Urban Design Brief

1860-1900 Appleby Line

Burlington, Ontario

PREPARED BY IBI GROUP
on behalf of
LJM DEVELOPMENTS



CONCEPTUAL MASSING
RAW ARCHITECTURE '21

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1.0 PROJECT SUMMARY

The proposal for 1860-1900 Appleby Line seeks planning permissions which would allow for multiple high density mixed-use buildings (up to 20 storeys) on the northerly half of the subject lands. More specifically, a phased approach is proposed which would see three phases eventually occupy the full frontage of Ironstone Drive between Heron Way and Appleby Line with respective development. The intent is to establish Official Plan and Zoning permissions for this complete area which would permit the proposed mixed-use development, with an initial focus on the Phase 1 development permissions.

The subject lands currently feature two multi-tenant commercial plazas, which are proposed to remain during and beyond the construction of the 18-storey mixed-use Phase 1 development. Phase 1 would be constructed on a vacant portion of the site. In the subsequent phases, the two existing adjacent plaza buildings would be demolished and replaced with mixed-use developments up to 16-storeys and similar to Phase 1. The plaza buildings on the south of the plaza would remain throughout.

This report aims to illustrate the proposal and its arrangement of urban design components including but not limited to phasing approach, site composition and preliminary building designs, circulation, parking, landscaping, accessibility, and safety. Professional analysis on the anticipated compatibility and level of integration within the existing urban context will conclude the review.



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2.0 CONTEXT

2.1 Site

The project site is situated at 1860-1900 Appleby Line (at Ironstone Drive) within the north portion of a multi-tenant commercial plaza. The surrounding context is a mix of existing urban development, comprised of retail commercial centres and mid to high-rise mixed-use and residential properties. Also nearby is a wealth of community amenities including neighbourhood parks, trails and public transit. The lands are flanked by the aforementioned streets to the north and west, Heron Way to the south and an existing plaza to the east.

The site possesses minimal existing vegetation and is generally flat in topography. Existing municipal sidewalks are present on both frontages of Appleby Line and Ironstone Drive.

Opposite the site across Appleby Line are mixed-use apartments up to 17-storeys with ground floor retail and are a suitable precedent as far as similar developments. A recurring condition in the area is where buildings are seen placed at the street with parking located towards the site's interior, where increasing density of built form along Appleby Line is beginning to define the streetscape

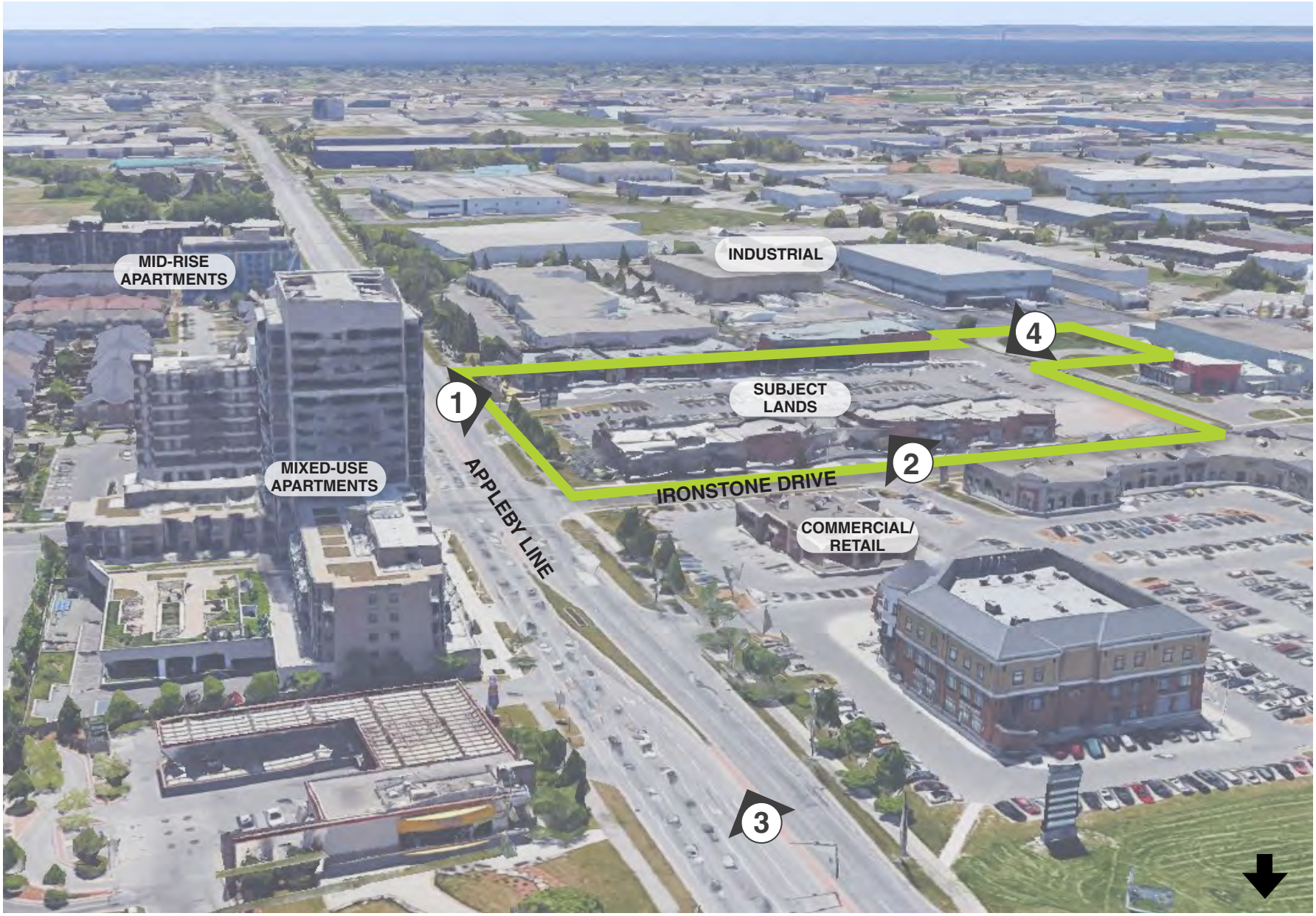




Community Context Plan



Site Context Plan Looking North



Site Context Plan Looking South



1 - VIEW OF EXISTING DEVELOPMENT ON SUBJECT LANDS, FROM APPLEBY LINE.



2 - VIEW OF EXISTING DEVELOPMENT ON SUBJECT LANDS, FROM IRONSIDE RD.



3 - VIEW OF APPLEBY LINE STREETSCAPE AND EXISTING 17-STOREY MIXED-USE DEVELOPMENT, LOOKING SOUTHEAST



4 - VIEW OF PLAZA FROM HERON WAY, LOOKING NORTH

3.0 POLICY & GUIDES

3.1 Burlington Official Plan (BOP)

Burlington's new Official Plan was adopted by City Council on April 26, 2018 and approved (however it remains under appeal), with modifications, by Halton Region on Nov. 30, 2020. It is used in this brief as it represents Councils intent for development and urban design policies

The purpose of the Plan is to outline a long-term vision of the community and quality of life for Burlington residents through statements of objectives and policies. It is prepared with input from the public and helps to ensure future planning and development will meet the specific needs of the community. Pertinent sections of the BOP are highlighted below as they apply to this proposal.

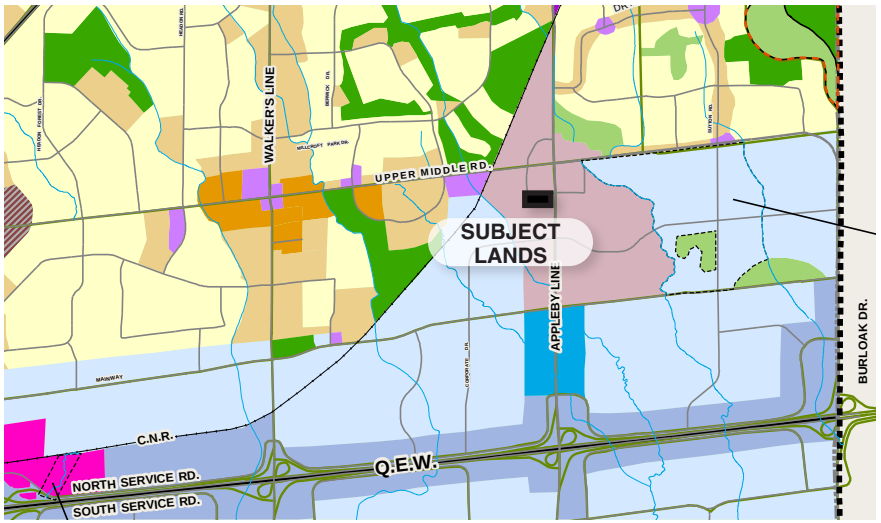


Figure 1 BOP - Land Use, Schedule B

Chapter 3 - Complete Communities

3.1 - Housing

Housing is fundamental to the social, economic and physical well-being of the city's residents and neighbourhoods. The City will promote an appropriate and adequate range of housing choices by type, tenure and affordability level, to accommodate the needs of all city residents and workers, regardless of age, income level, physical, sensory and mental health and ability, culture, level of support services, household structure and family composition.

- The proposal offers an increase in housing options within the multi-use intensification area in the City, providing urban residential options that subscribe to a modern way of living where work, shopping and transit are all conveniently located.

3.3 - Parks, Recreation and Open Space

Parks and open space are an essential component of a healthy and sustainable city. Parks, open space and recreational opportunities contribute to a healthier environment and healthier residents, improving quality of life, providing positive public health outcomes and creating a sense of belonging (BOP).

- The inclusion of Privately Owned Public Spaces

(POPS) within each proposed development phase illustrates the support for complete and healthy communities, providing quality outdoor amenity space for users to enjoy within a transit-oriented urban setting. The inclusion also softens the division between public and private space. Spaces such as these contribute greatly to placemaking and achieving a sense of belonging, which is noted as desirable in the BOP.

Chapter 4 - Environment and Sustainability

4.3 - Urban Forestry

The urban forest provides various benefits and services to the city, including the reduction of air pollution, water attenuation, moderation of the urban heat island effect, carbon sequestration, shade, habitat for wildlife, neighbourhood character and health benefits.

4.3.1 a) ...ensure that opportunities for the protection and enhancement of trees both within and outside of the City's Natural Heritage System are fully considered through the planning process and capital projects.

- The proposed design offers a significant enhancement in the provision of trees from what currently exists on site. The enhanced landscape with various trees will contribute positively to the urban canopy and microclimate for outdoor spaces on site.

Chapter 7 - Design Excellence

7.1 - General

The policies of this chapter relate to the design of the city's future and existing communities, public realm, and buildings. They emphasize land use compatibility, a high quality built environment, and innovative design in public projects and private developments. A high standard of design and more attention to the relationships between the public and private realms in the development of communities, buildings, streets, urban parks and open spaces are expected.

- The current proposal enhances the urban condition in this area by proposing a development that will generate a high quality built environment on many levels and in a way that is compatible with the growing community. It intends to support healthy, active living, provide increased housing options, and facilitate a live-work-play option for prospective residents. The current proposal, in both phased and ultimate conditions should be expected to enhance the quality of the municipal streetscapes, complement the existing context, provide better and more connections, and contribute to a healthier environment.

7.2 - The Public Realm

Beautiful, functional, safe and accessible streets, parks, open spaces and public facilities draw people together and

provide a setting for daily interactions, community events and activities that are part of a unique experience for all community members. To do so requires both attention to design in the creation of a remarkable public realm, and enhancement of the connectivity, sustainability and aesthetics of streetscapes throughout the city

- The current concept is a large step forward from what exists in terms of providing for a quality and active public realm for this location. This includes not only the streetscapes along Ironstone Drive and Appleby Line, but also the internal network of circulation and POPS spaces, which could serve as a place of refuge for residents and visitors alike.
- Enhanced landscaping is incorporated to increase the quality of the ground level throughout the site and to assist in screening and buffering the building and its internal elements from public view and adjacent lands where applicable.

