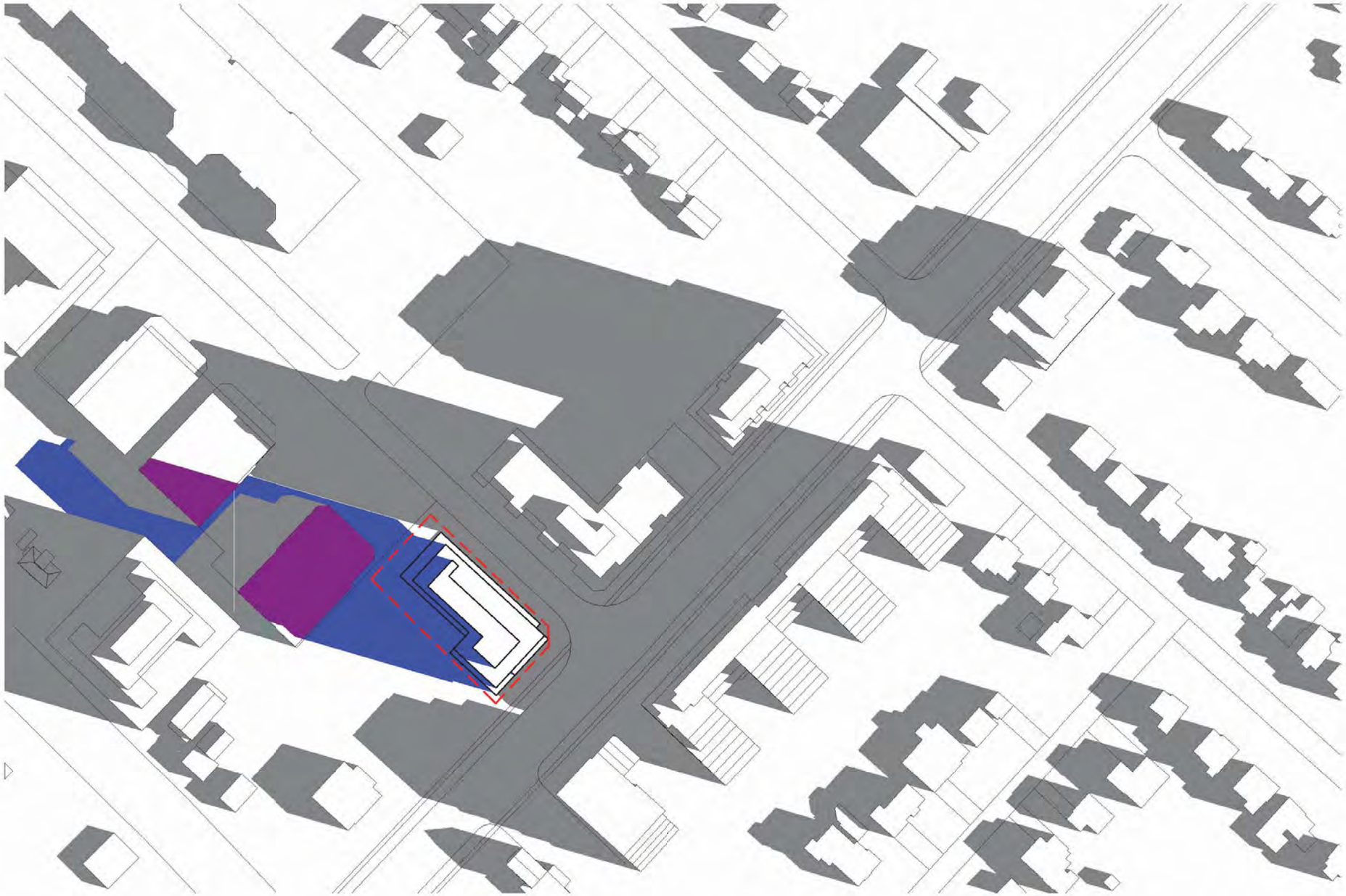


NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

MARCH 21 - 9:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

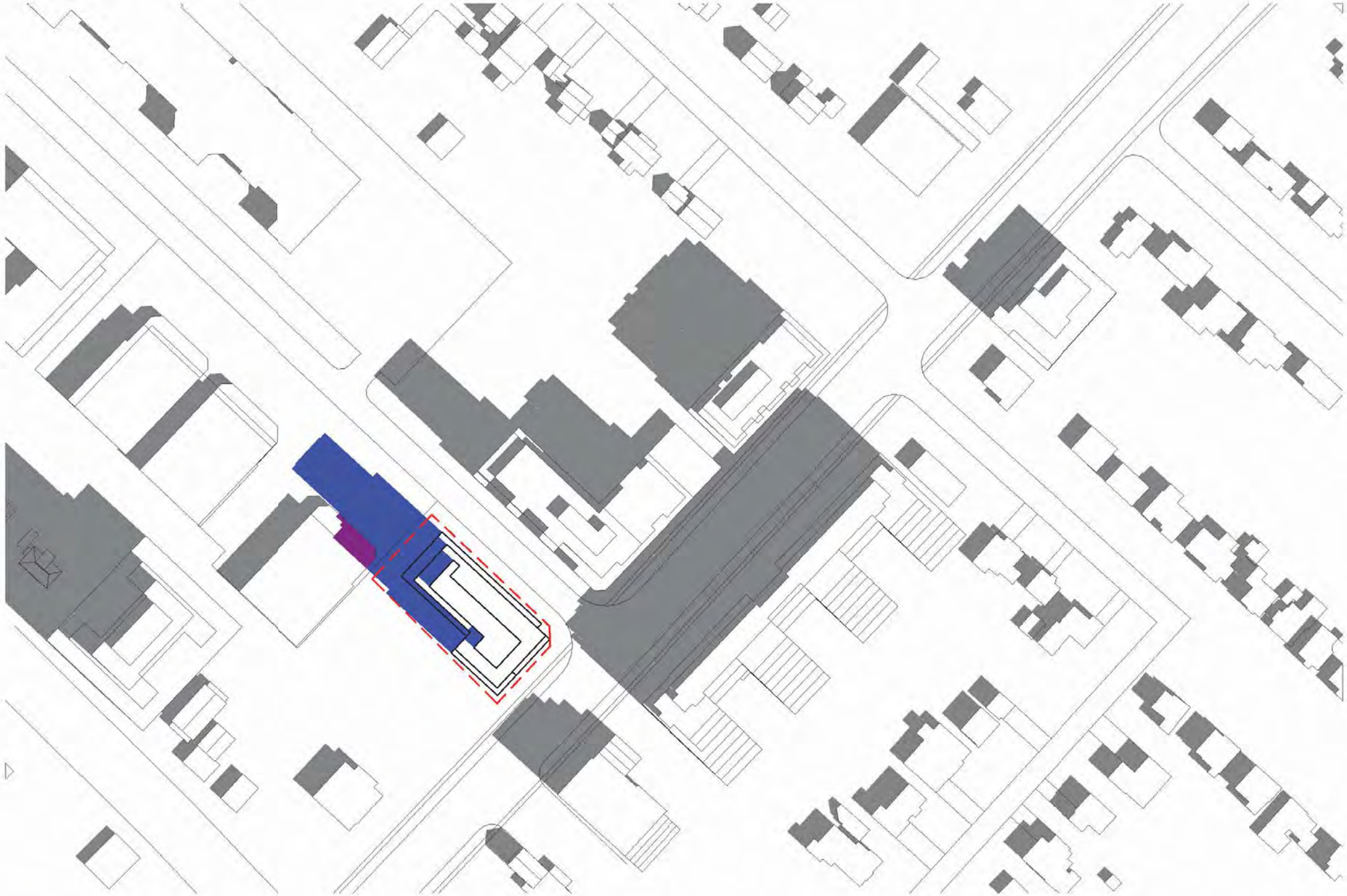
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

