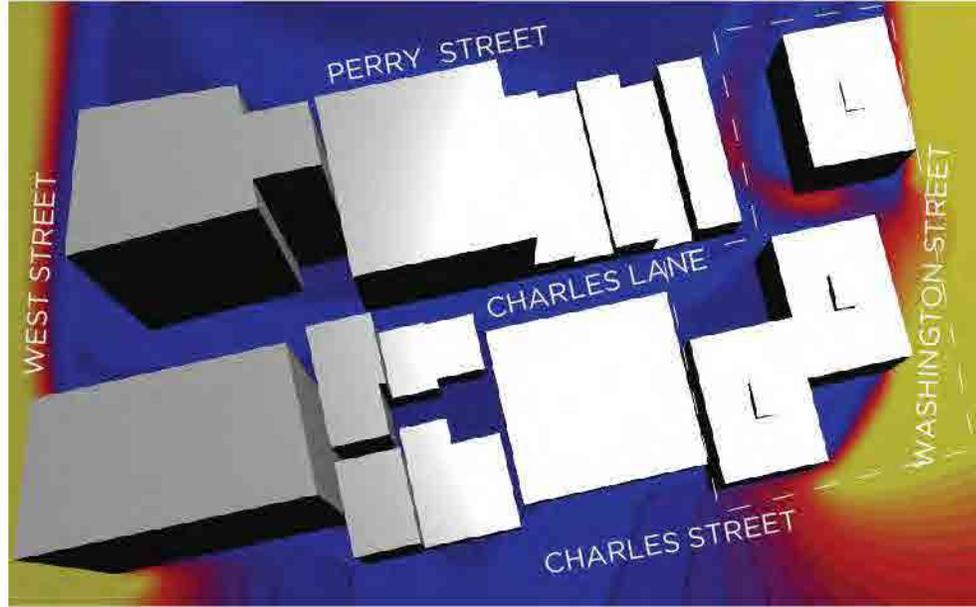


# SITE 4: ANALYSIS

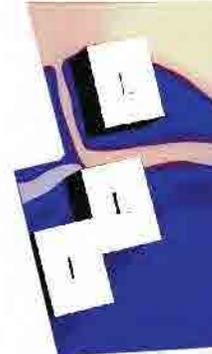
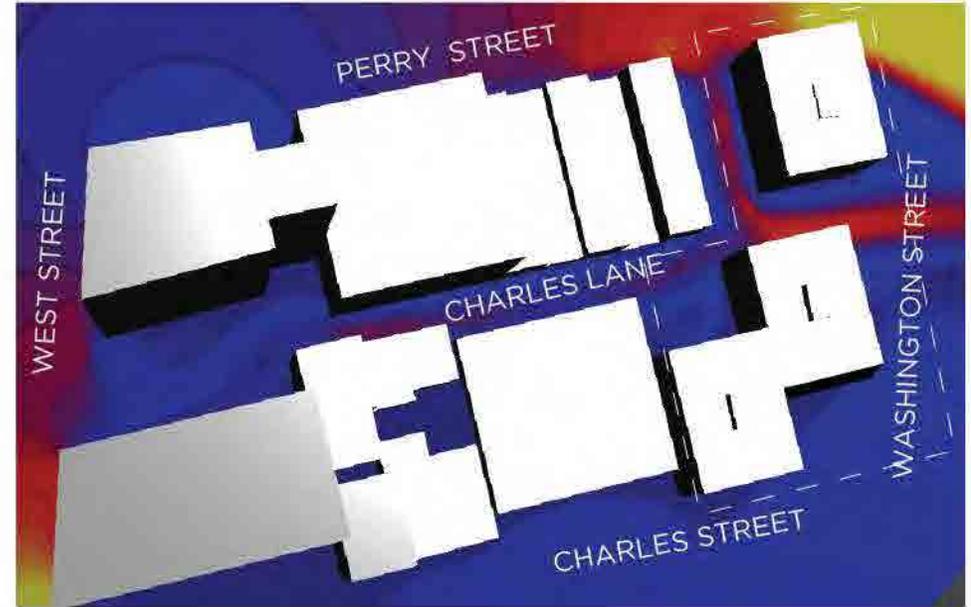
## MICRO-CLIMATE WIND TUNNEL - SUMMER|WINTER



