

WEST VILLAGE LANDS | SHADOW STUDY
2017.08.25



JUNE 21 07:07



JUNE 21 07:20

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING



JUNE 21 08:20



JUNE 21 09:20

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING



JUNE 21 10:20



JUNE 21 11:20

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING



JUNE 21 12:20



JUNE 21 13:20

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING

Giannone Petricone Associates



JUNE 21 14:20



JUNE 21 15:20

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING



JUNE 21 16:20



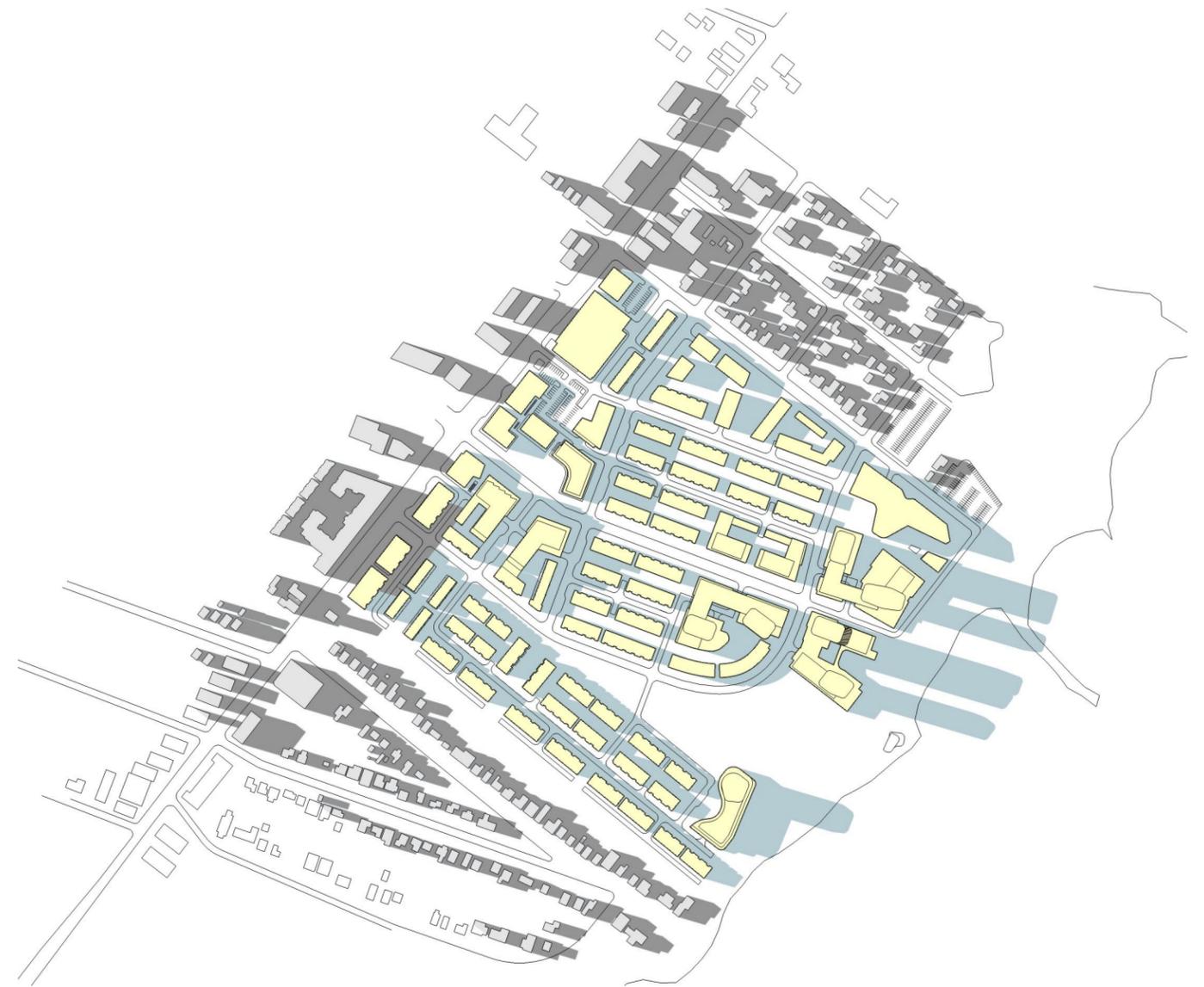
JUNE 21 17:20

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING

Giannone Petricone Associates

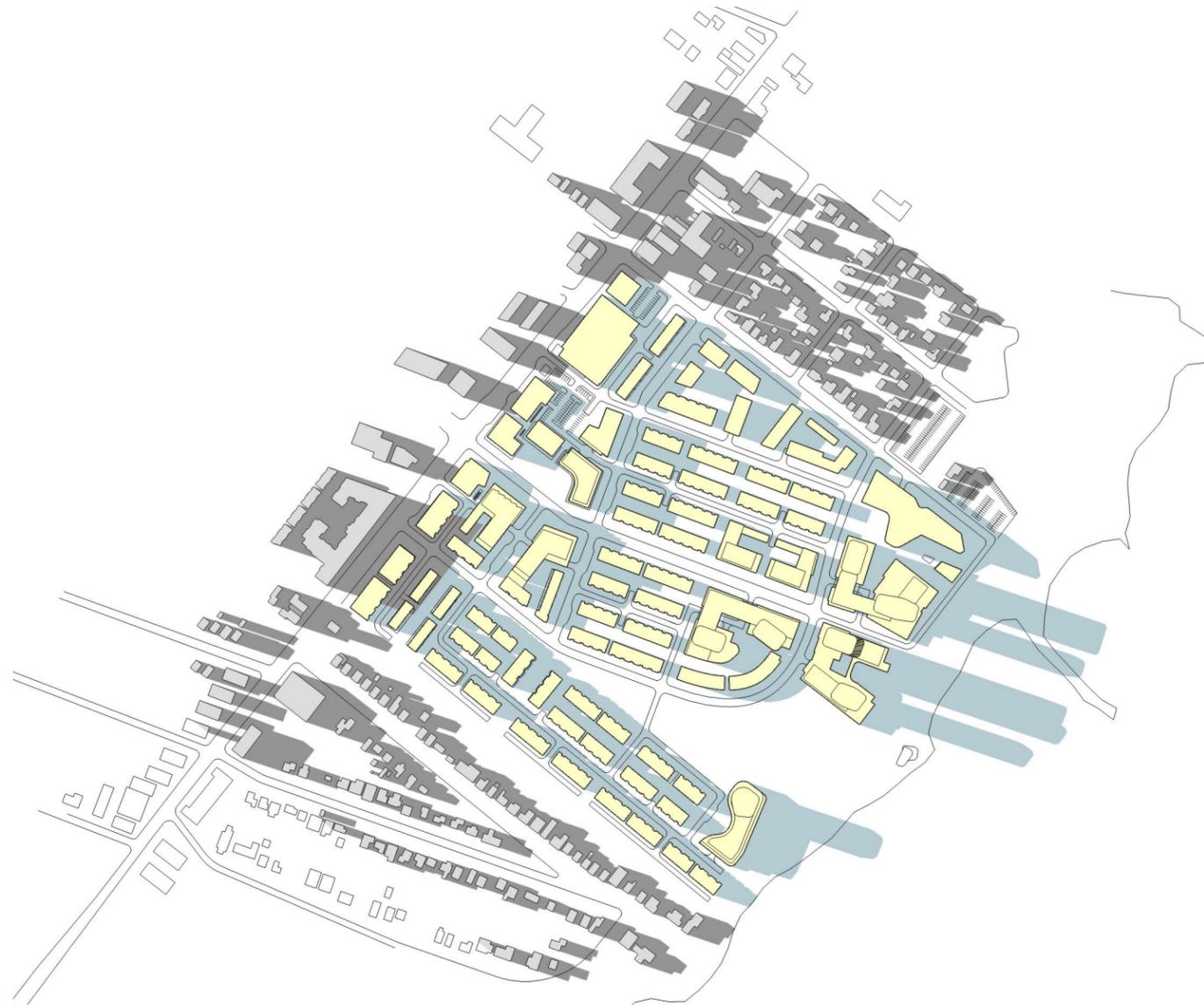


JUNE 21 18:20



JUNE 21 19:20

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING



JUNE 21 19:33



Giannone Petricone Associates



SEPT 21 08:35



SEPT 21 09:12

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING

Giannone Petricone Associates



SEPT 21 10:12



SEPT 21 11:12

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING



SEPT 21 12:12



SEPT 21 13:12

LEGEND

 CONTEXT MASSING SHADOW	 PROPOSED MASSING SHADOW	 PROPOSED MASSING
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Giannone Petricone Associates