MARCH 21 - 10:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

MARCH 21 - 11:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

MARCH 21 - 12:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

MARCH 21 - 1:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

MARCH 21 - 2:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

MARCH 21 - 3:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

MARCH 21 - 4:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

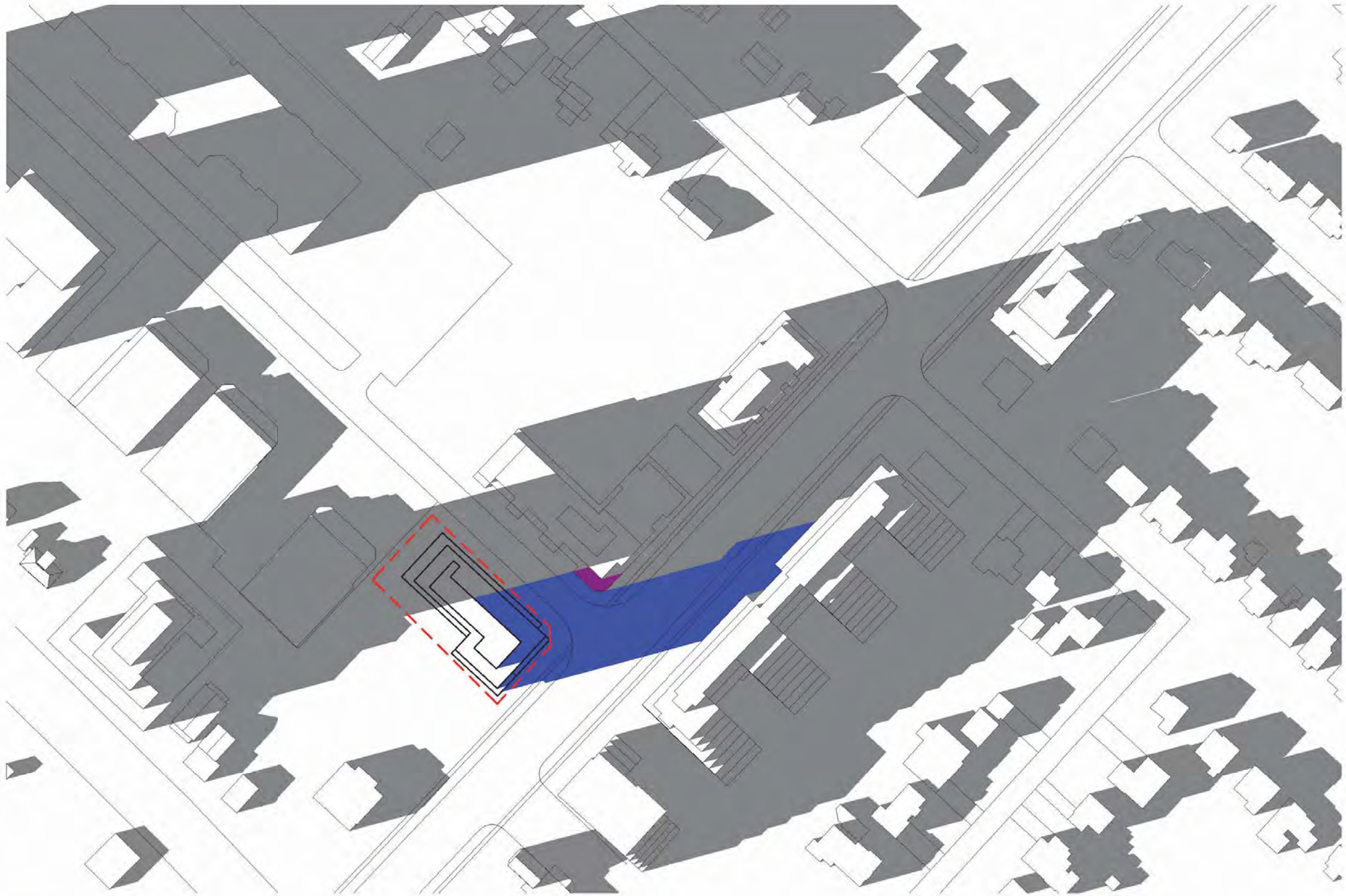
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

MARCH 21 - 5:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

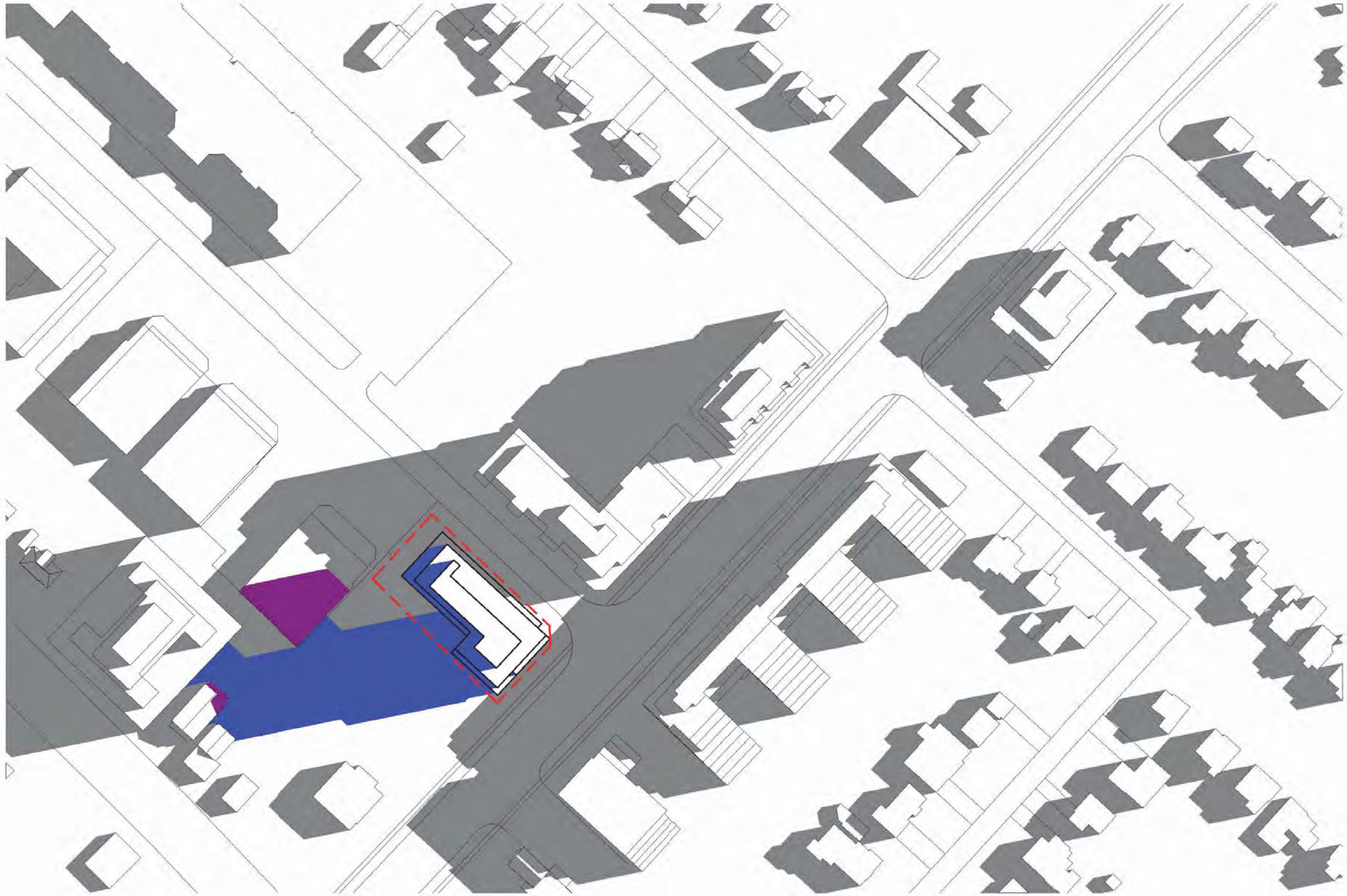
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