SUMMER WIND DIRECTION: SOUTH



WINTER WIND DIRECTION: NORTHWEST



# SITE 4: ANALYSIS

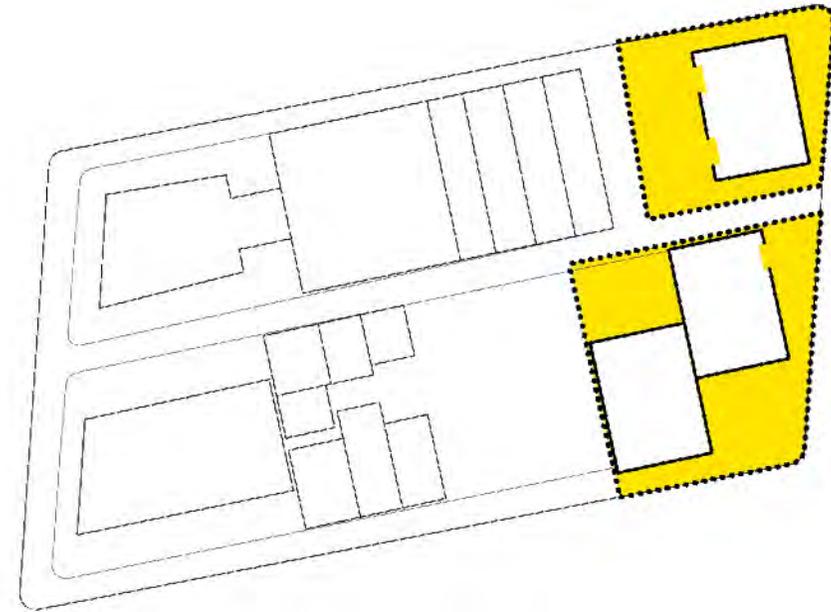
## PERMEABLE SURFACES ANALYSIS



**SITE 4** | 15,127 sf ( include sidewalk )  
**18% PERMEABLE SPACE** | 2,773 sf  
**82% IMPERMEABLE SPACE** | 12,354 sf

 **PERMEABLE SPACE**  
 **IMPERMEABLE SPACE**

## COMMON SPACE ANALYSIS



**SITE 4 OPEN SPACE** | 8,849 sf  
**0% SEMI-PRIVATE SPACE** | 0 sf  
**100% COMMUNAL SPACE** | 8,848 sf

 **SEMI-PRIVATE OUTDOOR SPACE**  
 **COMMUNAL OUTDOOR SPACE**



# SITE 4: CONCEPT DIAGRAM

A. **Condense or Relocate** maintenance storage to free up more community space



Storage Space



# SITE 4: CONCEPT DIAGRAM

B. **Regrade** lower level spaces to create connected network of open space

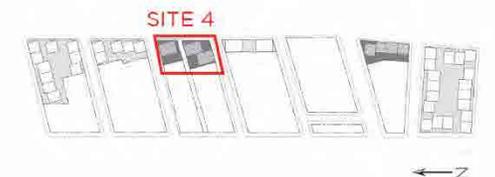


# SITE 4: CONCEPT DIAGRAM

C. **Design** pedestrian connections to link space across the alley

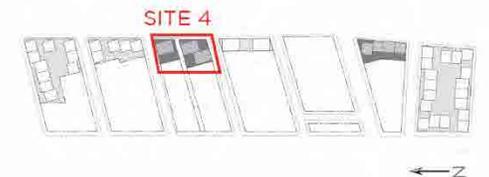
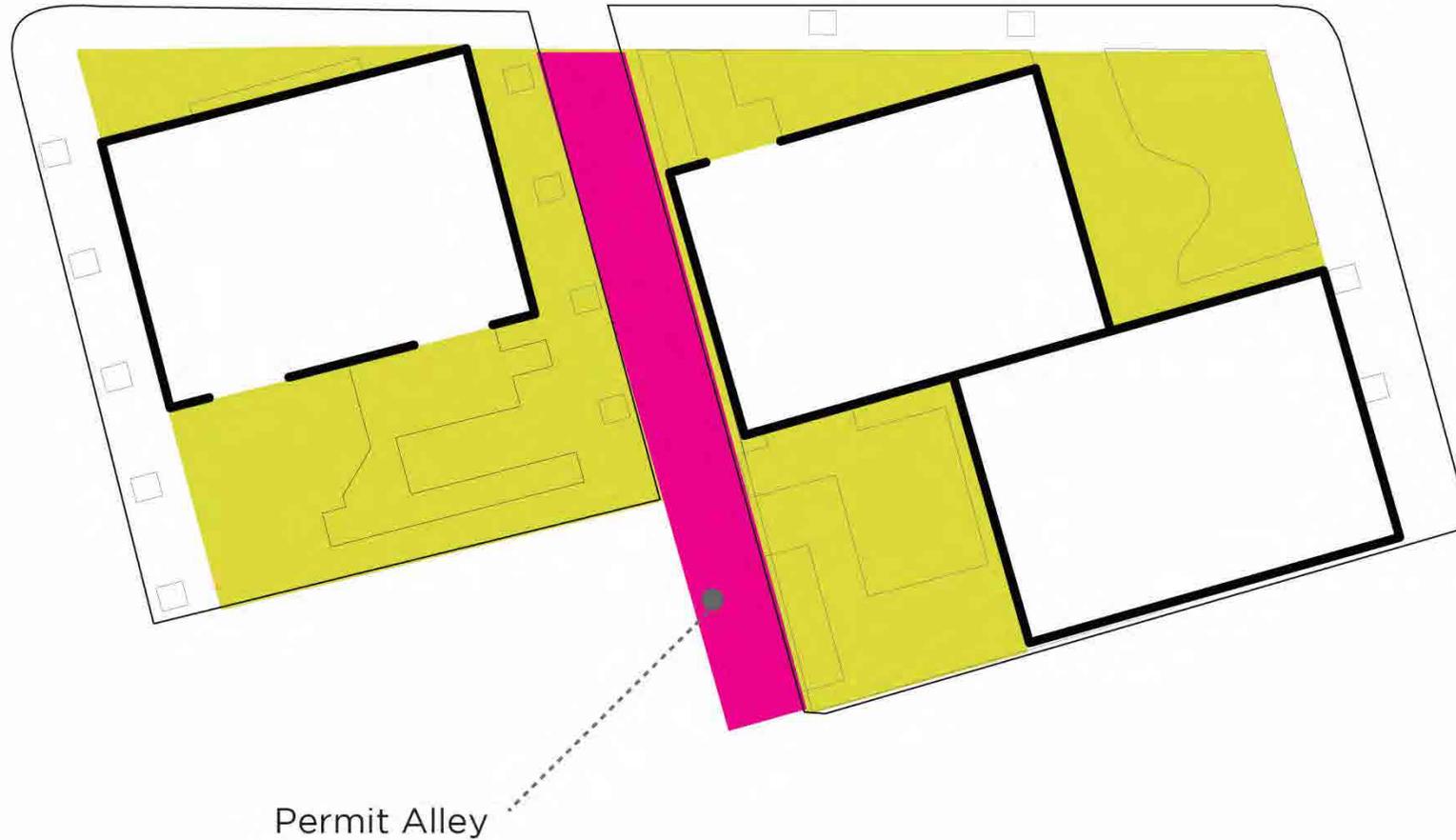


Pedestrian  
Crossngs



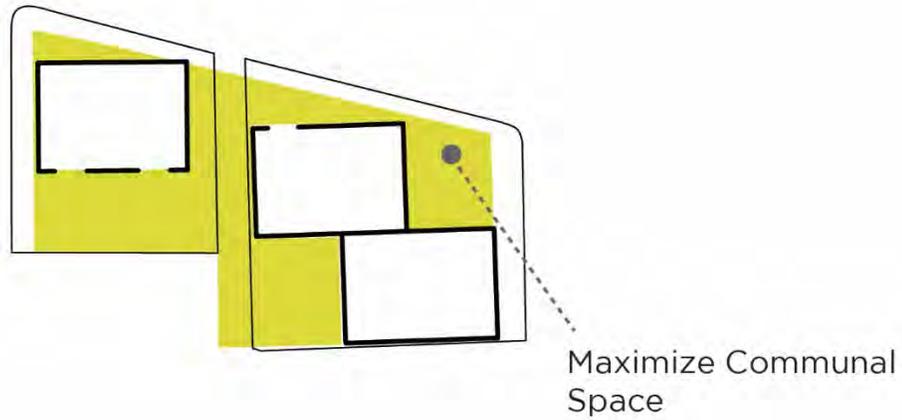
# SITE 4: CONCEPT DIAGRAM

- D. **Close** a portion of the alley, via city permit, to allow occasional large events