7.3 - Urban Design and Built Form

Buildings through their design and placement help enhance the physical character of an area and the sense of belonging in the community. Their built form characteristics, siting, access, servicing and parking arrangements can positively contribute to the success of the public realm as each building, collectively with other buildings in an area, can complement and enhance its site and context, within the street, the block or the neighbourhood.

- The built form of the three development phases respond to the site's context in a twofold manner: firstly, in relation to the streets and outward conditions, and secondly, towards themselves as they each relate to the next in potentially sequential order.

  Consistent with similar development patterns in the area, the built form is placed at the streets with a defined podium and stepped back tower. This highlights a pedestrian friendly scale along the street which defines a pedestrian realm. Ground floor office and retail with direct access from the street will help to activate the streetscapes, which will be enhanced further by quality landscaping.

  The rear, or internal interfaces of the buildings have received equal attention, whereby the inclusion of POPS and circulation routes provide an enhanced and pedestrian-supportive realm which is attractive and where programmed activities can occur.

7.4 - Sustainable Design

Sustainable building and development uses an integrated design approach to balance environmental, economic and social considerations in the design, construction and operation of buildings and sites. Sustainable design helps to reduce infrastructure costs and demands, environmental impacts, greenhouse gas emissions and long term building operating costs, and contributes to the City's goal of being a prosperous, livable and healthy community. The City

will promote sustainable design approaches through the implementation of the Sustainable Building and Development Guidelines.

- Given the state of development, finer items such as sustainable targets or strategies have yet to be defined but will be explored further to support the goals and objectives of the BOP.

Chapter 8 - Land Use Policies-Urban Area

8.1 - Mixed-Use Intensification Areas

Lands identified as Mixed Use Intensification Areas on Schedule B: Urban Structure, of this Plan, are divided into Urban Centres, MTSA Special Planning Areas, and Mixed Use Nodes and Intensification Corridors. These areas will achieve a multitude of planning objectives by combining a broad range of employment, shopping, public service facilities, residential and complementary uses such as open space, institutional, and cultural uses. People will be able to live, work, and shop in the same area, giving them an opportunity to depend less on their automobiles, and create distinguishable places along transit routes that are animated, attractive and safe.

- The proposal supports this new-urbanism style approach, whereby increased housing options with access to transit coupled with providing a mix of retail and open spaces would help facilitate healthy and active urban living. The project supports a true live-work-play type mentality.

  Ample parking is also provided, however residents will be able to rely less on their personal vehicles given the convenient access to a range of nearby amenities and public transportation.

3.2 Tall Building Guidelines (TBG)

Burlington's Tall Building Guidelines state that: When carefully designed and located, tall buildings become a distinct and defining component of a city's character, forging a memorable skyline and establishing city-wide landmarks. As part of a broader growth framework and intensification strategy, tall buildings support healthy and sustainable cities by providing a critical mass of people in close proximity to jobs, transit and living spaces.

The following key sample guides from the TBG apply to and are achieved by the proposal (non-exhaustive highlights):

2.1 - Podium Location

a. The podium shall be located to frame the street. On corner lots, the podium shall be located to frame both streets.
d. On sites with multiple towers, mid-block pedestrian connections should be provided through the podium to enhance permeability, break-up the

podium, and create additional corner conditions.

2.2 - Podium Height and Massing

b. Where no established street wall exists, the minimum height of the podium shall be 10.5 metres (3-storeys) to frame the streetscape and reinforce a human-scale.
d. The floor-to-ceiling height of the ground floor should be a minimum of 4.5 metres to accommodate internal servicing and loading, and active commercial uses (where permitted).

2.4 - Podium Design and Articulation

d. Portions of the podium roof that are not occupied by a tower should be used as outdoor amenity space to provide casual surveillance and interesting views from the street.
i. Within a retail podium, the ground floor shall be predominantly clear-glazed to provide visual connections between public and private realm and enhance safety. Similarly, public elements of a residential podium (i.e. lobby, amenity space) shall be predominantly clear-glazed.
k. Mixed-use buildings with retail at grade should incorporate vestibules, frequent building entrances, canopies and structural overhangs to provide weather protection for the length of the street.

2.5 - Site Design, Open Space and Streetscaping

a. Parking, servicing and loading shall be accommodated internally within the building podium and screened from the street.
c. Publicly-accessible privately owned open space, including courtyards, plazas, and parkettes should be encouraged where appropriate within tall building sites through applicable planning tools (i.e. Section 37 of the Planning Act).
e. Publicly-accessible privately owned open spaces should be used to provide mid-block pedestrian connections through the site and create short block lengths (80-120 metres).

3.1 - Tower Location

a. Where multiple towers are proposed on a site, they shall be arranged to provide a gradual and appropriate transition in height to the adjacent established or planned context.
d. The tower should be stepped back at least 3 metres from the podium to differentiate between the building podium and tower, and to ensure usable outdoor amenity space (i.e. patios).

3.2 - Tower Height and Massing

a. The height of the tower, and its location on the building base, shall provide a gradual and

appropriate transition in height to help mitigate potential impacts on the adjacent established or planned context. Where multiple towers exist on a site, this transition shall be reflected across the entire site.

3.3 - Shadow/Sky Views

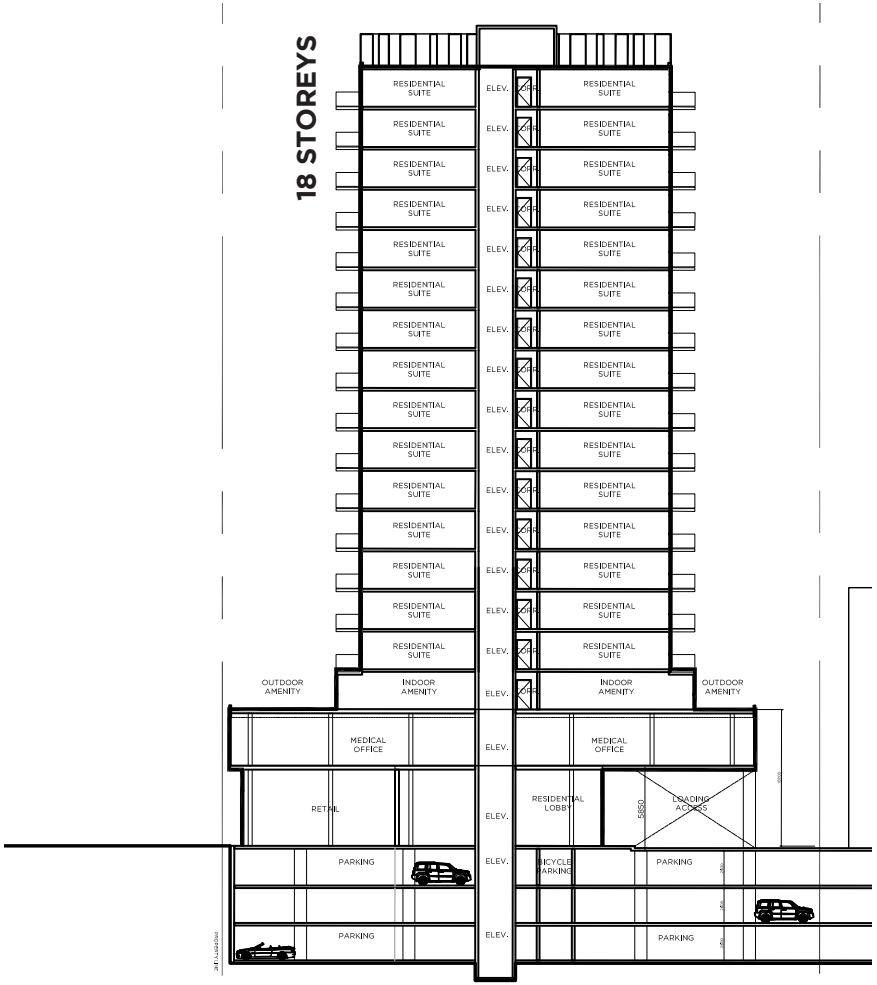
a. The design and placement of the tower shall be carefully considered to minimize the size of shadows on the opposite streetscape.

3.4 - Tower Design and Articulation

a. A variety of techniques shall be used to articulate the tower, both vertically and horizontally, to create visual interest and encourage unique designs.
e. Balconies are encouraged within the tower to provide amenity space and additional articulation. They may be inset or extruding, but should be a minimum of 1.5 metres to provide usable outdoor amenity space.

4.1 - Tower Design and Articulation

a. Design the upper floors of tall building to clearly distinguish the top of the building from the tower, to further reduce the building profile, and to achieve a distinct skyline. This may include stepbacks, material variations, and/or unique articulation.



CONCEPTUAL SECTION

4.0 DESIGN

General Overview

At this conceptual stage, the architectural design of the buildings are preliminary and the full impression of the articulation is largely undefined. However, a sense of the scale, form and impact on the urban setting in the area – the streetscapes, skyline impact, etc. –can be envisioned from the massing.

The Phase 1 development is the most developed, as shown in the image aside, where the character is beginning to evolve and will be the specific focus of the following design commentary.

Overall architectural expression

It is premature to comment on the articulation of the Phase 1 building, however the intent is fairly clear: support a quality, active pedestrian realm by providing a defined and pedestrian-scaled podium with retail, office, and enhanced outdoor spaces; and, to provide contextual sympathy through building orientation, composition and massing to respect such things as relative height transitions, views and shadowing.

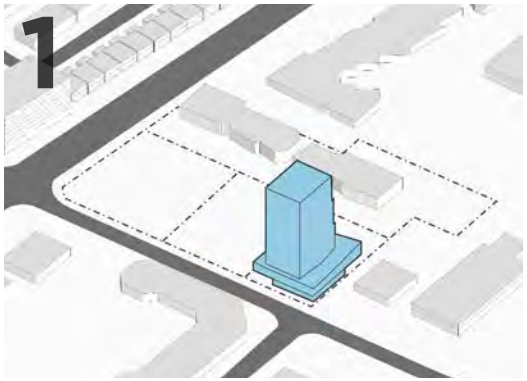
Phased Approach (OP permissions)

The proposed approach would first focus on the Phase 1, 18-storey development –the tallest of the three– on



Conceptual massing
RAW Architecture '21

the westerly portion of the site along Ironstone Drive. In future phases, 16-storey towers with ground level retail would continue this urban intensification towards Appleby Line and complete the frontage (graphic aside). Individual zoning permissions should be established through initial application and may be refined in subsequent proposals or applications.

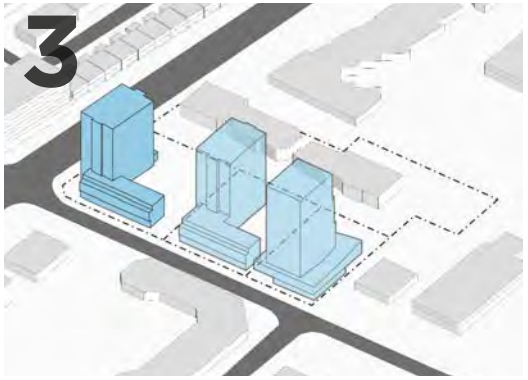


Building relationship to streetscape and adjacent properties

Relative Height, or a tower's height when compared to neighbouring towers or existing or planned surrounding context, is an important factor in tall building design. The siting of the building(s) addresses the public realm by creating a strong street presence. The built form has been designed and sited to be experienced primarily from the street and is massed and articulated to foster a comfortable ground level pedestrian scale.



A nearly three-storey podium at grade that will house office and retail grounds the building and makes an attractive outward presentation; it also provides a scale reflective of the existing plaza buildings, which will be an important consideration for its presence prior to the ultimate condition in particular.



Ground level retail and office space with direct access from the street will offer convenient access to-and-from the municipal sidewalk. Conversely, the primary entrances to the residential units is accessed from the rear of the building




IRONSTONE DRIVE

within the site in a more private manner. While placed close to the street in terms of site composition, there remains sufficient boulevard space along with the municipal sidewalks on the frontages, which facilitates opportunities for outdoor amenity areas, buffers from the roads, enhanced landscaping and barrier free circulation.