MARCH 21 - 6:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

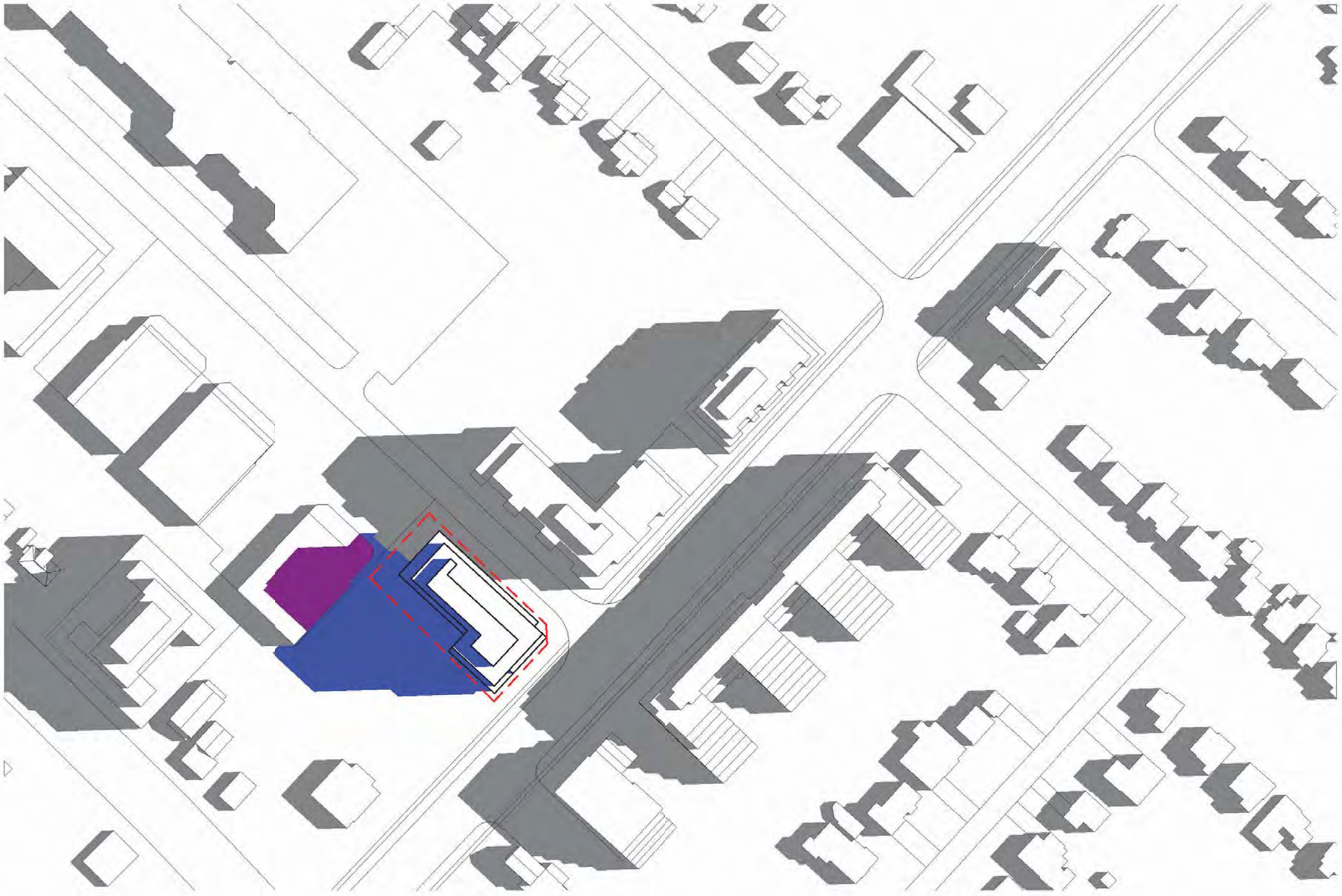
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 8:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 9:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

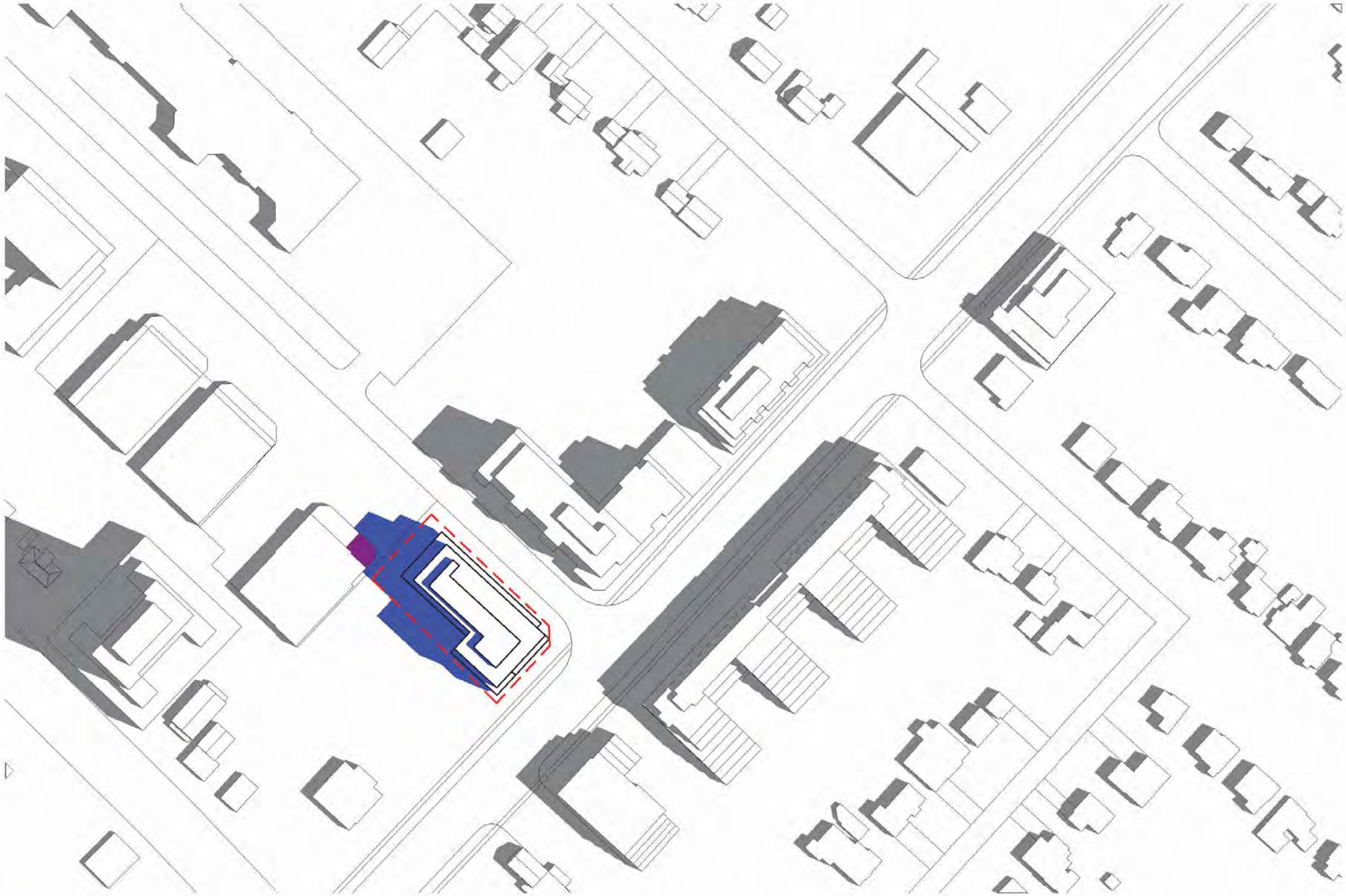
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 10:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 11:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 12:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 1:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 2:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 3:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