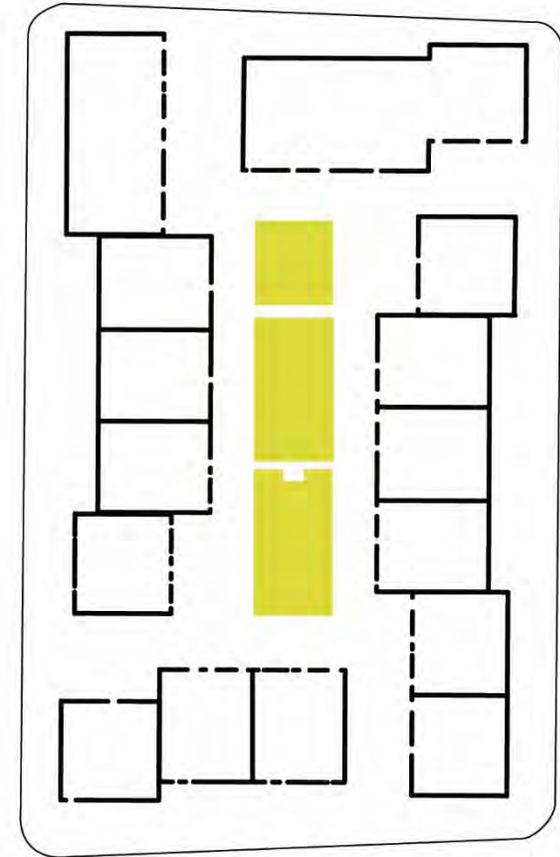


# SITE 4: CONCEPT DIAGRAM

E. **Resulting** connected common space in Site 4 could be larger than Site 1



SITE 4: 6790 SF



SITE 1: 3910 SF

# SITE 4: PLAN



REGRADE SPACE TO  
MAXIMIZE CONNECTIVITY  
AND STORMWATER  
CAPTURE

CLOSE A PORTION OF THE  
ALLEY WHEN POSSIBLE

CONDENSE OR RELOCATE  
MAINTENANCE STORAGE

CONNECT LOWER  
LEVEL SPACES  
WHERE POSSIBLE

RECAPTURE LARGE  
OPEN SPACES FOR  
PUBLIC USE

PERRY STREET

CHARLES LANE

CHARLES STREET

West St

WEST STREET

WASHINGTON STREET

# SITE 4: PERSPECTIVE



# SITE 4: BUDGET

## BUDGET SITE 4

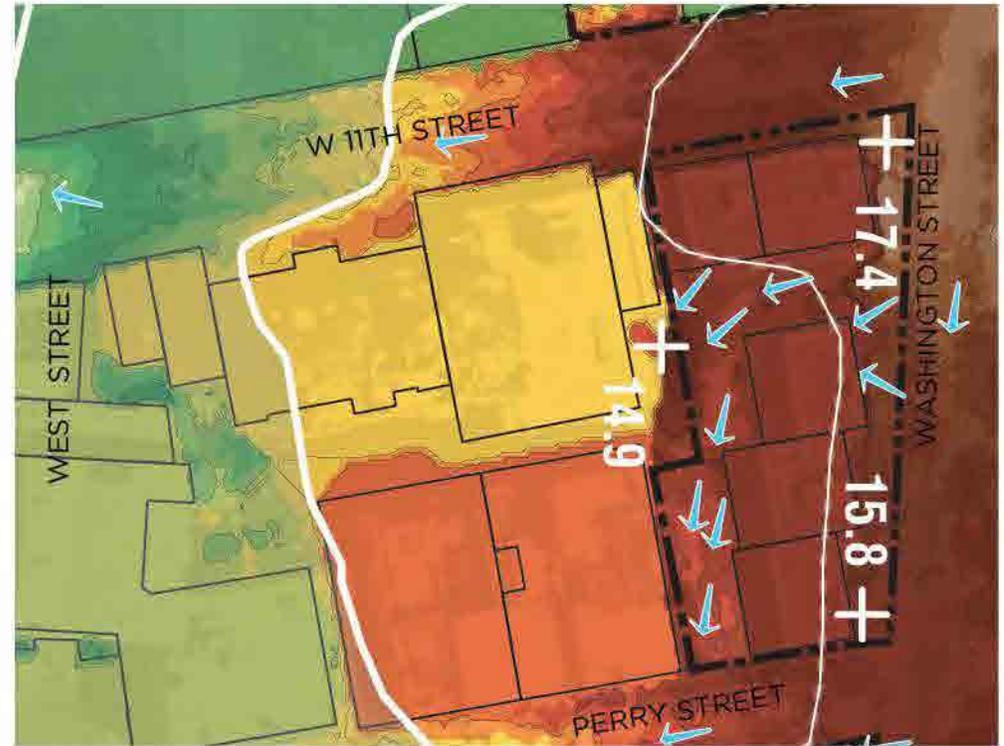
Task	Cost	Unit	Quantity	Sub Total
Protect Existing Tree	\$1,000	EA	3	\$3,000
Tree Planting	\$2,000	EA	6	\$12,000
Garden Planting & Irrigation	\$20	SF	2000	\$40,000
Lawn Sod & Irrigation	\$10	SF	2000	\$20,000
Pervious Hardscape	\$25	SF	2800	\$70,000
Retaining Walls 2' high	\$300	LF	200	\$60,000
Stairs	\$120	SF	500	\$60,000
Excavation, Haul, Dispose	\$200	CY	220	\$44,000
Fill and Grade	\$100	CY	0	\$0
Subgrade water storage 3' deep	\$70	SF	400	\$28,000
<b>Subtotal</b>				<b>\$337,000</b>
Contractor's Mobilization, O&P	15%			\$50,550
Contingency	30%			\$101,100
<b>TOTAL</b>				<b>\$488,650</b>