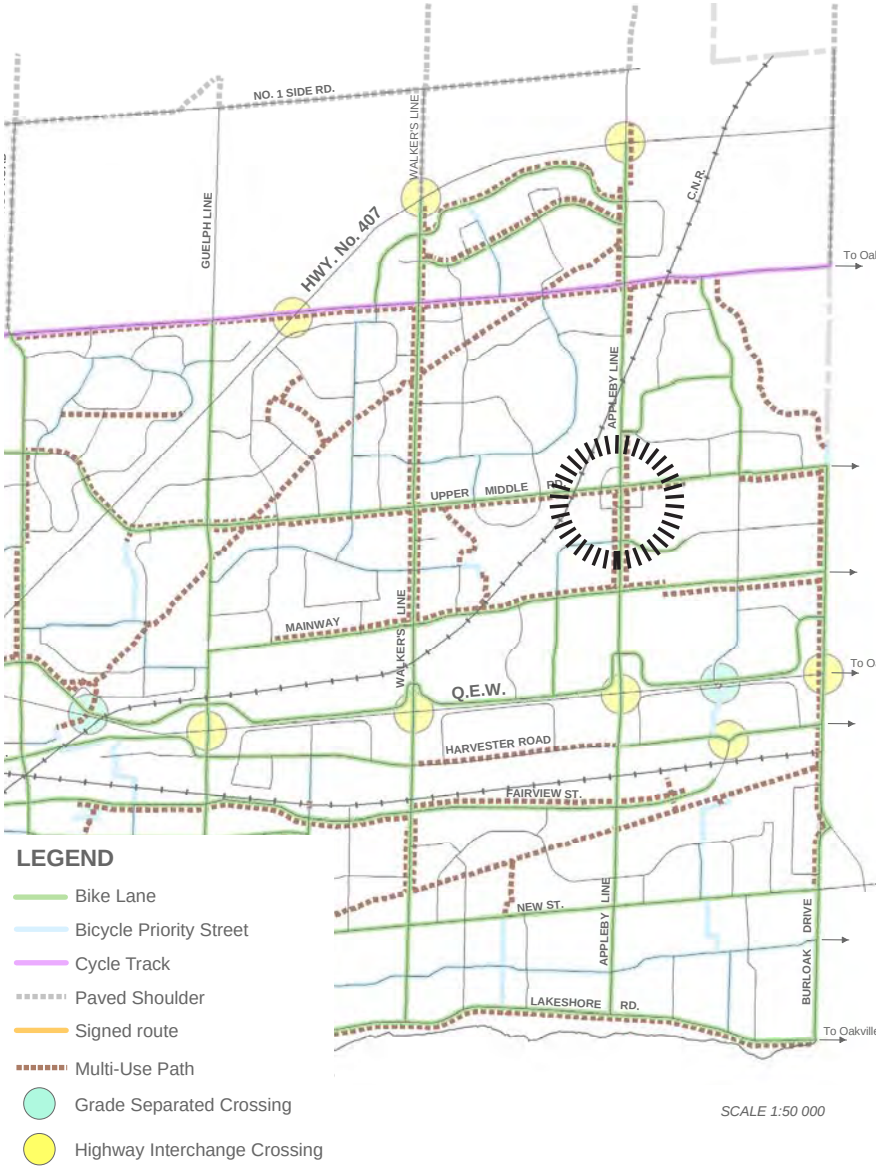
Pedestrian, cycling, and transit connections;

As per Schedule 1 Appendix A of the OP regarding long term transit service network planning, Appleby Line and Upper Middle Road are to provide Primary and Secondary Bus service, respectively. Moreover, future planned multi-use paths are planned for these streets, offering additional and convenient active transportation options.

Other features that ensure design excellence:

Architectural Continuity

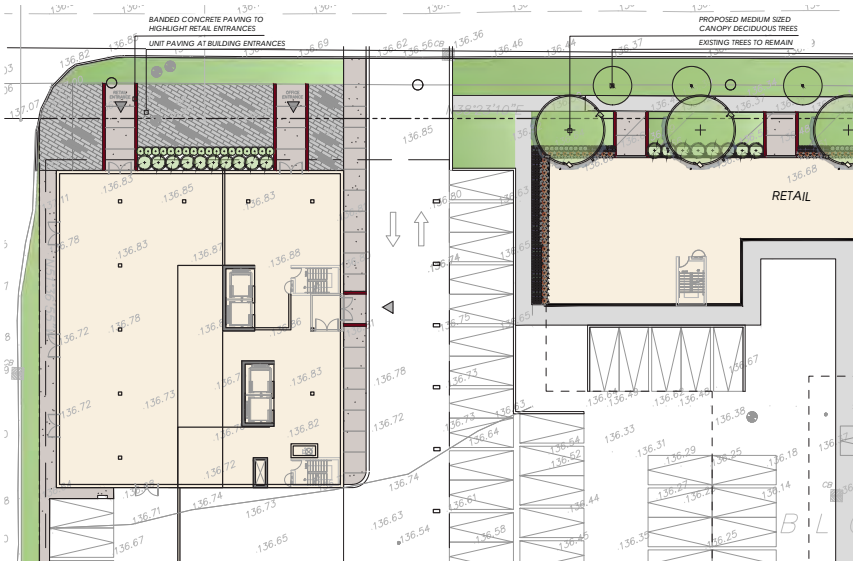
The building articulation is still preliminary, however the form and basic modeling is generally seen to be complimentary to contextually similar developments nearby, i.e. the overall form, siting, and relationship to the street is in line with the urban context, particularly the existing 17-storey mixed-use developments opposite Appleby Line. There does not appear to be a common or dominant architectural style on either streetscape, however, which affords the opportunity to present unique and potentially precedent-setting designs.



Landscape

The proposed site landscaping is conceptual and will be further refined as the site plan development progresses. The current concept will help enhance the streetscape, complement the building in an attractive manner, soften transitions between public and private space (including the POPS areas) and generally enhance the pedestrian environment. The landscape proposes a number of trees, which will also contribute to the urban canopy cover, as there is currently very little existing vegetation on site.

Pertaining to Phase 1 specifically, the landscape is fairly minor in scale and program, however when observed as part of the ultimate condition, the landscape will play a key role in tying together the streetscape character and overall public realm consistency for the streetscape block. What is currently a vacant site, the proposed site plan is a significant enhancement for the shared-plaza corner.



Accessibility and Safety Standards

The site arrangement and building positioning is generally supportive of pedestrian access and circulation to the street and throughout the site. Further refinement will be required as the plans develop to ensure standards are met at a technical level.

The conceptual landscape plan highlights direct access to municipal sidewalks on both Ironstone Drive and Appleby Line, whereby dedicated accessible paths of travel can be provided to the site's interior as well as principle entrances along the street frontage for all buildings. Within the site, the proposal generally supports Accessibility for Ontarians with Disabilities Act (AODA) principals, which are achieved through such things as barrier–free circulation routes and conveniently located accessible parking stalls.

The concept design can also be said to generally support the tenets of crime prevention through environmental design (CPTED) by having regard for such things as natural surveillance, clear sight lines, and visible and defined entrances. The high amount of glazing, particularly on the base level (concept rendering) will provide eyes on the street and assist with territorial reinforcement.

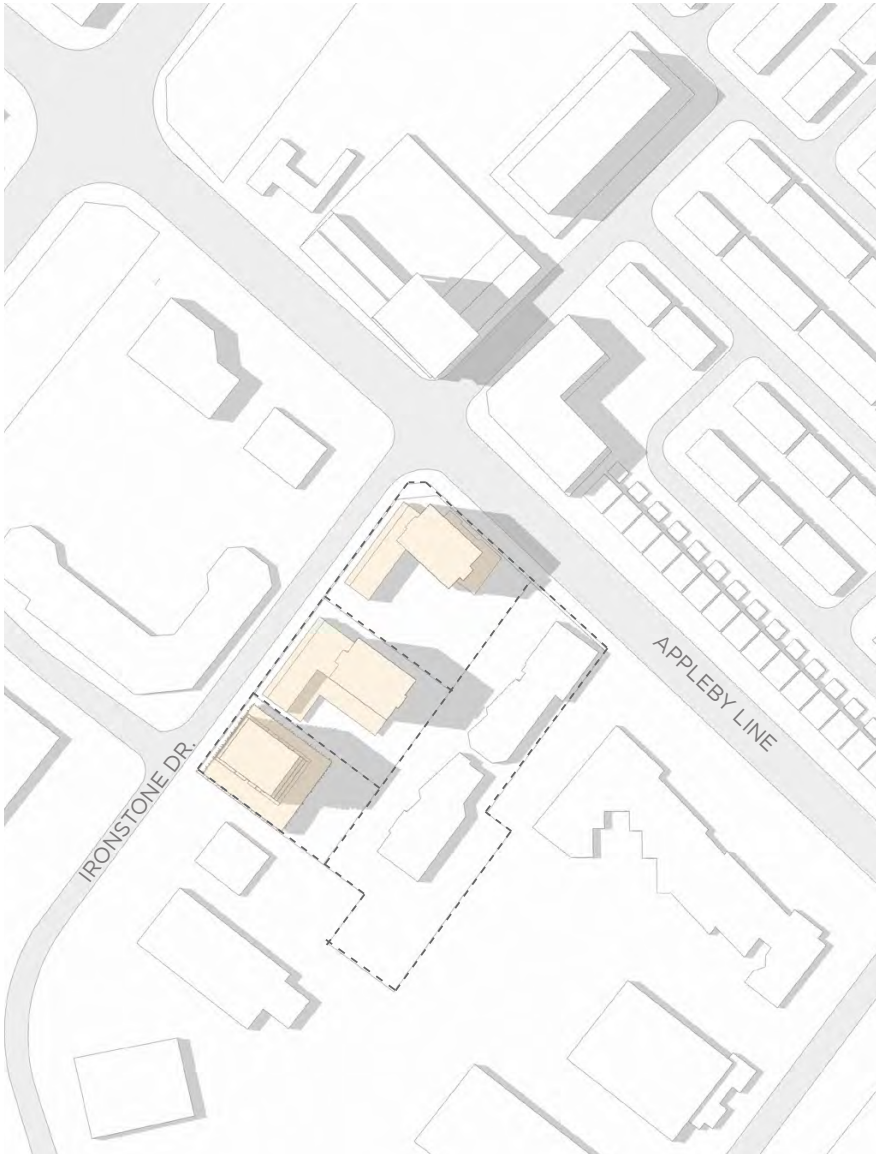
Parking and Loading

Parking is proposed within the site at grade and within three levels underground. Where surface parking is proposed, it is provided internal to the site and largely screened from the street by the built form. In this way, the design supports a more vibrant and pedestrian-oriented realm along both Ironstone Drive and Appleby Line.

In similar fashion, access to the underground parking is set back from the street in all cases (phases). At this time, the location of waste storage/pickup has yet to be determined, but considerations for access and truck maneuverability as well as environmental impacts (e.g. noise, odour, etc.) on the site and towards surroundings should be an important design consideration.

Access to Sunlight & Microclimate

The proposed massing of the Phase 1 building is such that the building itself will generally receive a high percentage of sunlight. Looking ahead to the ultimate condition, the arrangement of all buildings allow for ample amounts of solar access to the ground level spaces throughout the site. Positioned along the north of the site, the buildings will receive quality solar exposure, which will be desirable for maximizing natural sunlight for apartment units, and the relationship of the tower portions will help to ensure similar access to the exterior amenity spaces on rooftops as well as at grade.



None of the three buildings are expected to impose appreciable amounts of shadowing on neighbouring properties (refer to appended shadow studies for both Phase 1 specifically and the ultimate condition). Wind impacts are yet to be determined but are expected to be minimal also.

Privacy

Building positioning, setbacks, and strategic screening methods (e.g. planting) are intended to help minimize privacy impacts on surrounding properties.