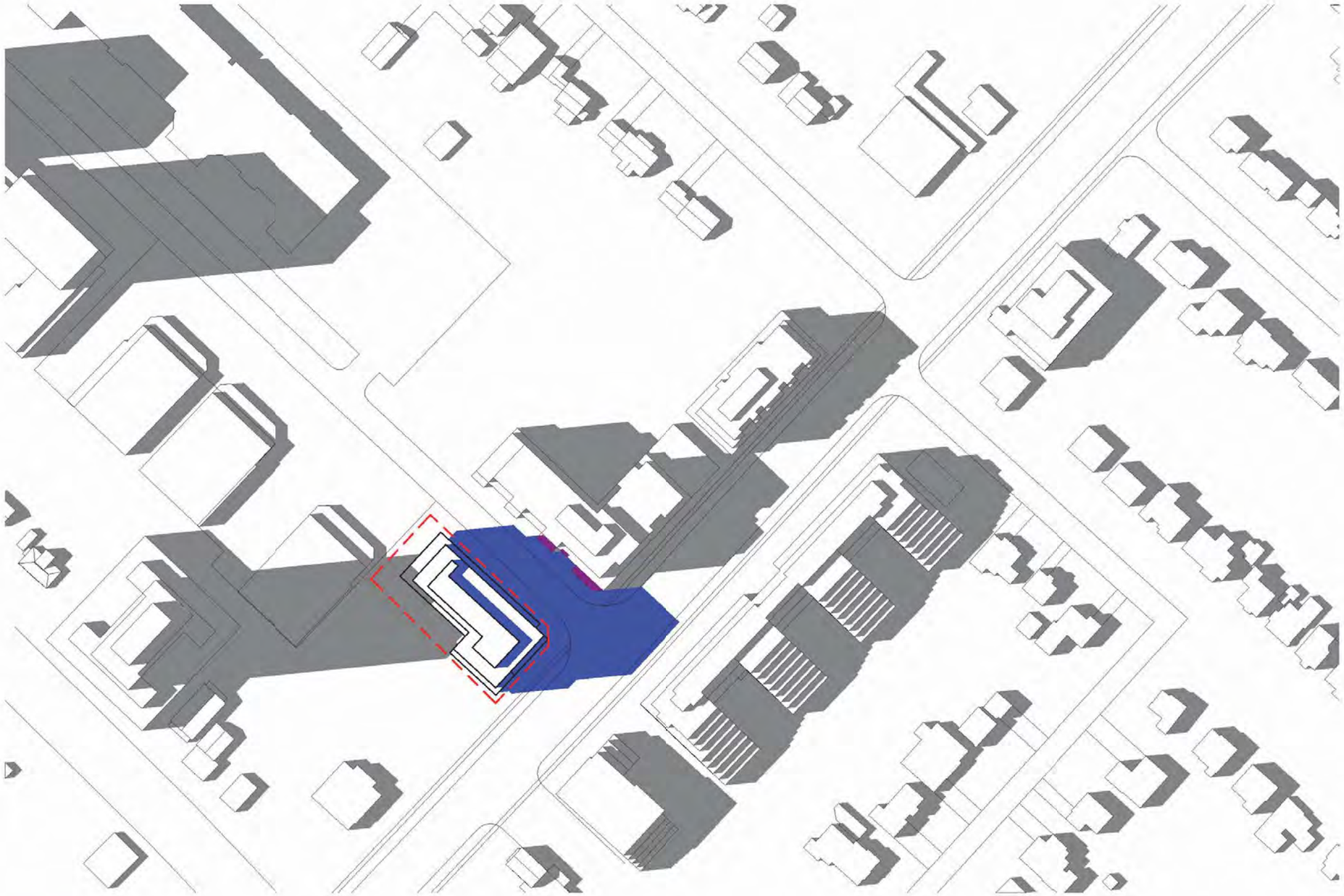
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 4:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

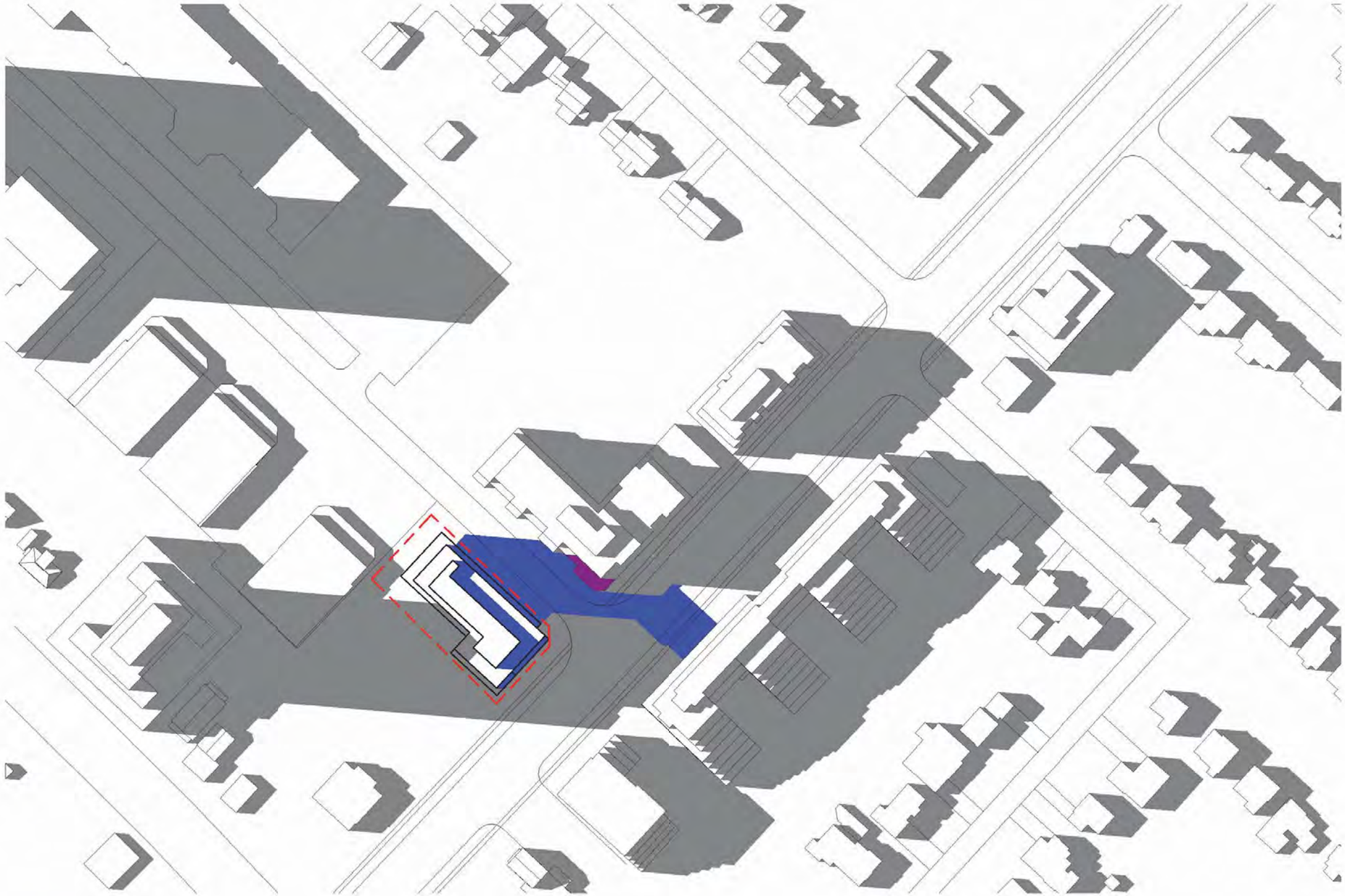
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 5:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