# SITE 5: ANALYSIS

## HURRICANE EVACUATION ZONES



## HYDROLOGY ANALYSIS

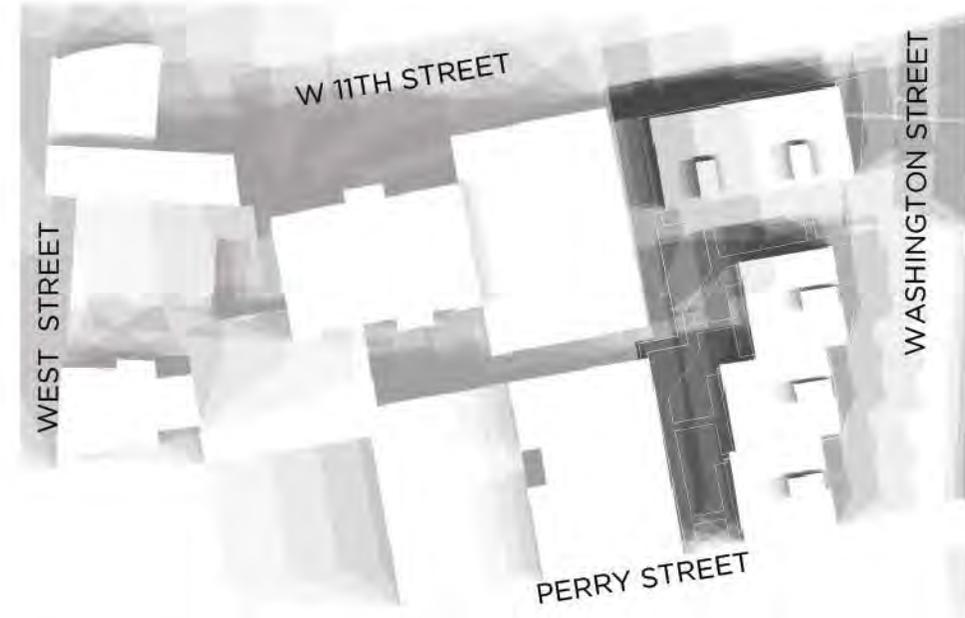


# SITE 5: ANALYSIS

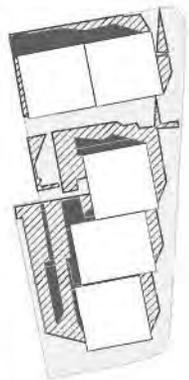
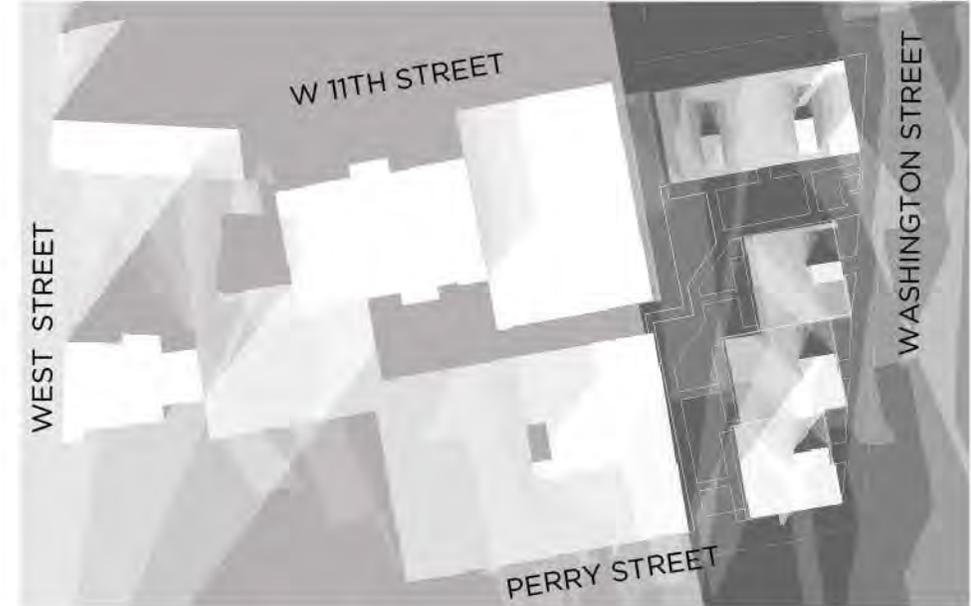
## MICRO-CLIMATE SHADOW STUDY - SUMMER|WINTER

HOURLY SUMMER AND WINTER SHADOW FROM SUNRISE TO SUNSET

**SUMMER** SHADOW | JUNE 21ST



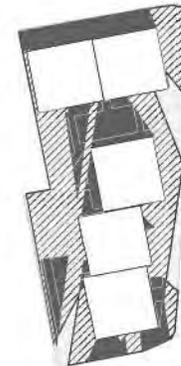
**WINTER** SHADOW | DEC 21ST



June 21st

■ Deep Shadow

▨ Moderate Shadow



Dec 21st

■ Deep Shadow

▨ Moderate Shadow



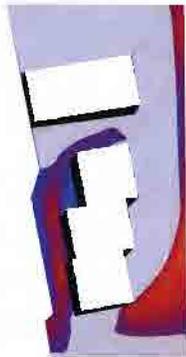
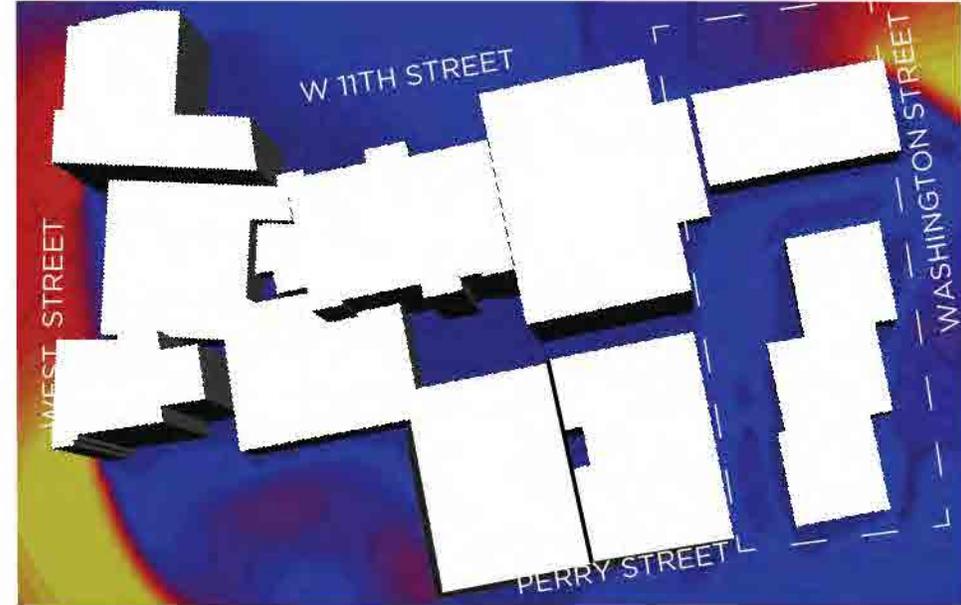
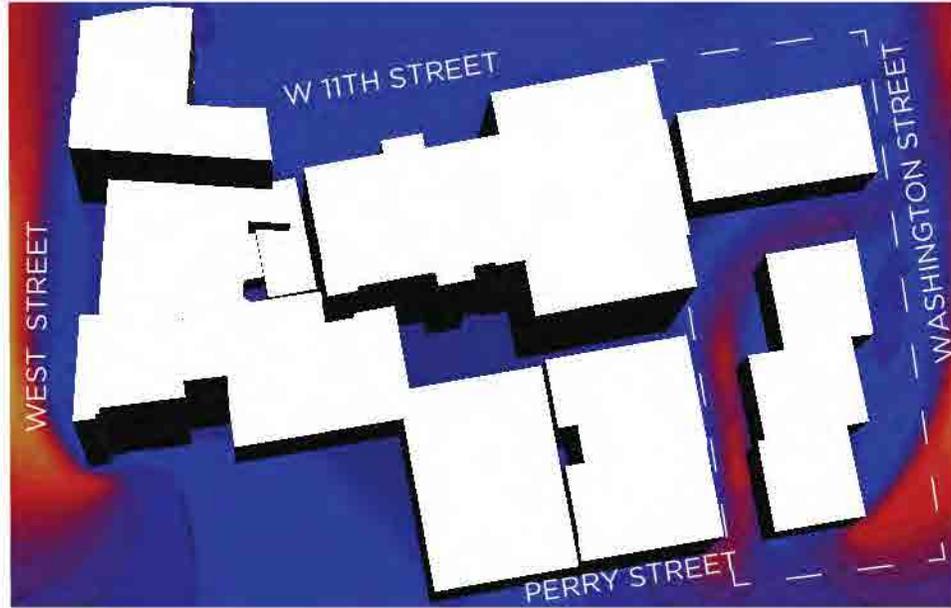
# SITE 5: ANALYSIS