SEPT 21 14:12



SEPT 21 15:12

LEGEND

 CONTEXT MASSING SHADOW	 PROPOSED MASSING SHADOW	 PROPOSED MASSING
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Giannone Petricone Associates



SEPT 21 16:12



SEPT 21 17:12

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING



SEPT 21 17:48

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING

Giannone Petricone Associates



DEC 21 09:19



DEC 21 10:17

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING



DEC 21 11:17



DEC 21 12:17

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING



DEC 21 13:17



DEC 21 14:17

LEGEND					
	CONTEXT MASSING SHADOW		PROPOSED MASSING SHADOW		PROPOSED MASSING



DEC 21 15:15



Purpose of the Shadow Study

A Shadow Study is required in support of this development application. Mississauga's terms of reference for Shadow Studies require development proponents to meet five criteria for the dates of June 21, September 21, and December 21. Given the preliminary stage in the development process, this Shadow Study provides general findings that will be refined as the process progresses into the detailed design phase.

Criteria 1: Ensure adequate sunlight on residential private outdoor amenity spaces

This criterion is met if there is shadow impact for no more than two consecutive hourly test times within the space between the exterior wall of the dwelling that abuts the amenity space and the line of impact assessment on June 21 and September 21. Generally, new shadows produced by the proposed built form preserves at least two hours of direct sunlight on residential private outdoor amenity spaces.

Criteria 2: Ensure adequate sunlight on communal outdoor amenity areas including, children's play areas, school yards, tot lots, and park features such as sandboxes, wading pools etc., and outdoor amenity areas used by seniors and those associated with commercial and employment areas during spring, summer, fall and winter.

This criterion, which applies to public amenity areas that are part of the proposed development, is met if the sun access factor is at least 50% or 0.5 on June 21, September 21, and December 21. Given the early stage of design, it is not possible to calculate whether or not this criterion is satisfied. With that said, the buildings have been massed and located strategically to avoid undue shadow impacts on these spaces.

Criteria 3: Ensure adequate sunlight on the public realm including sidewalks, open spaces, parks and plazas to maximize their use during the shoulder seasons (spring and fall).

This criterion is met if there is no incremental shade from the proposed development at 9:12 a.m., 10:12a.m. and 11:12 a.m., and at 3:12 p.m., 4:12 p.m. and 5:12 p.m. on low and medium density residential streets; at 12:12 p.m., 1:12 p.m. and 2:12 p.m., and three consecutive times either 9:12 a.m., 10:12 a.m. and 11:12 a.m. or 3:12 p.m., 4:12 p.m. and 5:12 p.m. on mixed use, commercial, employment, and high density residential streets; and provides a sun access factor of at least 50% on public open spaces, parks and plazas on September 21. While it is too early to say definitively, the preliminary shadow study diagrams demonstrate that the new public park and lands located to the south of the site remain more than 50% sunlit at all hours on June 21 and September 21. In fact, these lands are nearly 100% sunlit during the test period for both days. Additionally, the Lakeshore Road Boulevard opposite the site remains sunlit through all hours of the day on September 21.

Criteria 4: Ensure adequate sunlight on turf and flower gardens in public parks.

This criterion is met if full sun is provided on any 7 test times on September 21, from 1.5 hours after sunrise to 1.5 hours before sunset. The landscape design is too preliminary at this point to determine whether or not this criterion is satisfied.

Criteria 5: Ensure adequate sunlight on building faces to allow for the possibility of using solar energy.

This criterion is met if there is shadow impact for no more than two consecutive hourly test times in the "No Impact Zone" i.e. the space between the front, rear and exterior side walls of the adjacent low-rise residential buildings and the respective lines of impact assessment. At this preliminary stage of design, the Shadow Study diagrams demonstrate that the proposed towers do not shadow individual low-rise buildings for more than 1 hour.

SHADOW STUDY ANALYSIS DONE BY URBAN STRATEGIES INC.