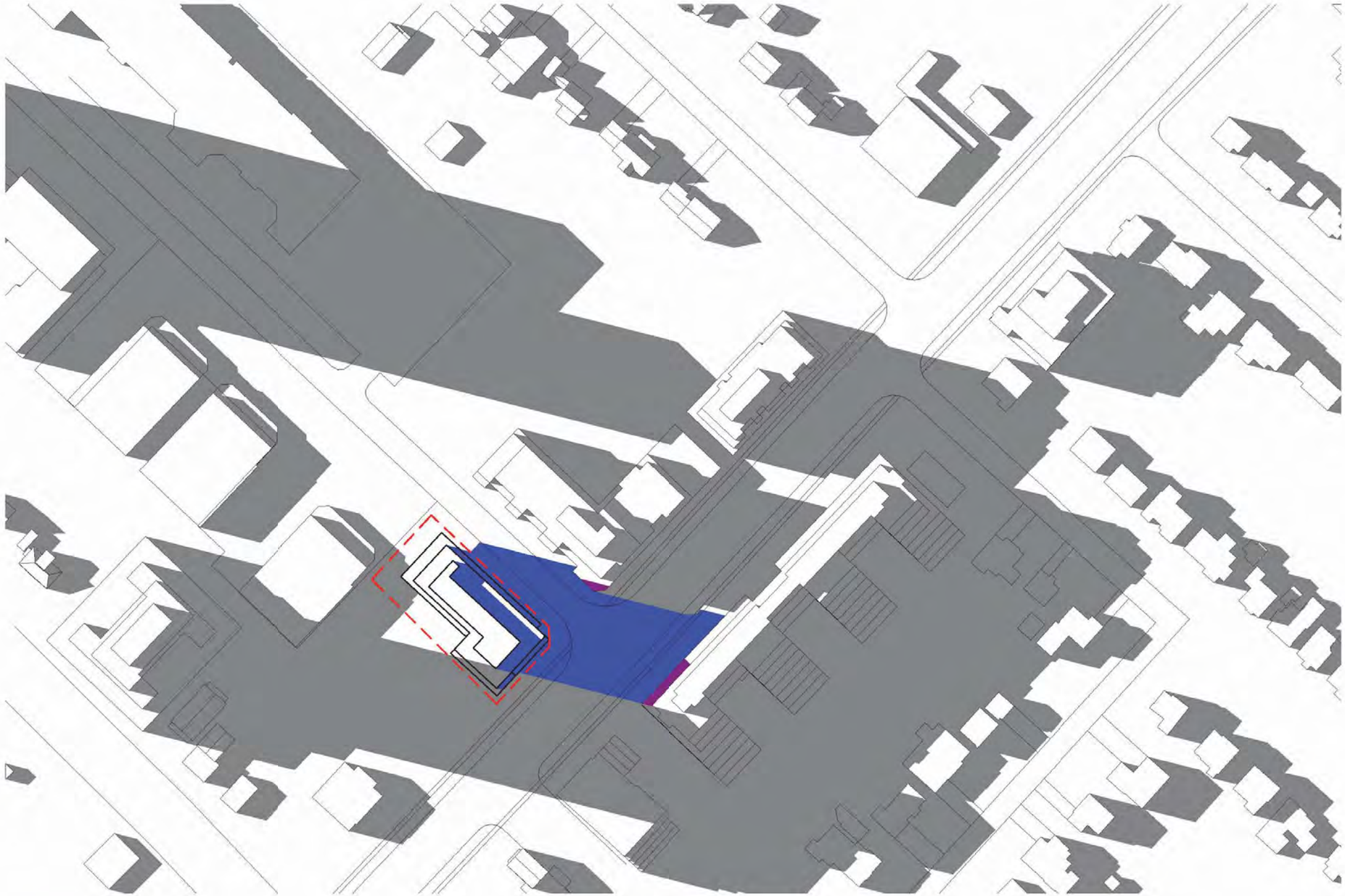
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 6:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

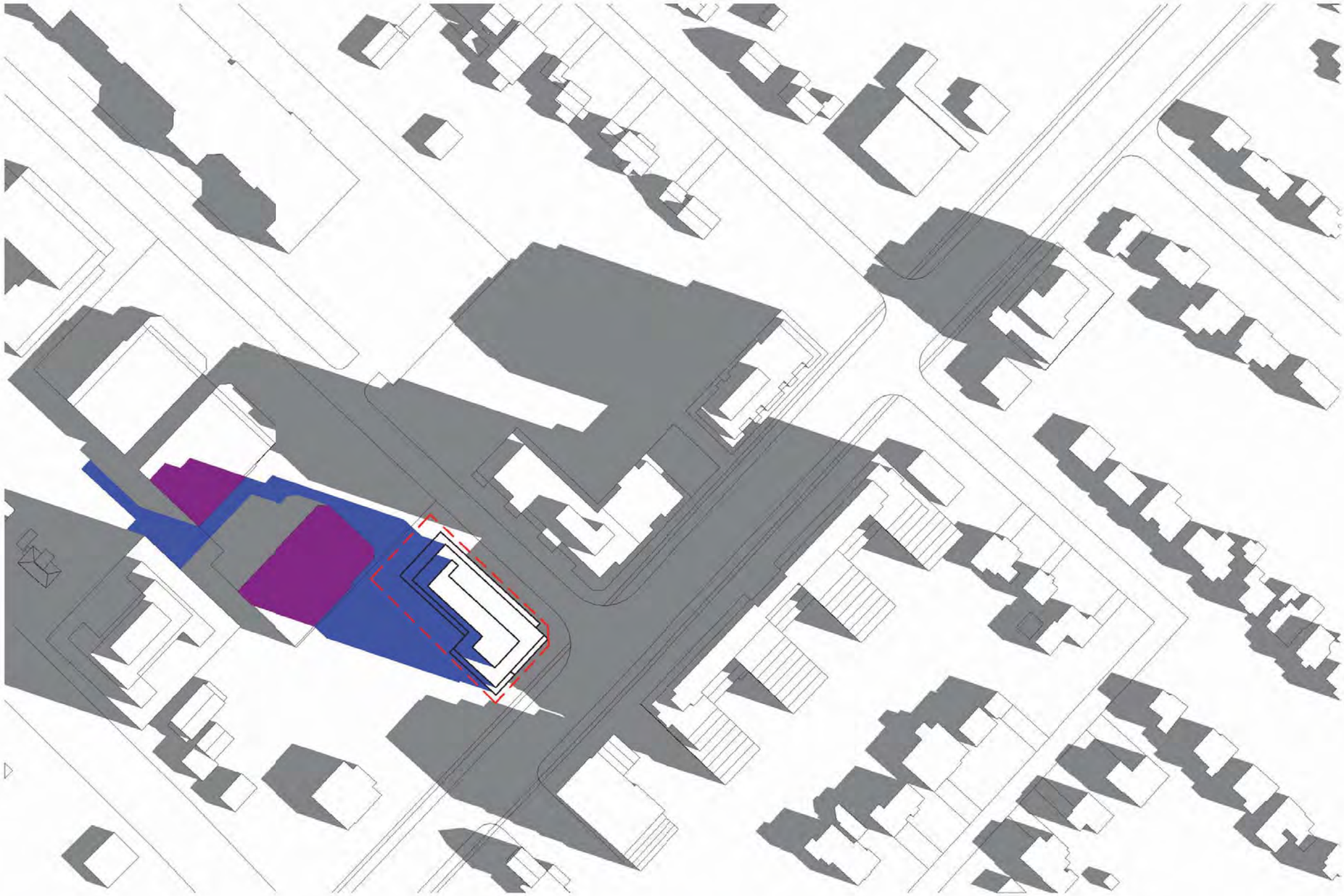
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