## MICRO-CLIMATE WIND TUNNEL - SUMMER|WINTER



SUMMER WIND DIRECTION: SOUTH

WINTER WIND DIRECTION: NORTHWEST



# SITE 5: ANALYSIS

## PERMEABLE SURFACES ANALYSIS



**SITE 5** | 14,756 sf ( include sidewalk )  
**22% PERMEABLE SPACE** | 3,285 sf  
**78% IMPERMEABLE SPACE** | 11,254 sf

 PERMEABLE SPACE  
 IMPERMEABLE SPACE

## COMMON SPACE ANALYSIS

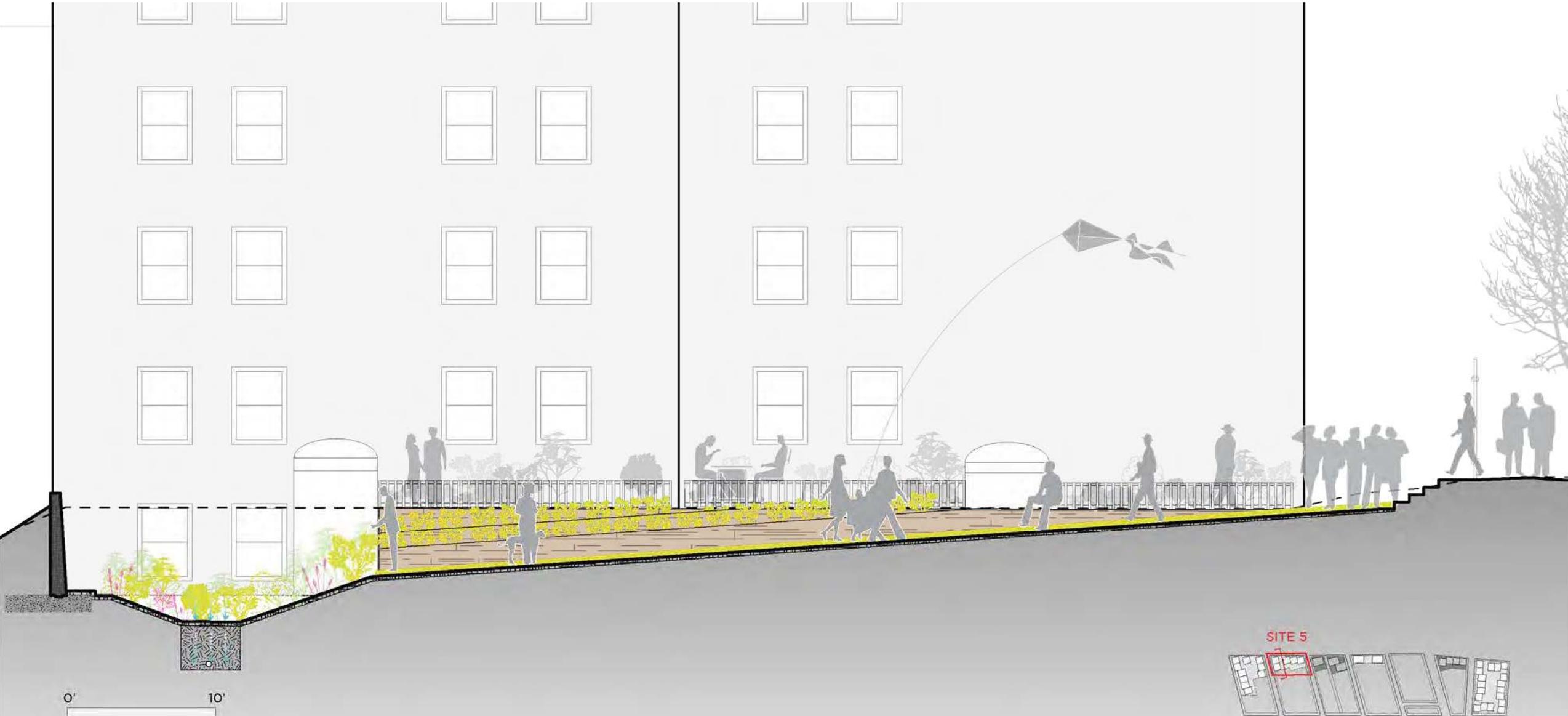


**SITE 5 OPEN SPACE** | 8,485 sf  
**38% SEMI-PRIVATE SPACE** | 3,239 sf  
**62% COMMUNAL SPACE** | 5,246 sf

 SEMI-PRIVATE OUTDOOR SPACE  
 COMMUNAL OUTDOOR SPACE



# SITE 5: CONCEPT SECTION



# SITE 5: PLAN

W 11TH STREET

WEST STREET

WASHINGTON STREET

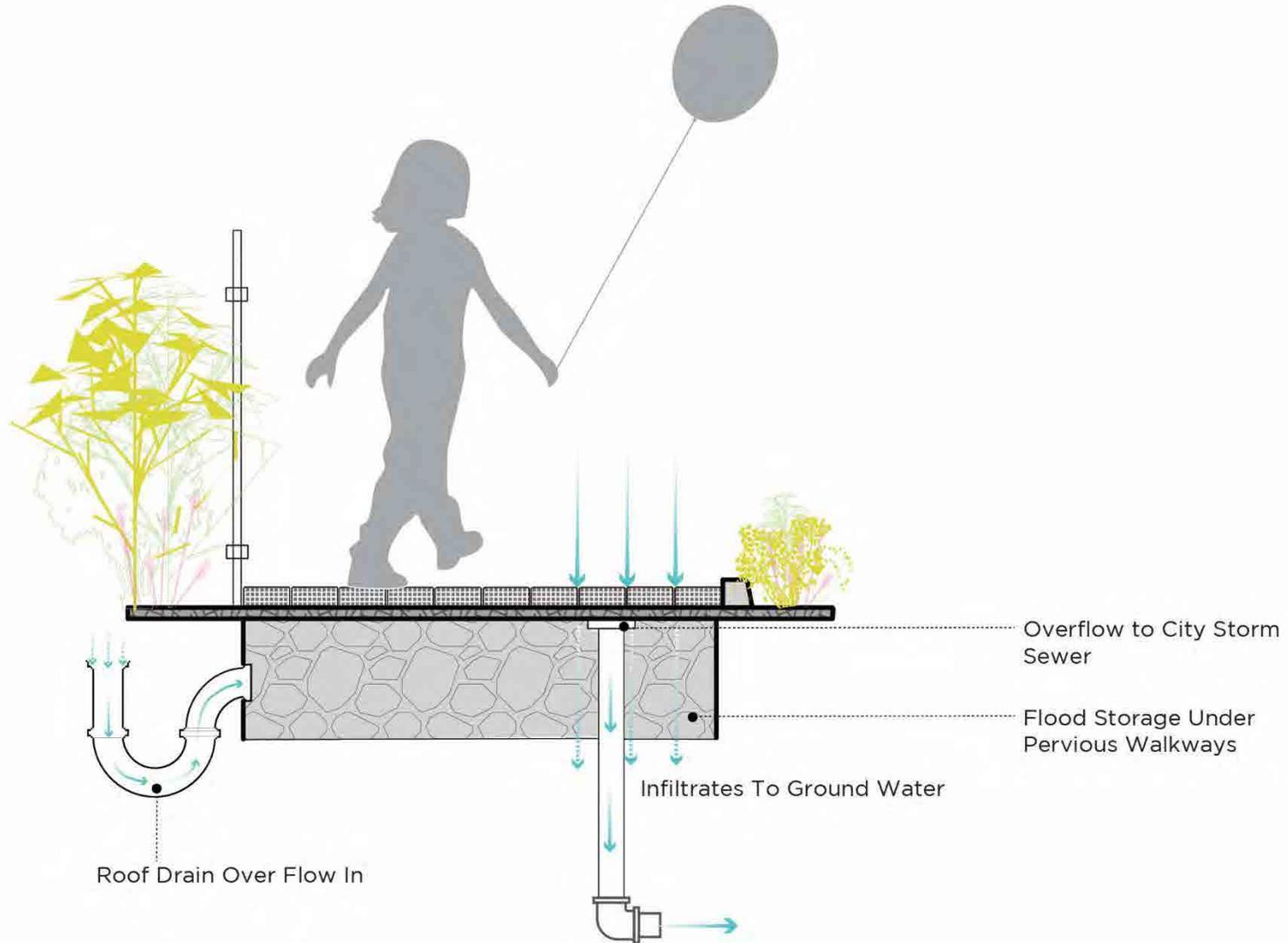
LOWER GROUND  
ELEVATION BY 4.5'  
TO MEET LEVEL OF  
LAUNDRY ROOM;  
ADD FLOOD STORAGE

PERRY STREET

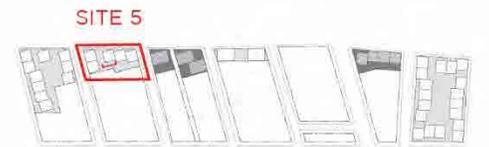
SITE 5



# SITE 5: PATHWAY SECTION DETAIL



0' 1'



← Z

# SITE 5: PERSPECTIVE



# SITE 5: BUDGET

## BUDGET SITE 5

Task	Cost	Unit	Quantity	Sub Total
Protect Existing Tree	\$1,000	EA	7	\$7,000
Tree Planting	\$2,000	EA	5	\$10,000
Garden Planting & Irrigation	\$20	SF	700	\$14,000