As the landscape plan develops, strategic planting, fencing, and screens should be considered to bolster this effect, assisting in mitigating privacy issues, noise and potential odours.

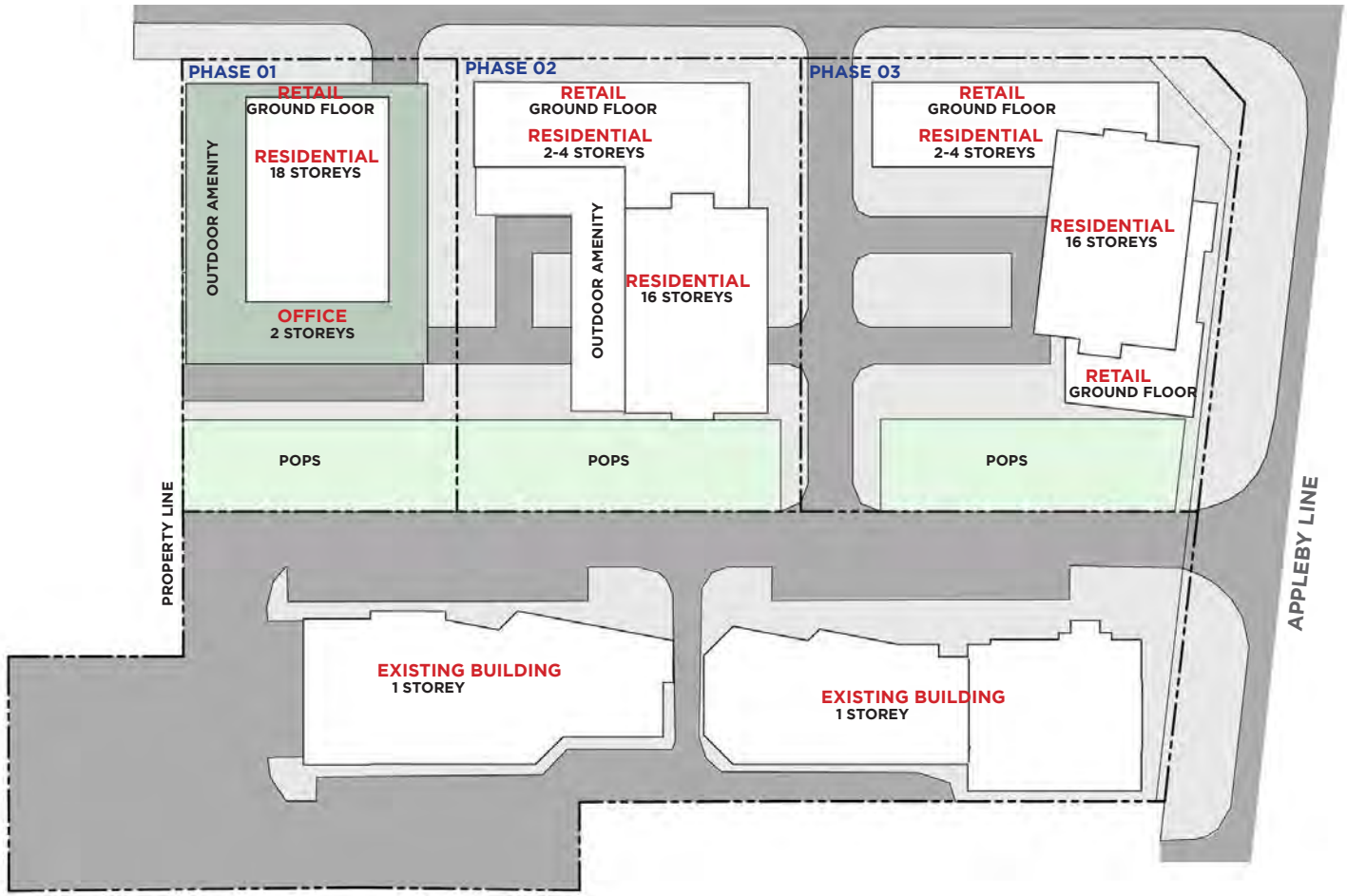
Professional Analysis

At a conceptual level, the proposed development is consistent with key and relevant guides as noted within this report. While the proposal seeks Official Plan and Zoning permissions, the proposed design aligns with the Official Plan's overall objectives: it supports a modernized approach towards urban living and can potentially achieve a multitude of planning objectives by combining a range of employment, retail, residential and complementary uses. Residents will be able to live, work, and play in this area, giving them an opportunity to depend less on their personal automobiles.

While the ultimate condition provides a comprehensive look at the complete block and streetscape potential on the site, the proposal has been design with regard for the incremental phases as well; each phase responds to the contextual existing conditions successfully on a site by site basis. I.e. if phase one were to be constructed as a standalone development, it would achieve much of the same positive compatibility marks with the two existing plaza buildings is it would with proposed 16-storey developments which have been conceptually massed.

Based on review of applicable policy, guides, and an analysis of the contextual setting, it is our professional opinion that the proposal –in both the incremental and ultimate conditions– provides a quality development option for the site and we support the project from an urban design perspective.

Conceptual Site Plan



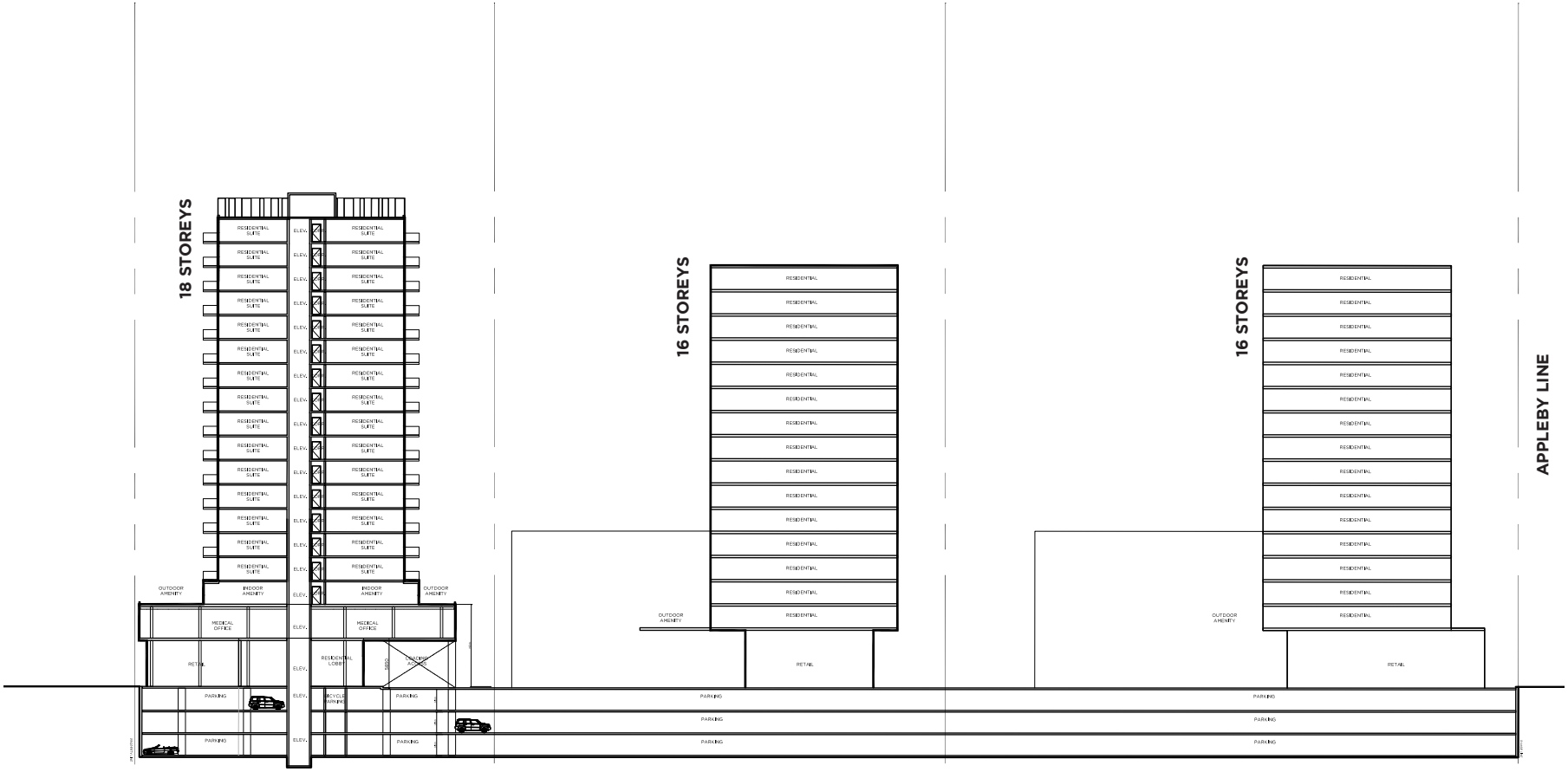
CONCEPTUAL SITE PLAN

17024 - 1900 APPLEBY LINE
JUNE 2021

Conceptual Landscape Plan (Progress)



Conceptual Architectural Elevations



CONCEPTUAL SECTION

17024 - 1900 APPLEBY LINE
JUNE 2021

Renderings of Proposed Buildings within Neighbourhood Context



17024 - 1900 APPLEBY LINE
JUNE 2021

AERIAL VIEW



17024 - 1900 APPLEBY LINE
JUNE 2021

AERIAL VIEW



17024 - 1900 APPLEBY LINE
JUNE 2021

AERIAL VIEW



17024 - 1900 APPLEBY LINE
JUNE 2021

PHASE 01 STREETVIEW



17024 - 1900 APPLEBY LINE
JUNE 2021

STREETVIEW FROM APPLEBY LINE

APPENDICES

Appendix A Sun Shadow Analysis - Phase 1 and Ultimate Conditions

See attached

SHADOW STUDY
17024 1900 APPLEBY LINE
BURLINGTON, ONTARIO

DATE 11 MAY 2021

405-317 ADELAIDE STREET WEST
TORONTO CANADA M5V 1P9
+1 416 599 9729
WWW. RAWDESIGN.CA



9:00AM

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20

10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



10:00AM

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10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