JUNE 21 - 7:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

SEPTEMBER 21 - 9:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

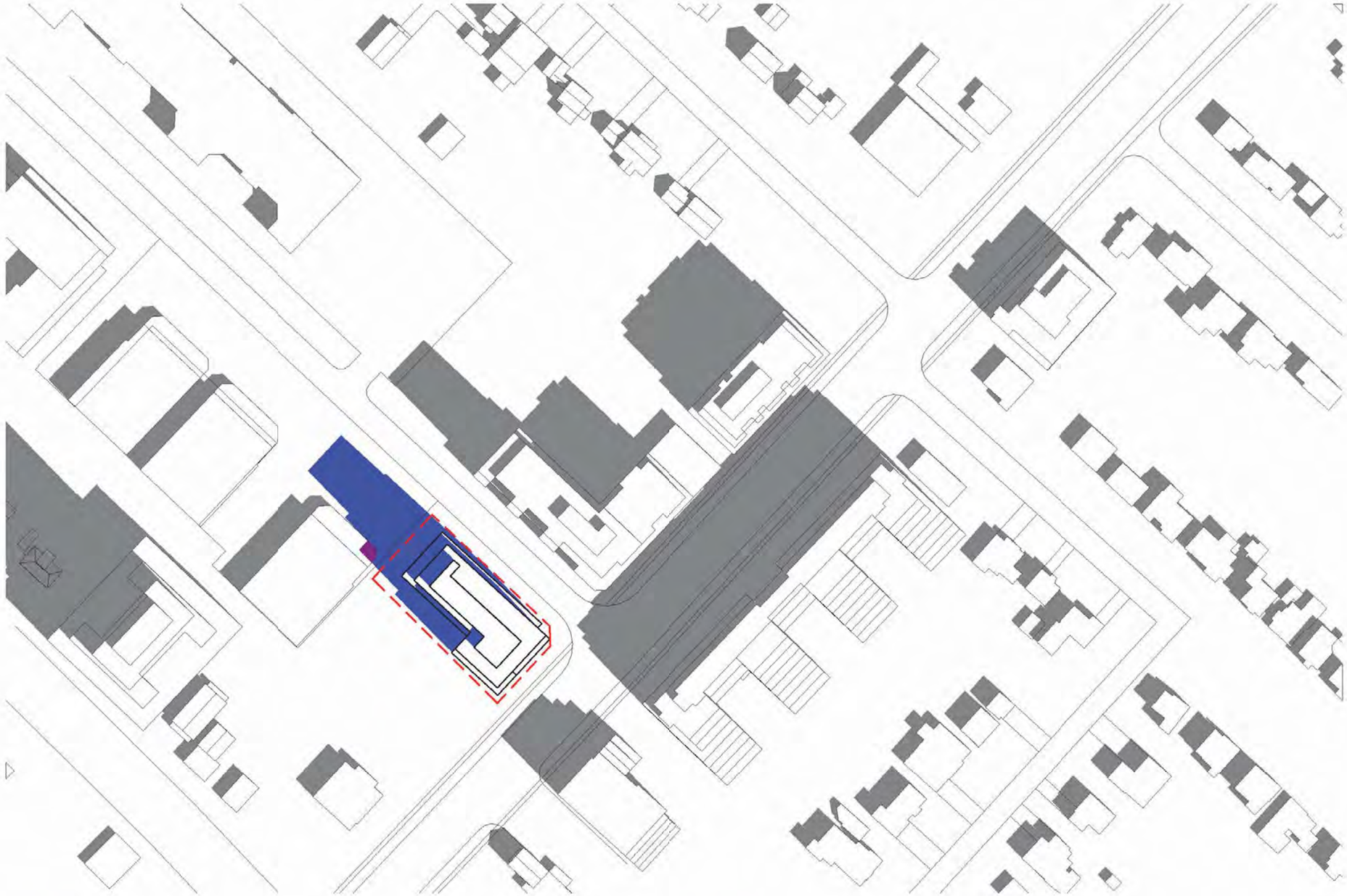
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

SEPTEMBER 21 - 10:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

SEPTEMBER 21 - 11:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

SEPTEMBER 21 - 12:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

SEPTEMBER 21 - 1:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

SEPTEMBER 21 - 2:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

SEPTEMBER 21 - 3:00PM

0m 50m 100m 200m 500m

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NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

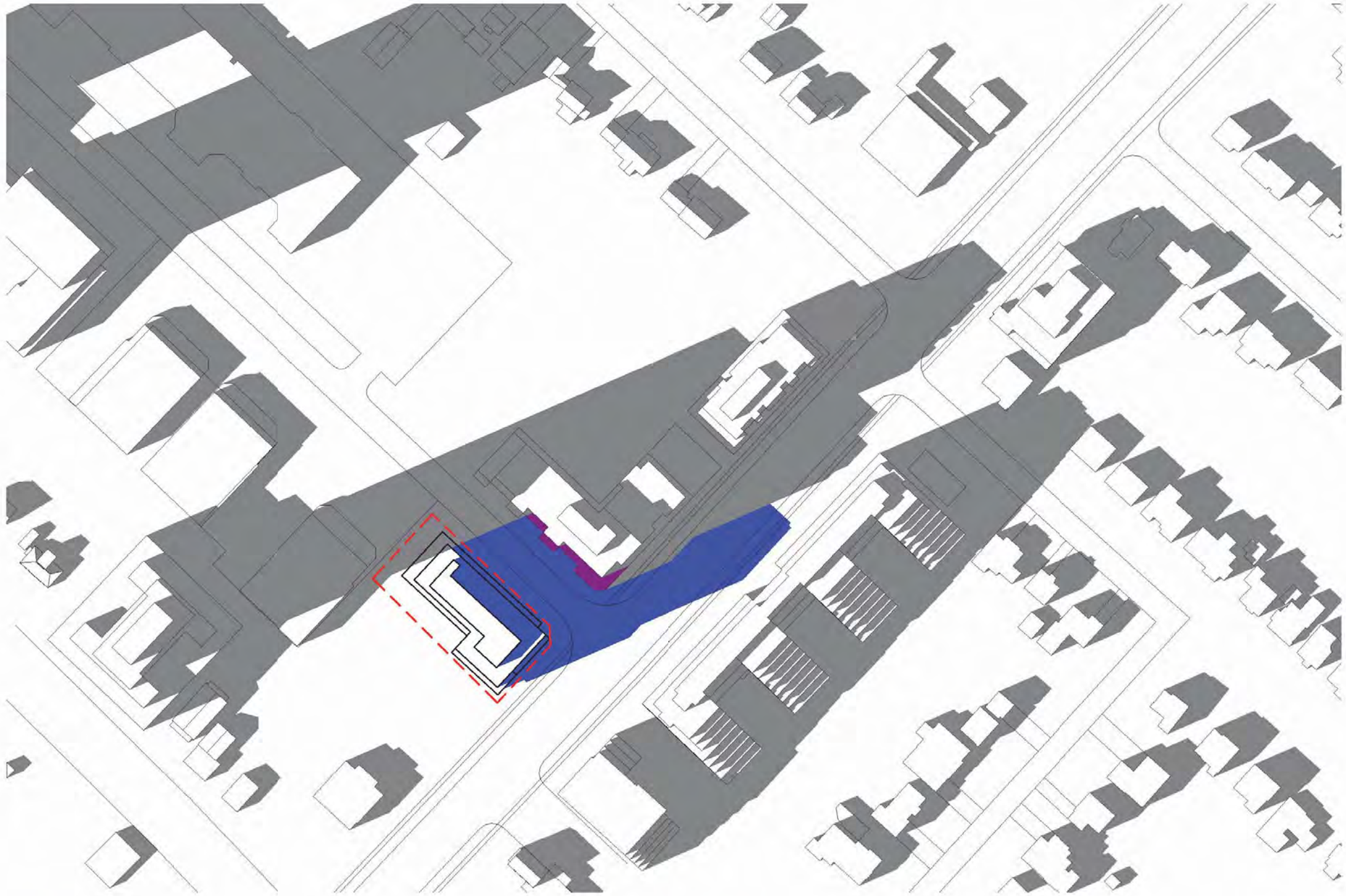
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