Lawn Sod & Irrigation	\$10	SF		\$0
Pervious Hardscape	\$25	SF	2000	\$50,000
Retaining Walls 2' high	\$300	LF	300	\$90,000
Stairs	\$120	SF	100	\$12,000
Excavation, Haul, Dispose	\$200	CY	200	\$40,000
Fill and Grade	\$100	CY	0	\$0
Subgrade water storage 3' deep	\$70	SF	400	\$28,000
<b>Subtotal</b>				\$251,000
Contractor's Mobilization, O&P	15%			\$37,650
Contingency	30%			\$75,300
<b>TOTAL</b>				<b>\$363,950</b>

# SITE 5: MATERIALS

## RETAINING WALLS



### Construction considerations Cost Comparison

Price affected by	Location	Installation	O&M
Material cost	.....	.....	.....
Soils	.....	.....	.....
Height/Retainage	.....	.....	.....
Access to site	.....	.....	.....
Fill material	.....	.....	.....
	Stone.....	\$\$\$	.....
	Brick .....	\$\$\$	.....
	Cast concrete .....	\$\$	.....
	Concrete block .....	\$	.....
	Planted cribbing.....	\$	.....
	Timber .....	\$	.....

The primary cost variable is the height of the wall, and the amount of earth retained behind it, as these factors increase the structural demands. Note that curved walls carry a cost premium due to the complexity of construction.