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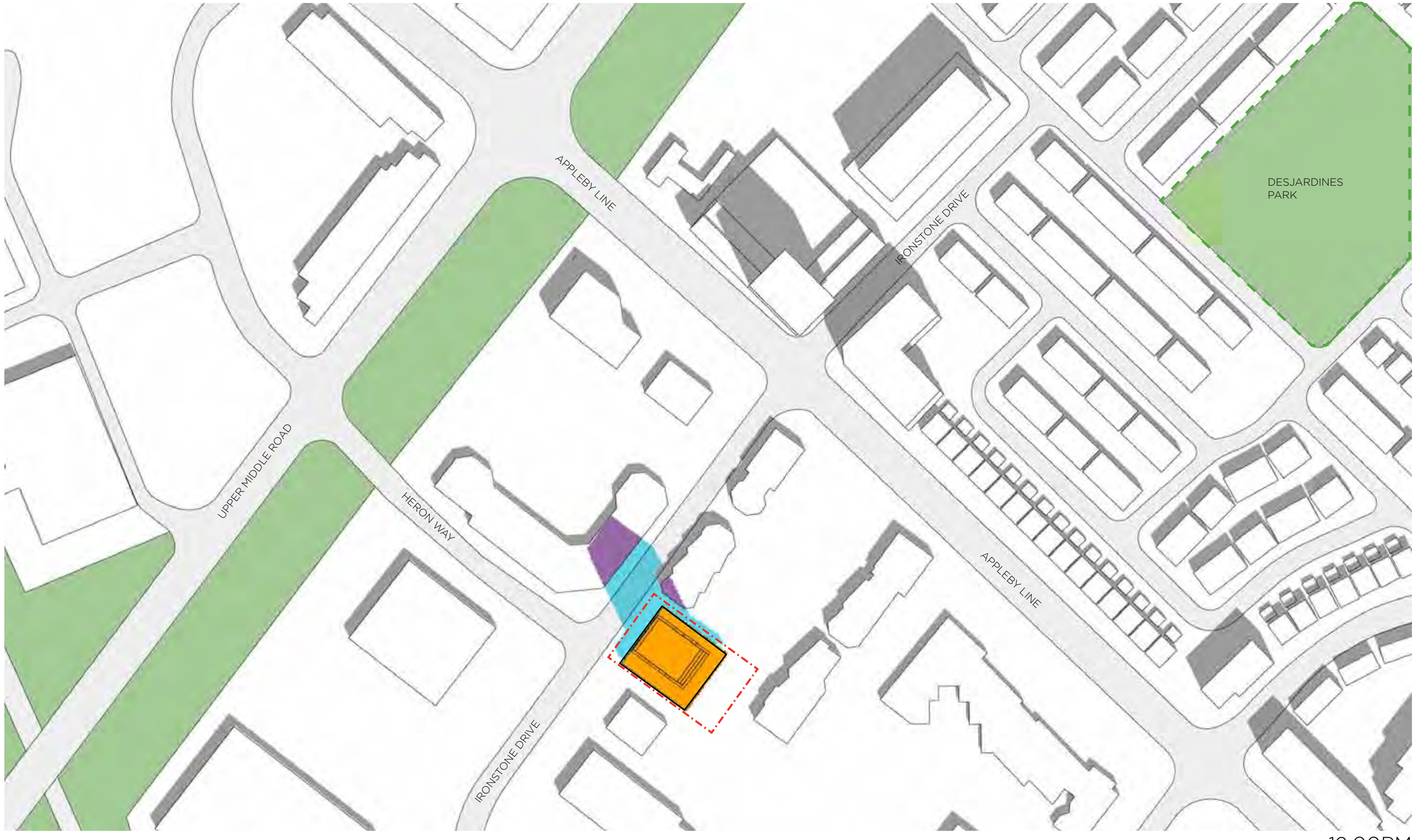
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PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
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PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



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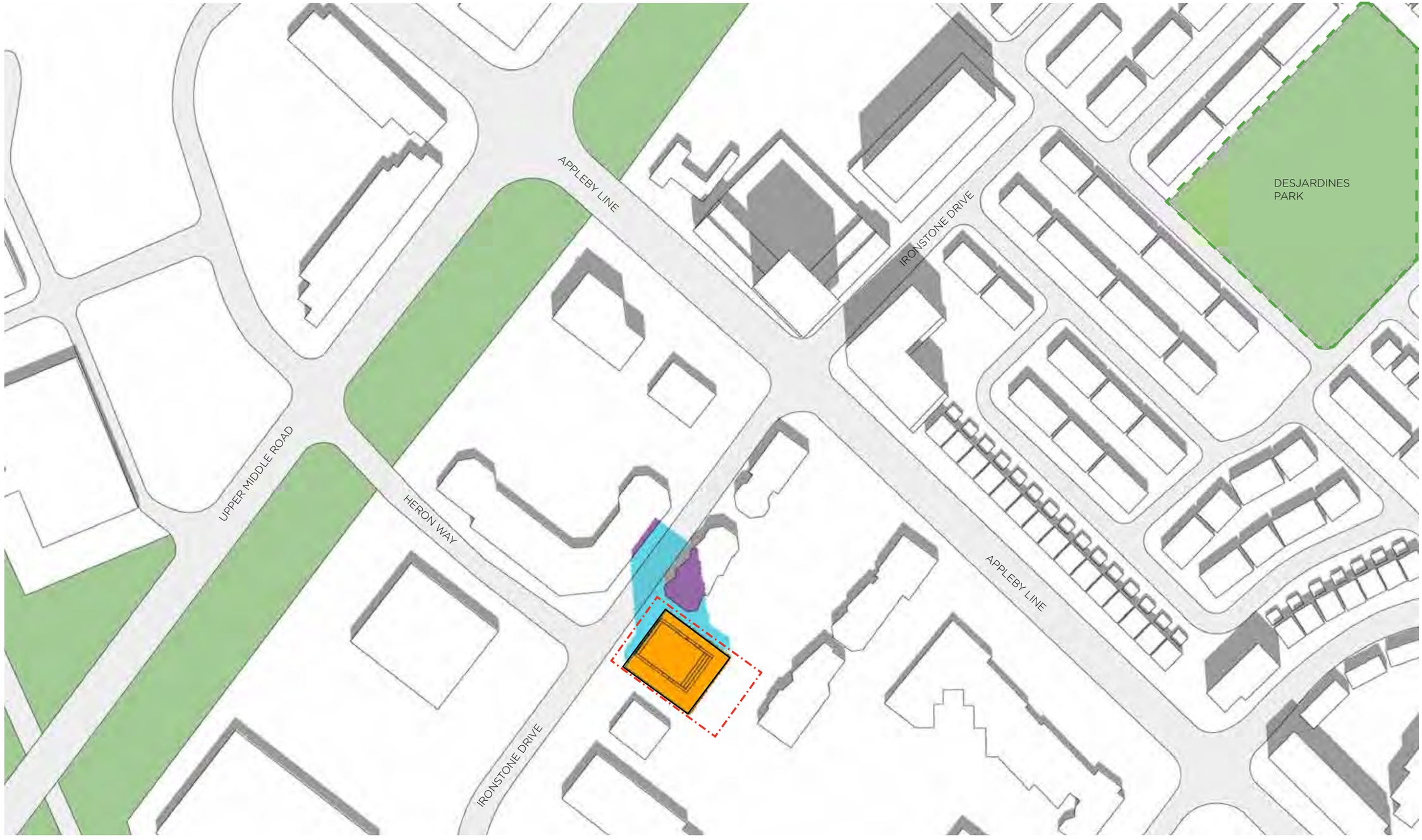
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PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
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PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



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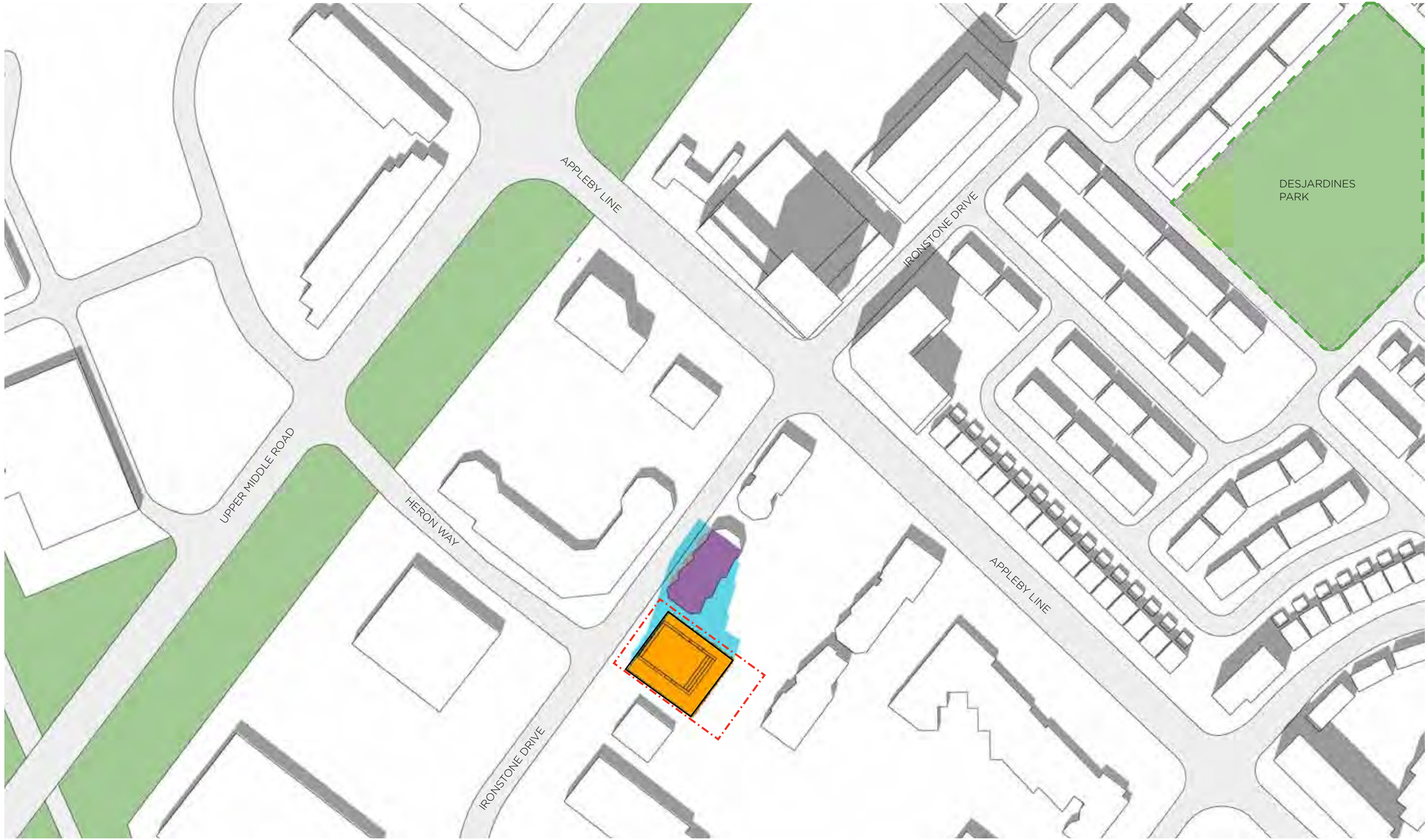
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PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



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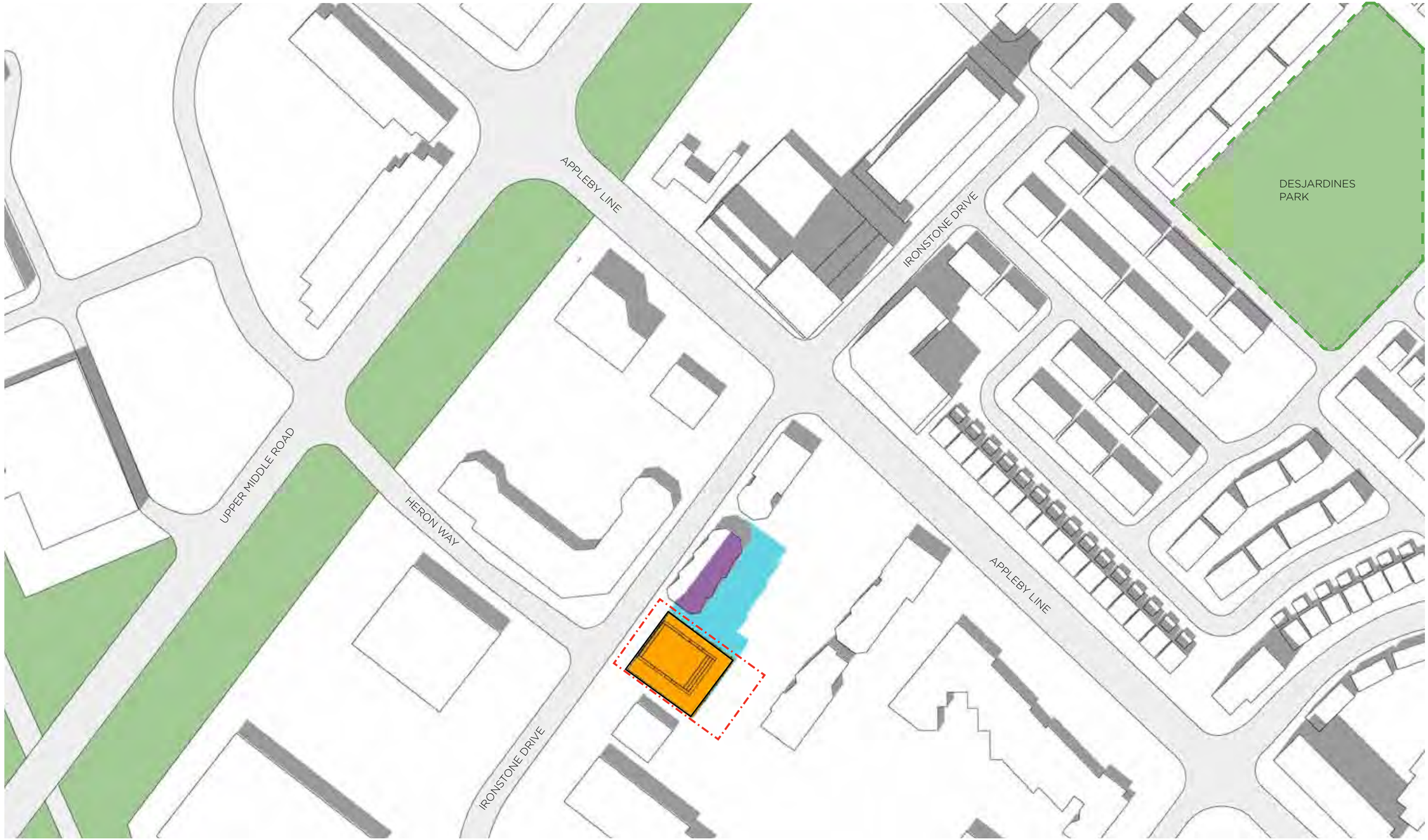
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10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