SEPTEMBER 21 - 4:00PM

0m 50m 100m 200m 500m

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NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

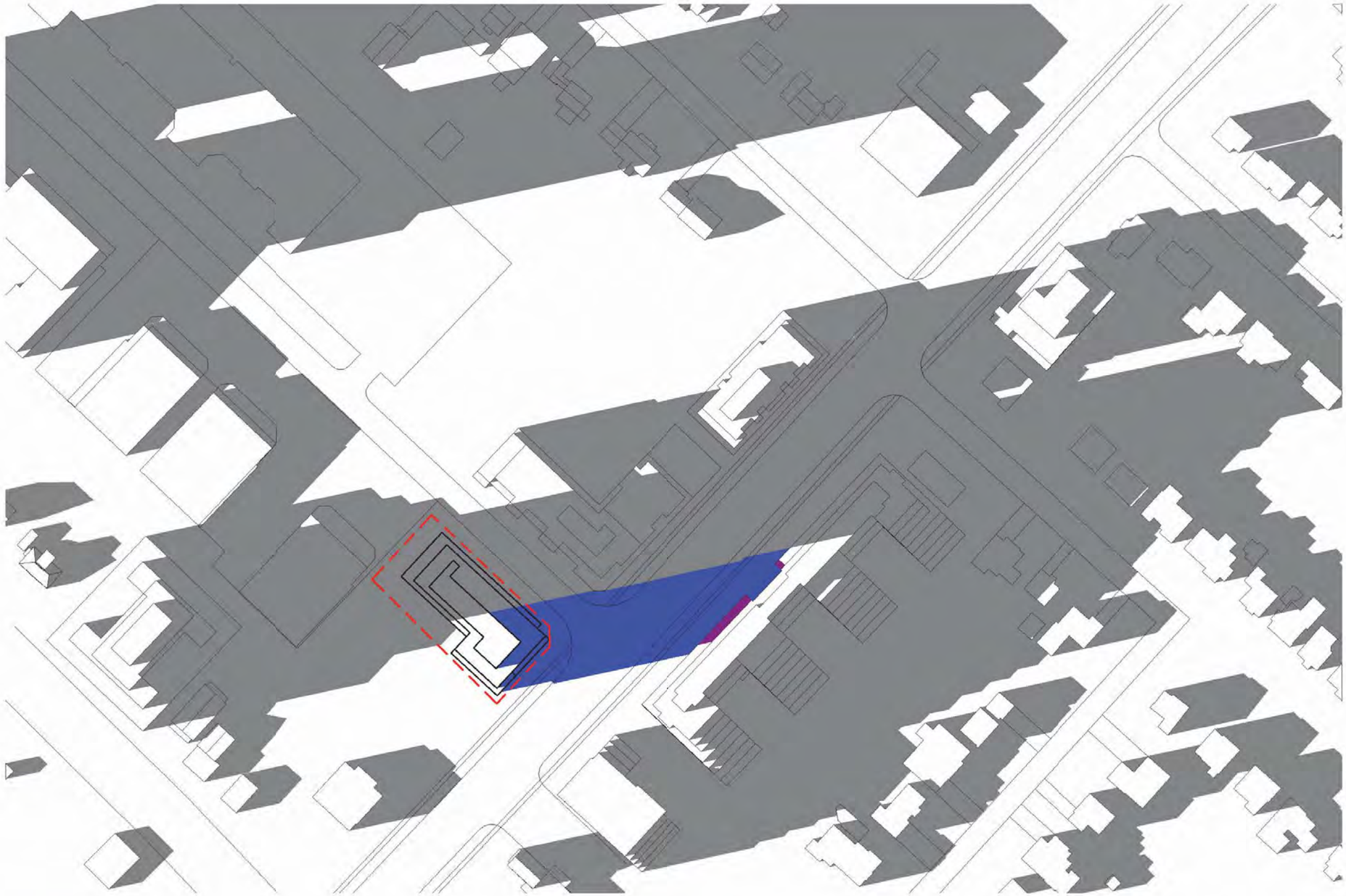
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

SEPTEMBER 21 - 5:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

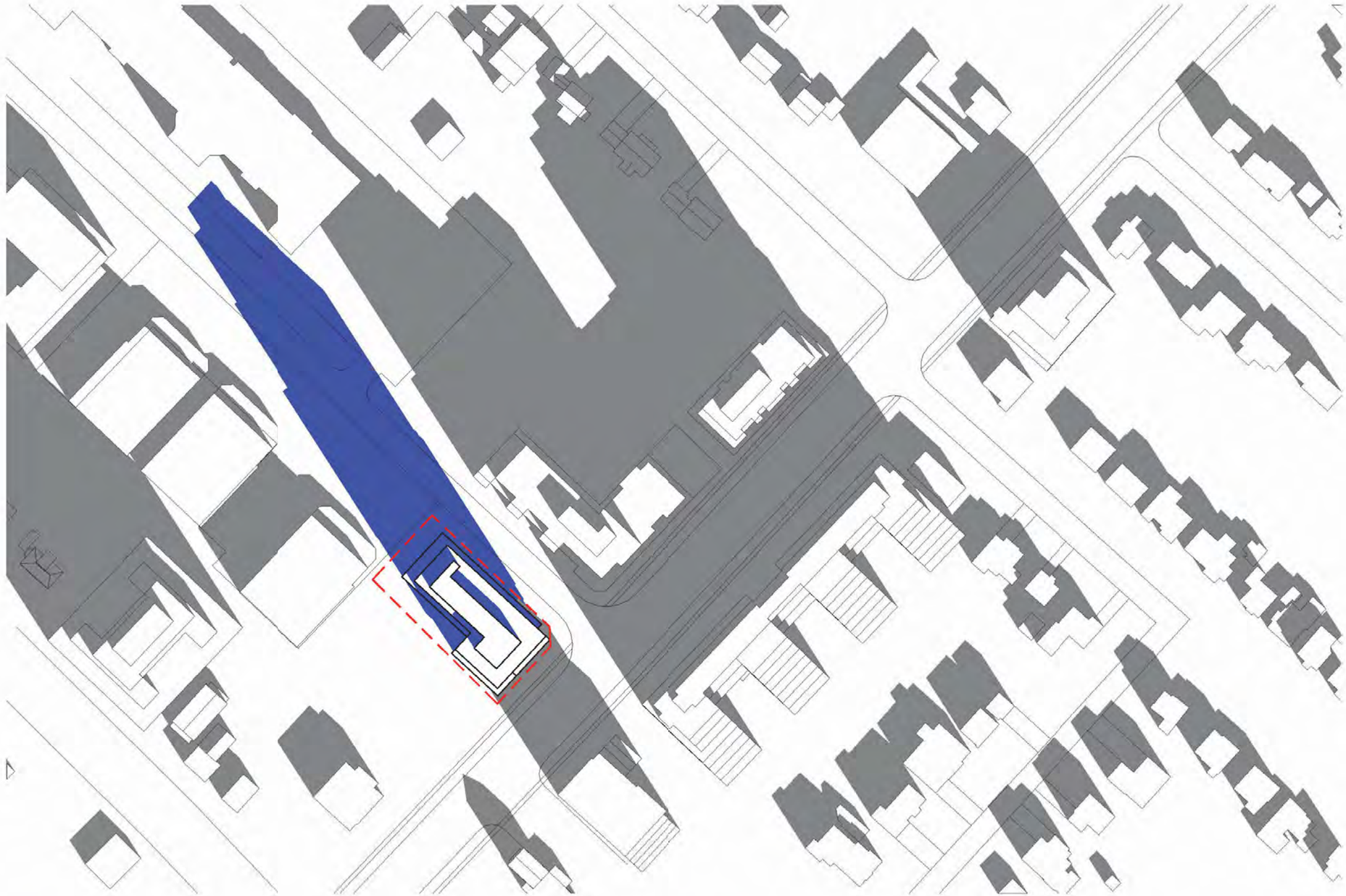
SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