# SITE 6: ANALYSIS

## HURRICANE EVACUATION ZONES



## HYDROLOGY ANALYSIS

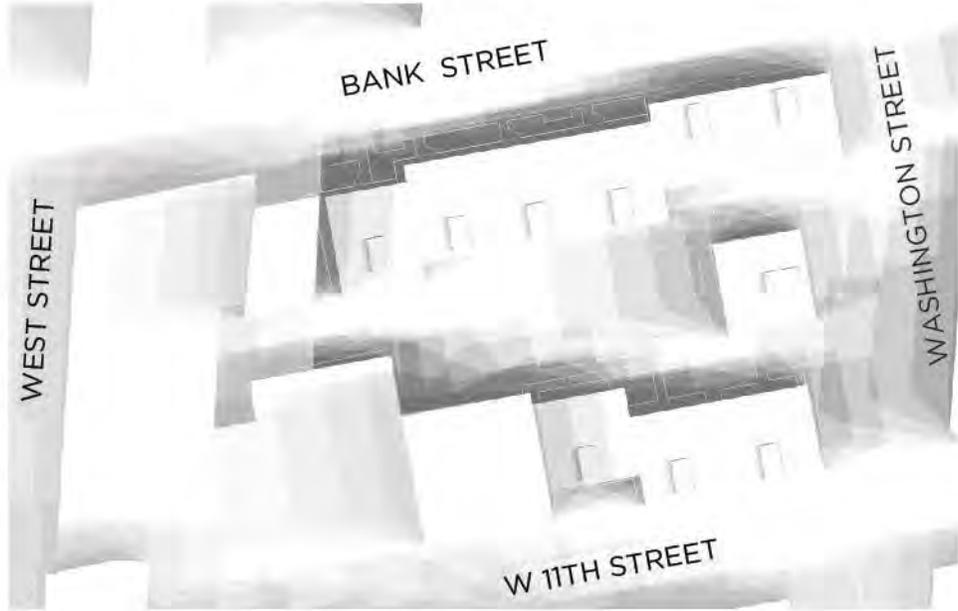


# SITE 6: ANALYSIS

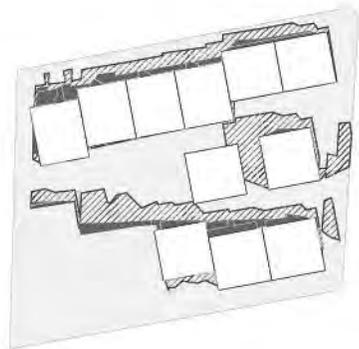
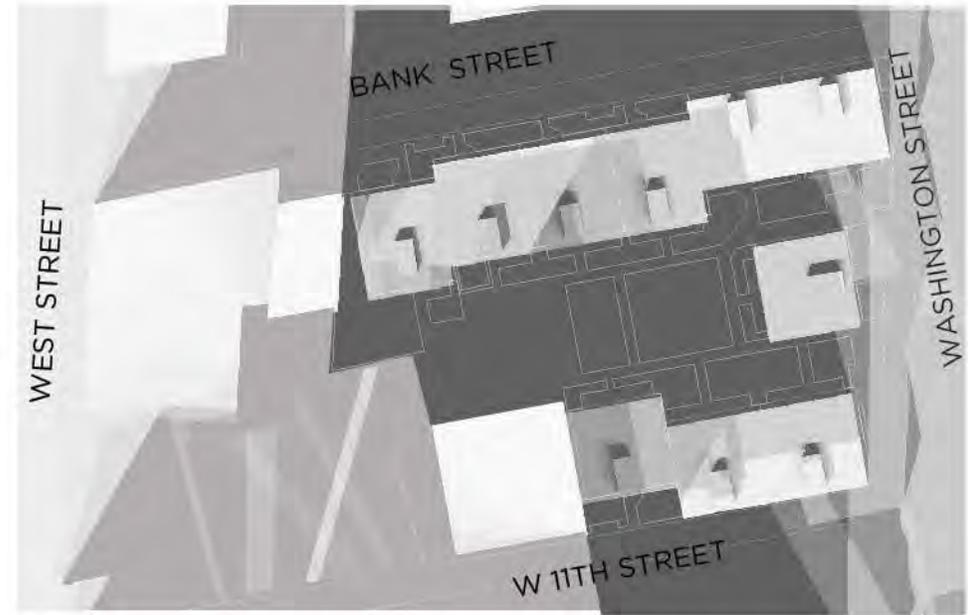
## MICRO-CLIMATE SHADOW STUDY - SUMMER|WINTER

HOURLY SUMMER AND WINTER SHADOW FROM SUNRISE TO SUNSET

**SUMMER** SHADOW | JUNE 21ST



**WINTER** SHADOW | DEC 21ST



June 21st

■ Deep Shadow

▨ Moderate Shadow



Dec 21st

■ Deep Shadow

▨ Moderate Shadow



# SITE 6: ANALYSIS

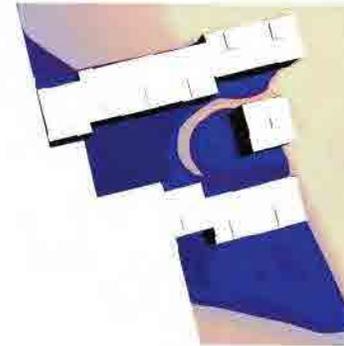
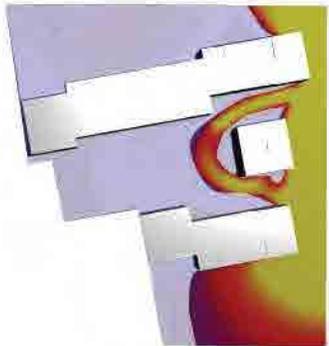
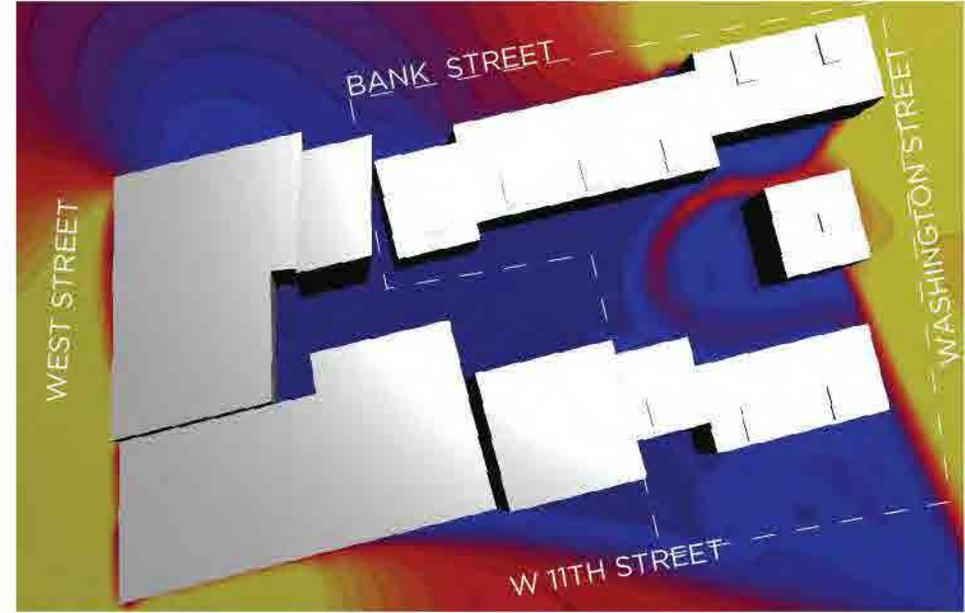
## MICRO-CLIMATE WIND TUNNEL - SUMMER|WINTER