3:00PM

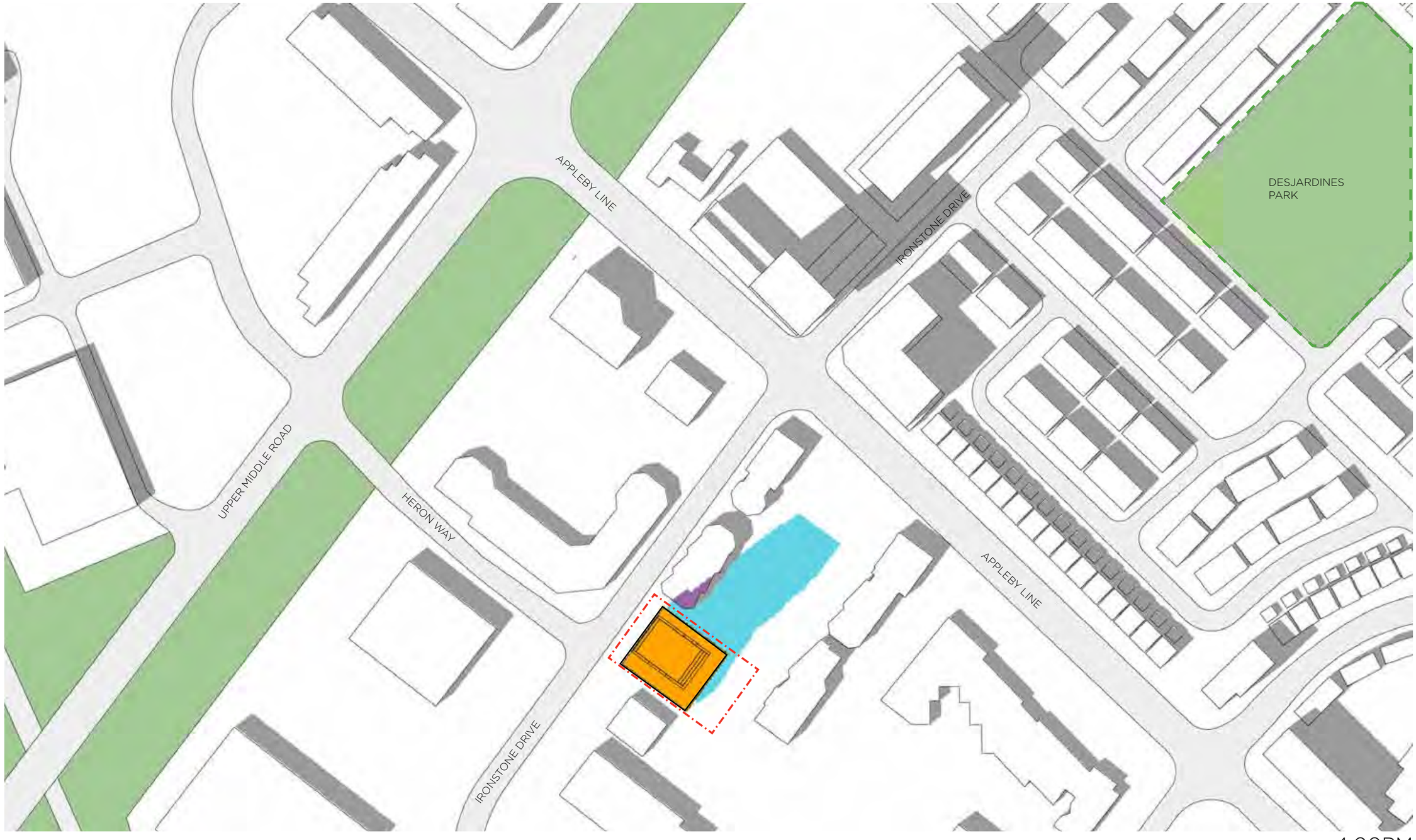
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20
10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



4:00PM

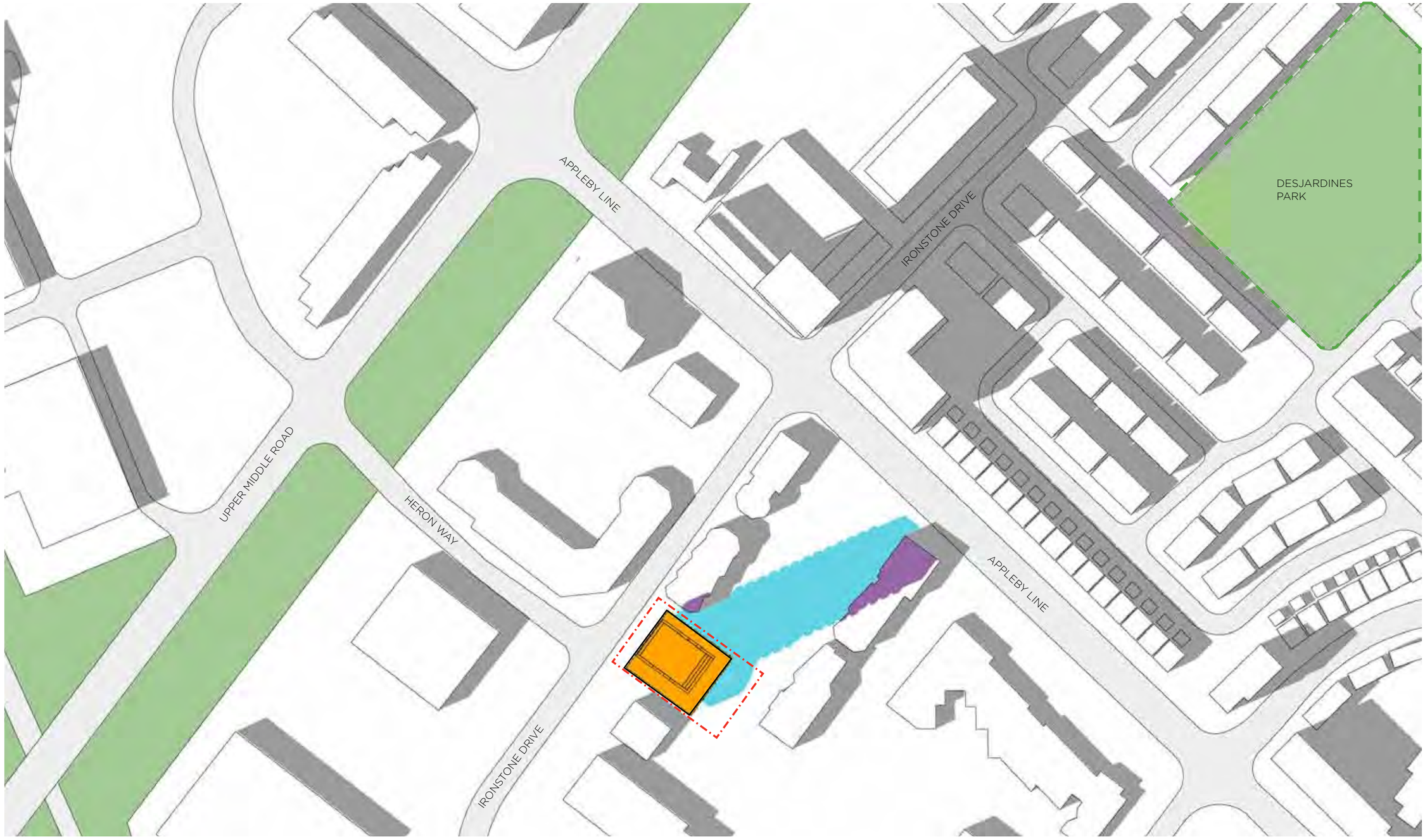
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20
10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



5:00PM

1 : 2000

20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



6:00PM

1 : 2000

20

10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



8:00AM

1 : 2000

20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



9:00AM

1 : 2000

20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



10:00AM

1 : 2000

20

10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



11:00AM

1 : 2000

20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



12:00PM

1 : 2000

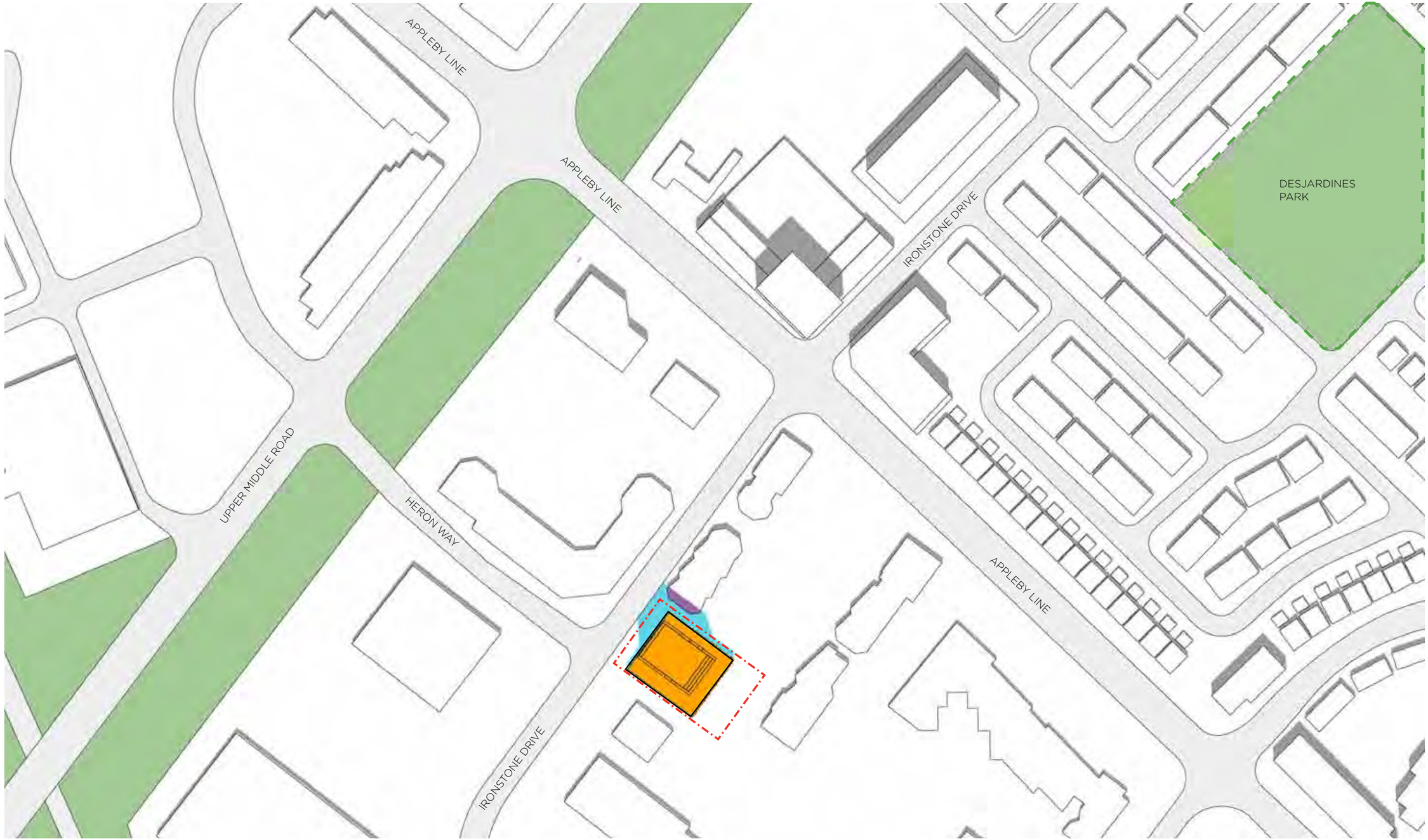
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10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