SEPTEMBER 21 - 6:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

DECEMBER 21 - 11:00AM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

DECEMBER 21 - 12:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

DECEMBER 21 - 1:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

DECEMBER 21 - 2:00PM

0m 50m 100m 200m 500m

N



NET NEW SHADOWS CAST BY PROPOSED BUILDING ON GROUND SURFACES

NET NEW SHADOWS CAST BY PROPOSED BUILDING ON ROOF SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

DECEMBER 21 - 3:00PM

0m 50m 100m 200m 500m

N



09:00 AM

TOTAL OPPOSITE BOULEVARD AREA:
411 m^2

AREA EXPOSED TO SUNSHINE:
($AS_{(TEST)}$): 0 m^2

AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 411 m^2

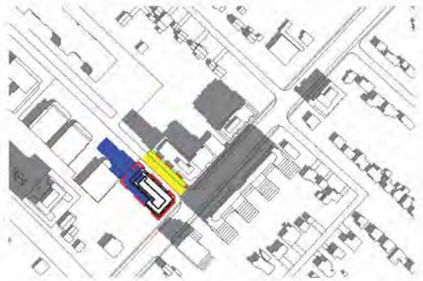


10:00 AM

TOTAL OPPOSITE BOULEVARD AREA:
411 m^2

AREA EXPOSED TO SUNSHINE:
($AS_{(TEST)}$): 6 m^2

AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 405 m^2

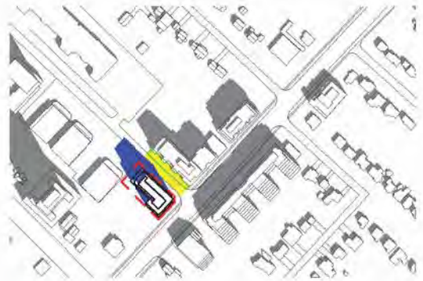


11:00 AM

TOTAL OPPOSITE BOULEVARD AREA:
411 m^2

AREA EXPOSED TO SUNSHINE:
($AS_{(TEST)}$): 303 m^2

AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 108 m^2



12:00 PM

TOTAL OPPOSITE BOULEVARD AREA:
411 m^2

AREA EXPOSED TO SUNSHINE:
($AS_{(TEST)}$): 376 m^2

AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 35 m^2



13:00 PM

TOTAL OPPOSITE BOULEVARD AREA:
411 m^2

AREA EXPOSED TO SUNSHINE:
($AS_{(TEST)}$): 208 m^2

AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 203 m^2

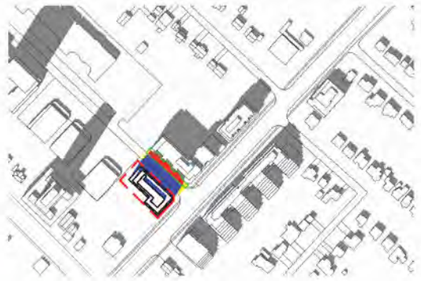


14:00 PM

TOTAL OPPOSITE BOULEVARD AREA:
411 m^2

AREA EXPOSED TO SUNSHINE:
($AS_{(TEST)}$): 92 m^2

AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 319 m^2



15:00 PM

TOTAL OPPOSITE BOULEVARD AREA:
411 m^2

AREA EXPOSED TO SUNSHINE:
($AS_{(TEST)}$): 92 m^2

AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 366 m^2



16:00 PM

TOTAL OPPOSITE BOULEVARD AREA:
411 m^2

AREA EXPOSED TO SUNSHINE:
($AS_{(TEST)}$): 60 m^2

AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 351 m^2

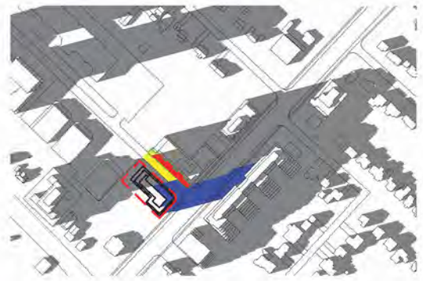


17:00 PM

TOTAL OPPOSITE BOULEVARD AREA:
411 m^2

AREA EXPOSED TO SUNSHINE:
($AS_{(TEST)}$): 4 m^2

AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 407 m^2



18:00 PM

TOTAL OPPOSITE BOULEVARD AREA:
411 m^2

AREA EXPOSED TO SUNSHINE:
($AS_{(TEST)}$): 47 m^2

AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 364 m^2

KFA architects + planners inc.

N

0m 50m 100m 200m 500m

MARCH 21ST- SIDEWALK SHADOWS

PROJECT NO:	21024	SCALE:	As indicated
DATE:	2025-01-20	DRAWN BY:	AC

DRAWING NO:

SS38

SUN ACCESS FACTOR CALCULATIONS

PUBLIC REALM AND SIDEWALKS

1. Total Area of opposite boulevard (A_T) = 411 m^2

2. Areas exposed to sunshine at each hourly test time ($AS_{(test)}$):

   09:00 ($AS_{(test\text{-}09:00)}$) = 0 m^2
   10:00 ($AS_{(test\text{-}10:00)}$) = 6 m^2
   11:00 ($AS_{(test\text{-}11:00)}$) = 303 m^2
   12:00 ($AS_{(test\text{-}12:00)}$) = 376 m^2
   13:00 ($AS_{(test\text{-}13:00)}$) = 208 m^2
   14:00 ($AS_{(test\text{-}14:00)}$) = 92 m^2
   15:00 ($AS_{(test\text{-}15:00)}$) = 45 m^2
   16:00 ($AS_{(test\text{-}16:00)}$) = 60 m^2
   17:00 ($AS_{(test\text{-}17:00)}$) = 4 m^2
   18:00 ($AS_{(test\text{-}18:00)}$) = 47 m^2
   Number of test times = 10

3. The averages for the nine one-hour intervals ($AS_{(interval)}$):

   09:00-10:00 ($AS_{(interval\text{-}09:00\text{-}10:00)}$) = (0 m^2 + 6 m^2) ÷ 2 = 3 m^2
   10:00-11:00 ($AS_{(interval\text{-}09:00\text{-}10:00)}$) = (6 m^2 + 303 m^2) ÷ 2 = 3 m^2
   11:00-12:00 ($AS_{(interval\text{-}09:00\text{-}10:00)}$) = (303 m^2 + 376 m^2) ÷ 2 = 340 m^2
   12:00-13:00 ($AS_{(interval\text{-}09:00\text{-}10:00)}$) = (376 m^2 + 208 m^2) ÷ 2 = 292 m^2
   13:00-14:00 ($AS_{(interval\text{-}09:00\text{-}10:00)}$) = (208 m^2 + 92 m^2) ÷ 2 = 150 m^2
   14:00-15:00 ($AS_{(interval\text{-}09:00\text{-}10:00)}$) = (92 m^2 + 45 m^2) ÷ 2 = 69 m^2
   15:00-16:00 ($AS_{(interval\text{-}09:00\text{-}10:00)}$) = (45 m^2 + 60 m^2) ÷ 2 = 53 m^2
   16:00-17:00 ($AS_{(interval\text{-}09:00\text{-}10:00)}$) = (60 m^2 + 4 m^2) ÷ 2 = 32 m^2
   17:00-18:00 ($AS_{(interval\text{-}09:00\text{-}10:00)}$) = (4 m^2 + 47 m^2) ÷ 2 = 26 m^2
   Number of test intervals = 9
   Sum of ($AS_{(interval)}$) = 968 m^2

4. The overall average area in sunshine ($AS_{(average)}$) = [sum of ($AS_{(interval)}$) ÷ [no. of Intervals]
   = 968 m^2 ÷ 9
   = 108 m^2

5. SAF = ($AS_{(average)}$) ÷ (A_T)
   = 108 m^2 ÷ 411 m^2
   = 0.26