SUMMER WIND DIRECTION: SOUTH

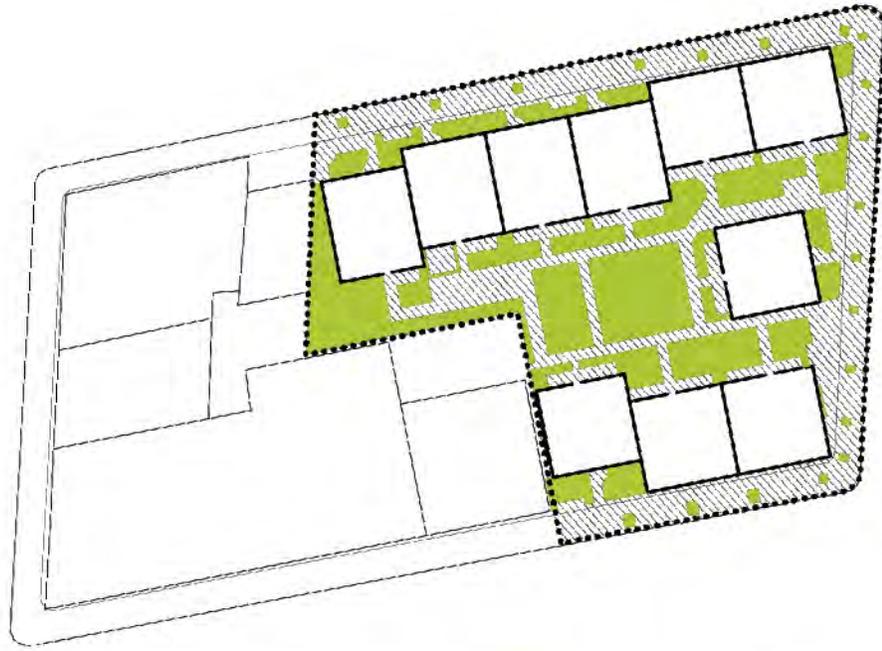


WINTER WIND DIRECTION: NORTHWEST

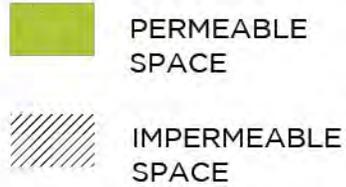


# SITE 6: ANALYSIS

## PERMEABLE SURFACES ANALYSIS



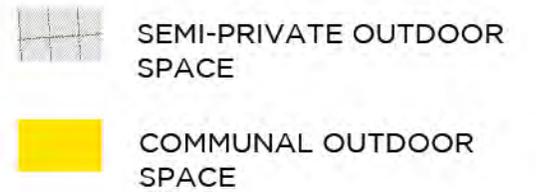
**SITE 6** | 31,895 sf ( include sidewalk )  
25% PERMEABLE SPACE | 7,906 sf  
75% IMPERMEABLE SPACE | 23989 sf



## COMMON SPACE ANALYSIS



**SITE 6 OPEN SPACE** | 18,754 sf  
29% SEMI-PRIVATE SPACE | 5,513 sf  
71% COMMUNAL SPACE | 13,241 sf

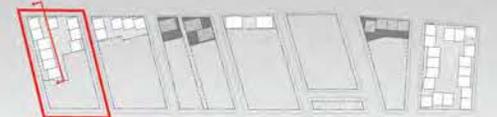


# SITE 6: CONCEPT SECTION



0' 10'

SITE 6

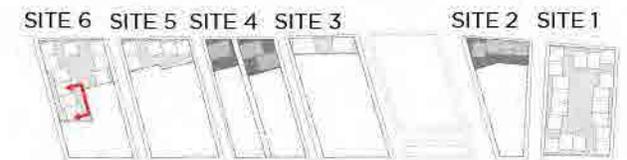


← Z

# SITE 6: PLAN



# SITE 6: RAIN GARDEN SECTION



# SITE 6: PERSPECTIVE



# SITE 6: BUDGET

## BUDGET SITE 6

Task	Cost	Unit	Quantity	Sub Total
Protect Existing Tree	\$1,000	EA	8	\$8,000
Tree Planting	\$2,000	EA	6	\$12,000
Garden Planting & Irrigation	\$20	SF	1800	\$36,000
Lawn Sod & Irrigation	\$10	SF	2500	\$25,000
Pervious Hardscape	\$25	SF	3300	\$82,500
Retaining Walls 2' high	\$300	LF	400	\$120,000
Stairs	\$120	SF	600	\$72,000
Excavation, Haul, Dispose	\$200	CY	800	\$160,000
Fill and Grade	\$100	CY	10	\$1,000
Subgrade water storage 3' deep	\$70	SF	500	\$35,000
<b>Subtotal</b>				\$551,500
Contractor's Mobilization, O&P	15%			\$82,725
Contingency	30%			\$165,450
<b>TOTAL</b>				<b>\$799,675</b>

# SITE 6: MATERIALS



## BIOSWALES AND RAIN GARDENS

### Construction considerations

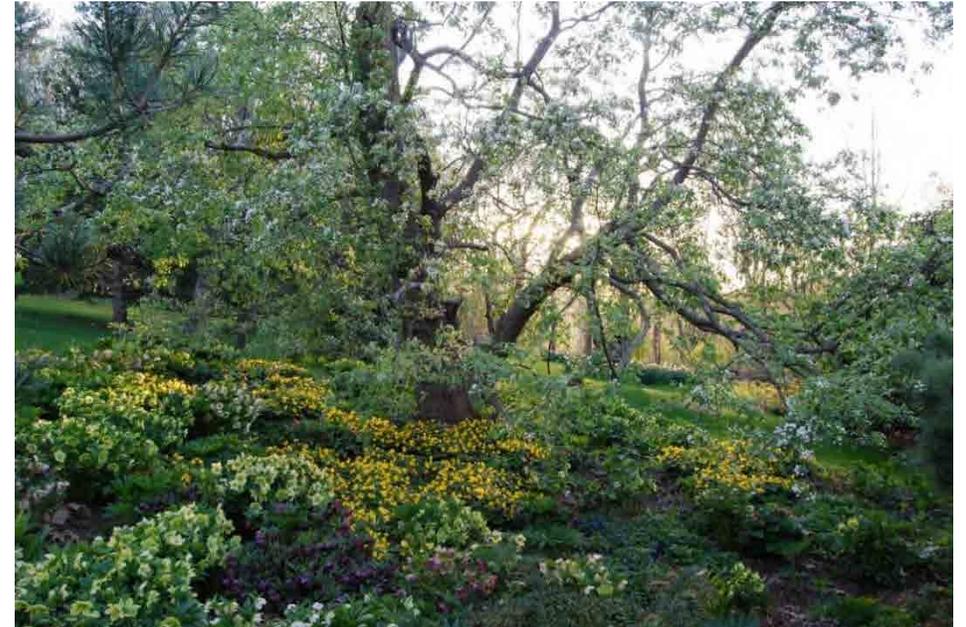
**Price affected by** Subsurface conditions  
Slopes  
Access to building site

Costs vary greatly depending on size, plant material, and site considerations. Bioswales are generally less expensive when used in place of underground piping.

### Cost Comparison

	Installation	O&M
Hard-piped system	\$\$\$\$	\$\$
Bioswales/rain gardens	\$	\$

# PRECEDENTS SHADE LANDSCAPES



# PRECEDENTS SUN LANDSCAPES



# PRECEDENTS WET LANDSCAPES



# PRECEDENTS DRY LANDSCAPES