1:00PM

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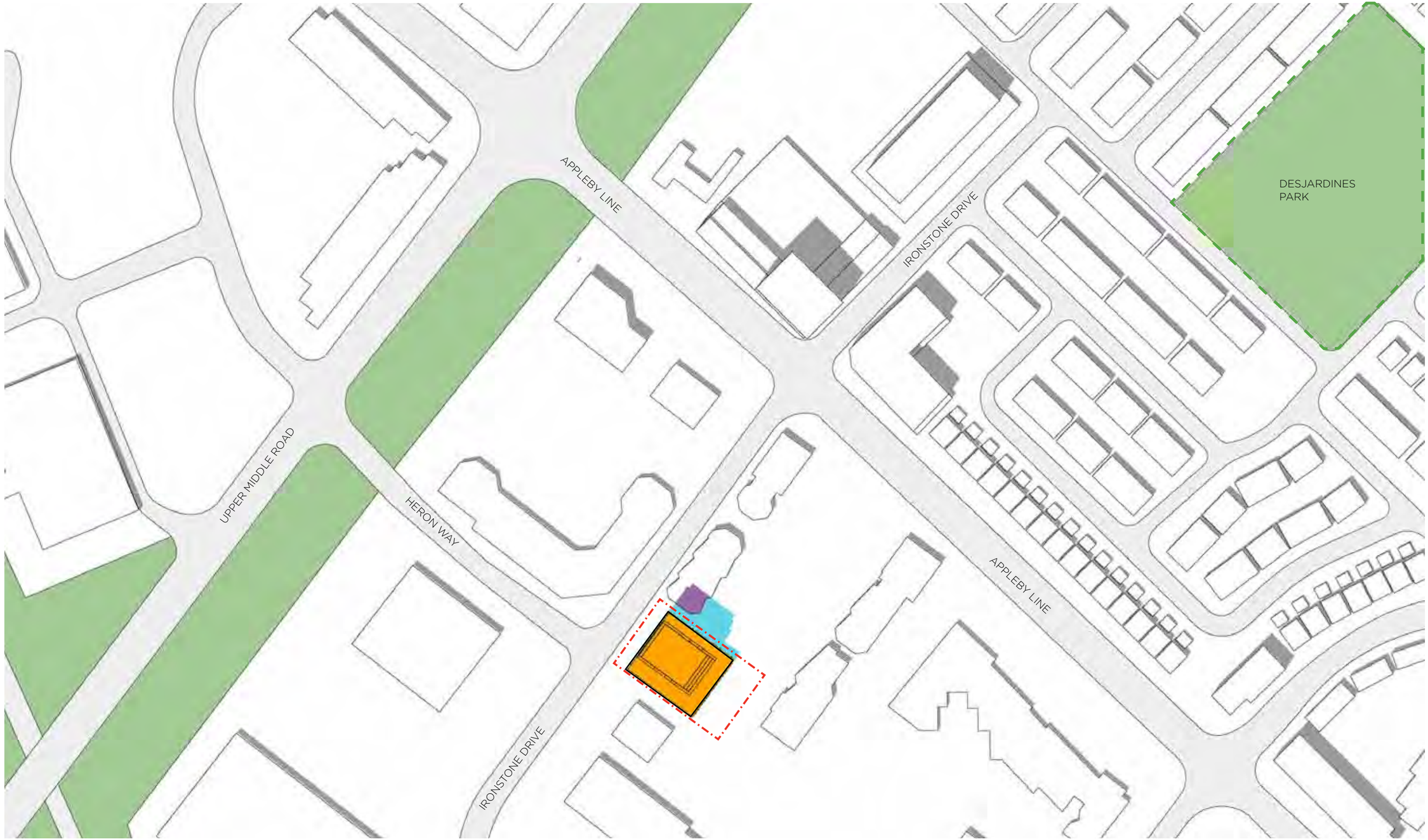
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10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



2:00PM

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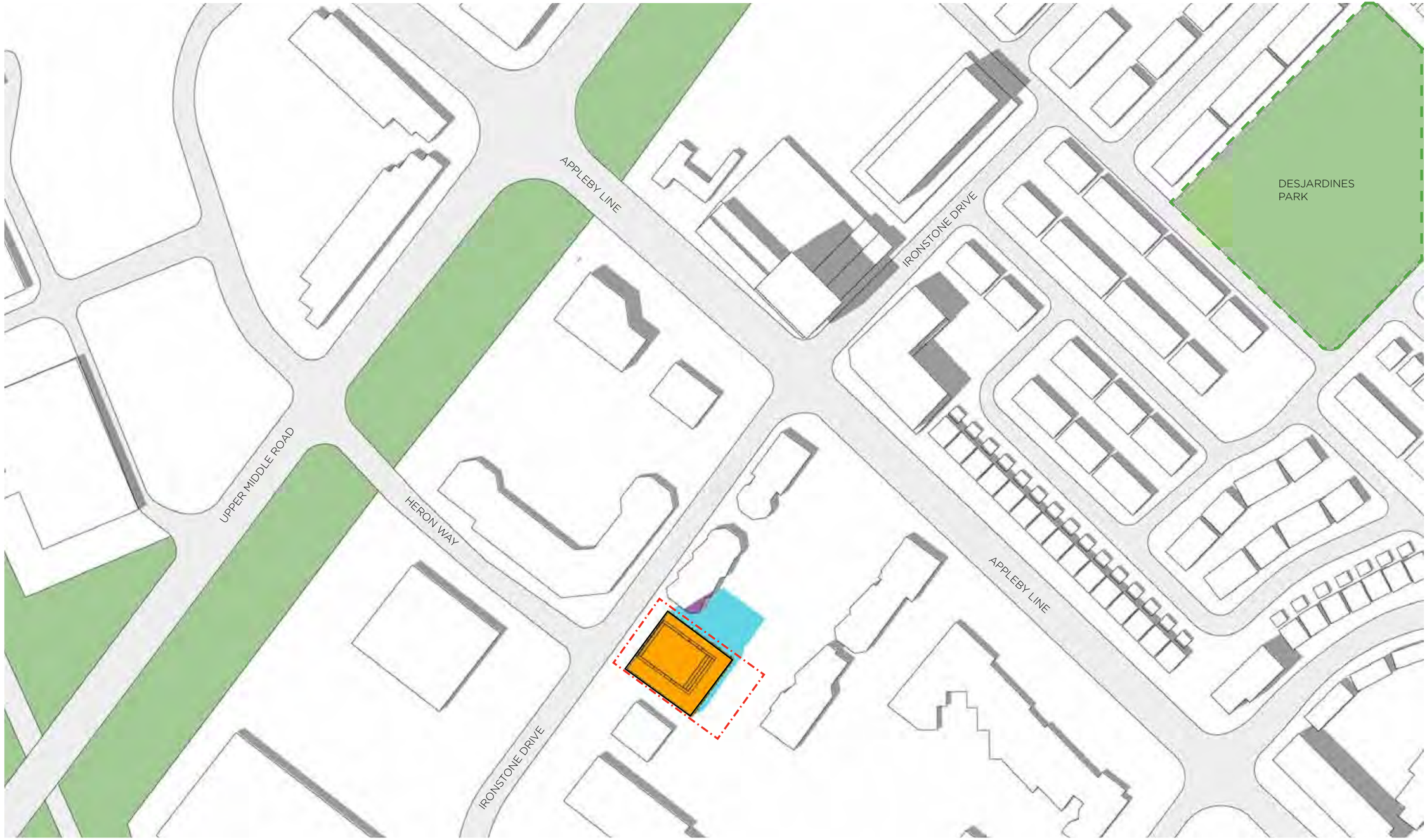
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10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



3:00PM

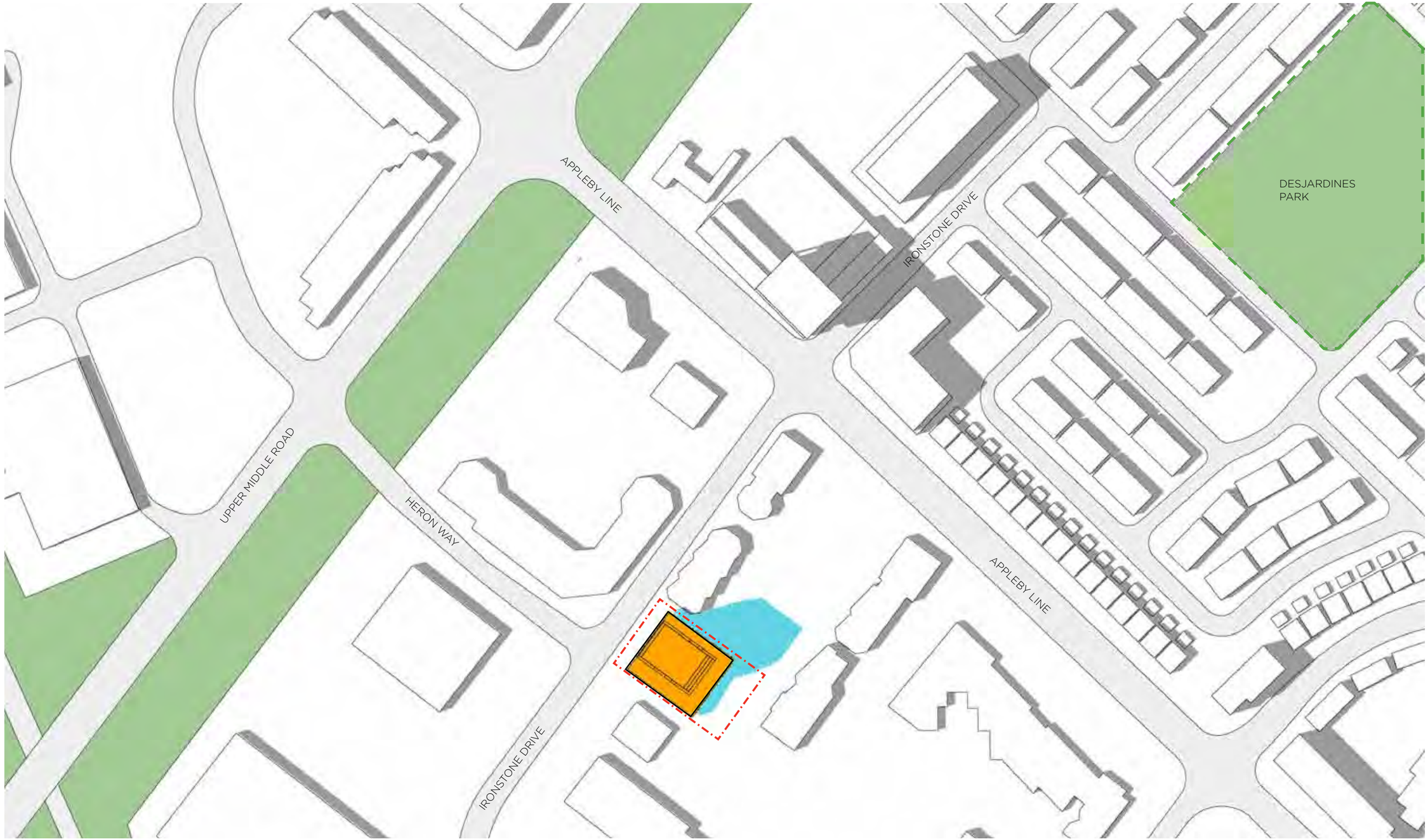
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20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



4:00PM

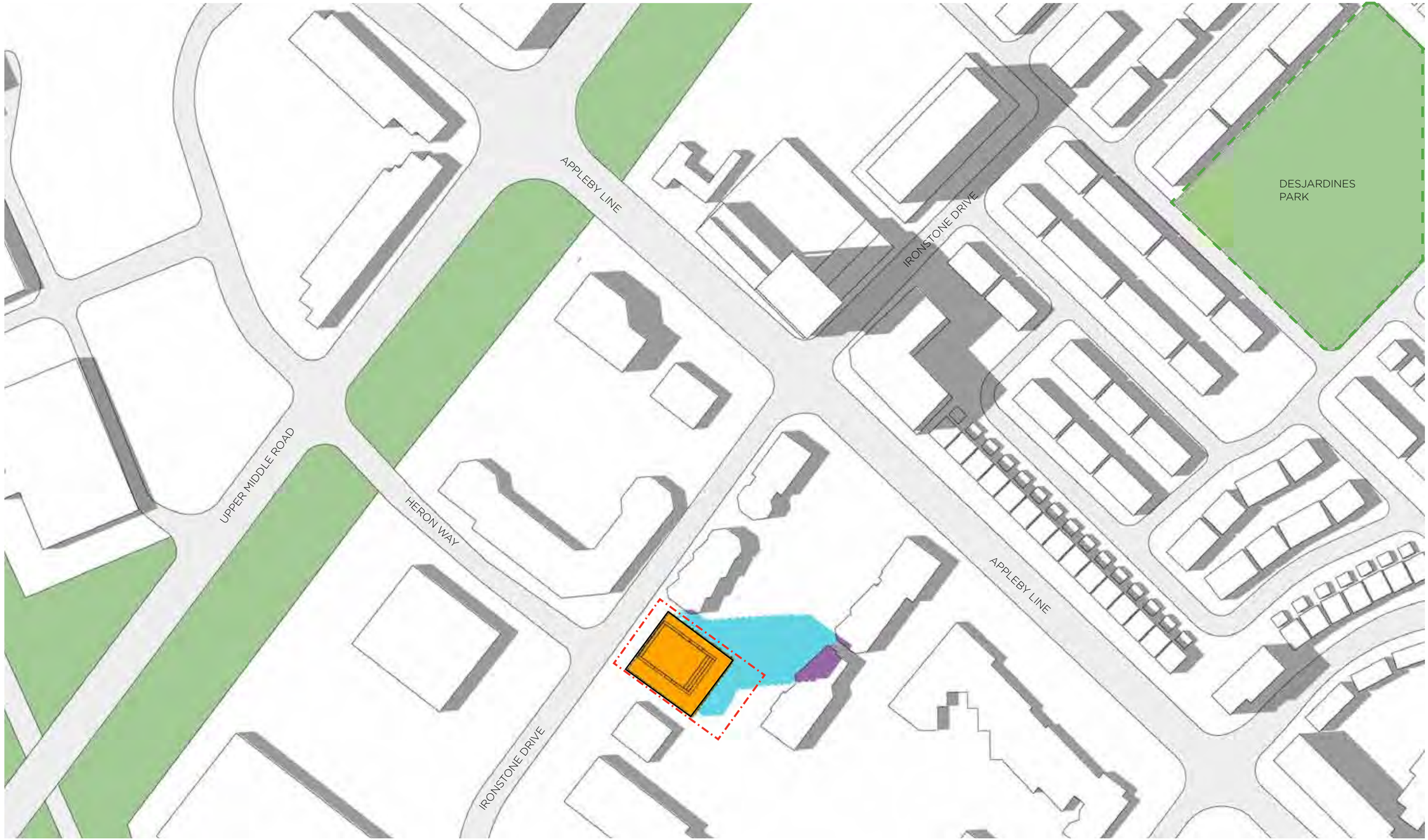
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JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



5:00PM

1 : 2000

20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



6:00PM

1 : 2000

20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



7:00PM

1 : 2000

20

10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



9:00AM

1 : 2000

20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



10:00AM

1 : 2000

20
10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



11:00AM

1 : 2000

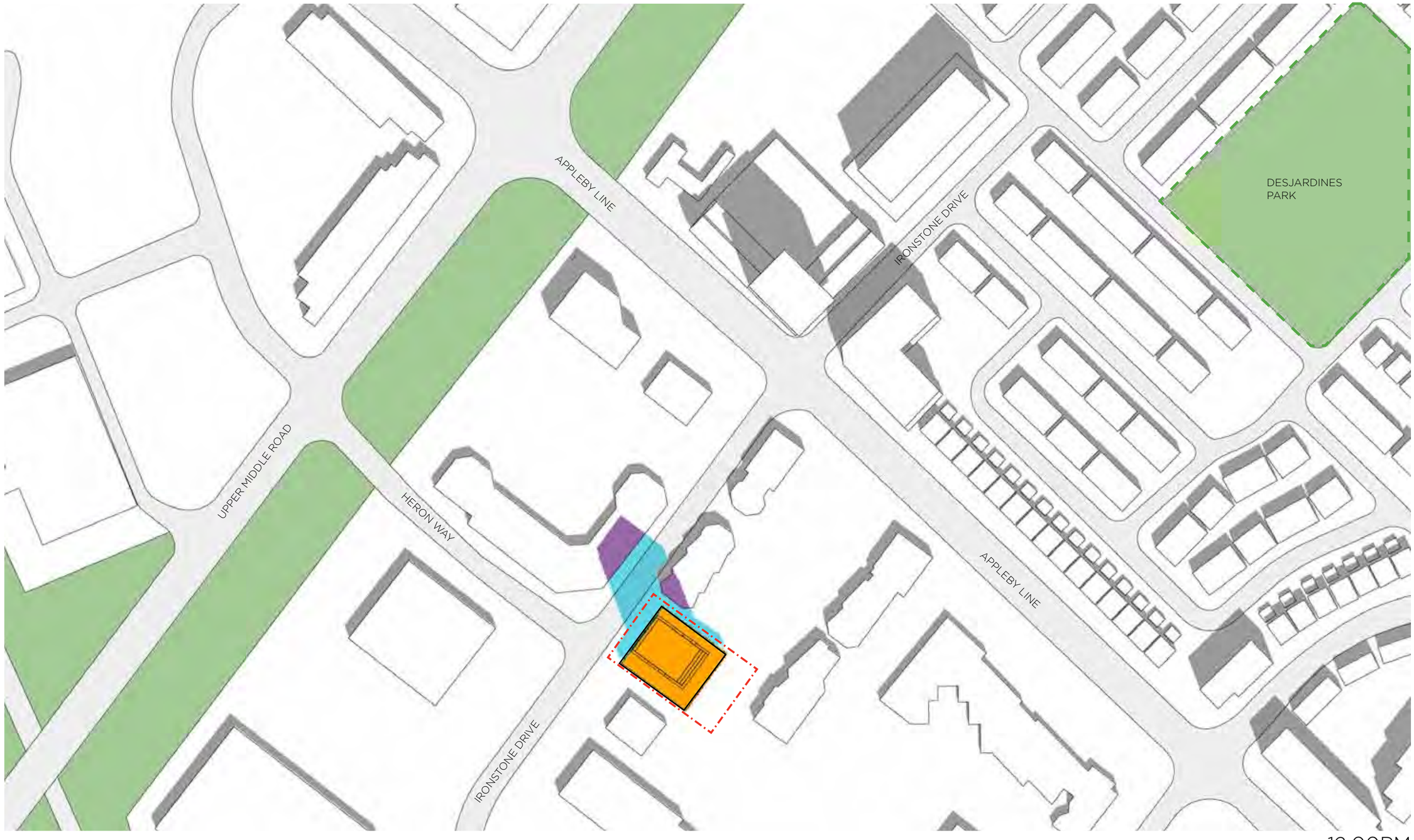
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10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
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SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



12:00PM

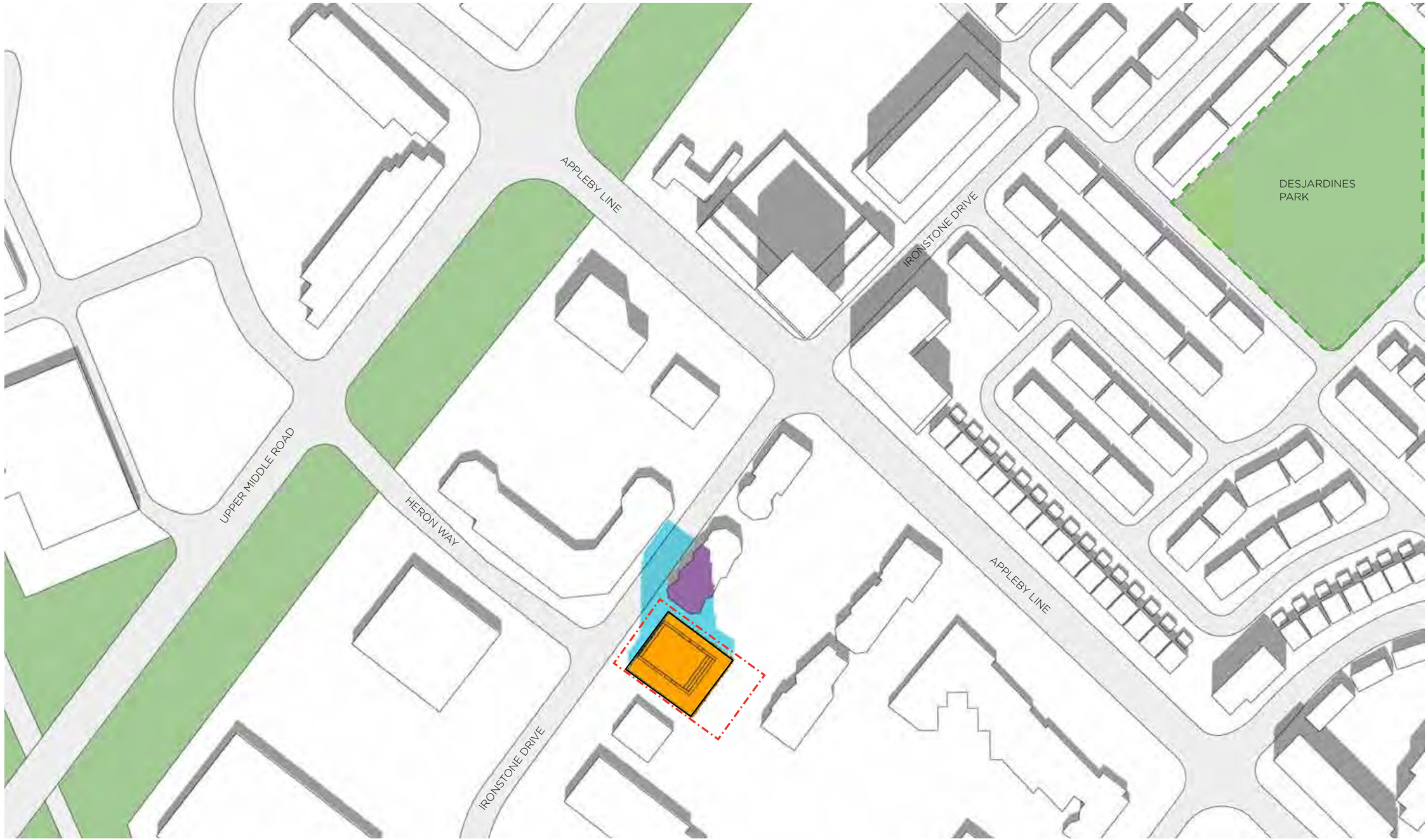
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10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



1:00PM

1 : 2000

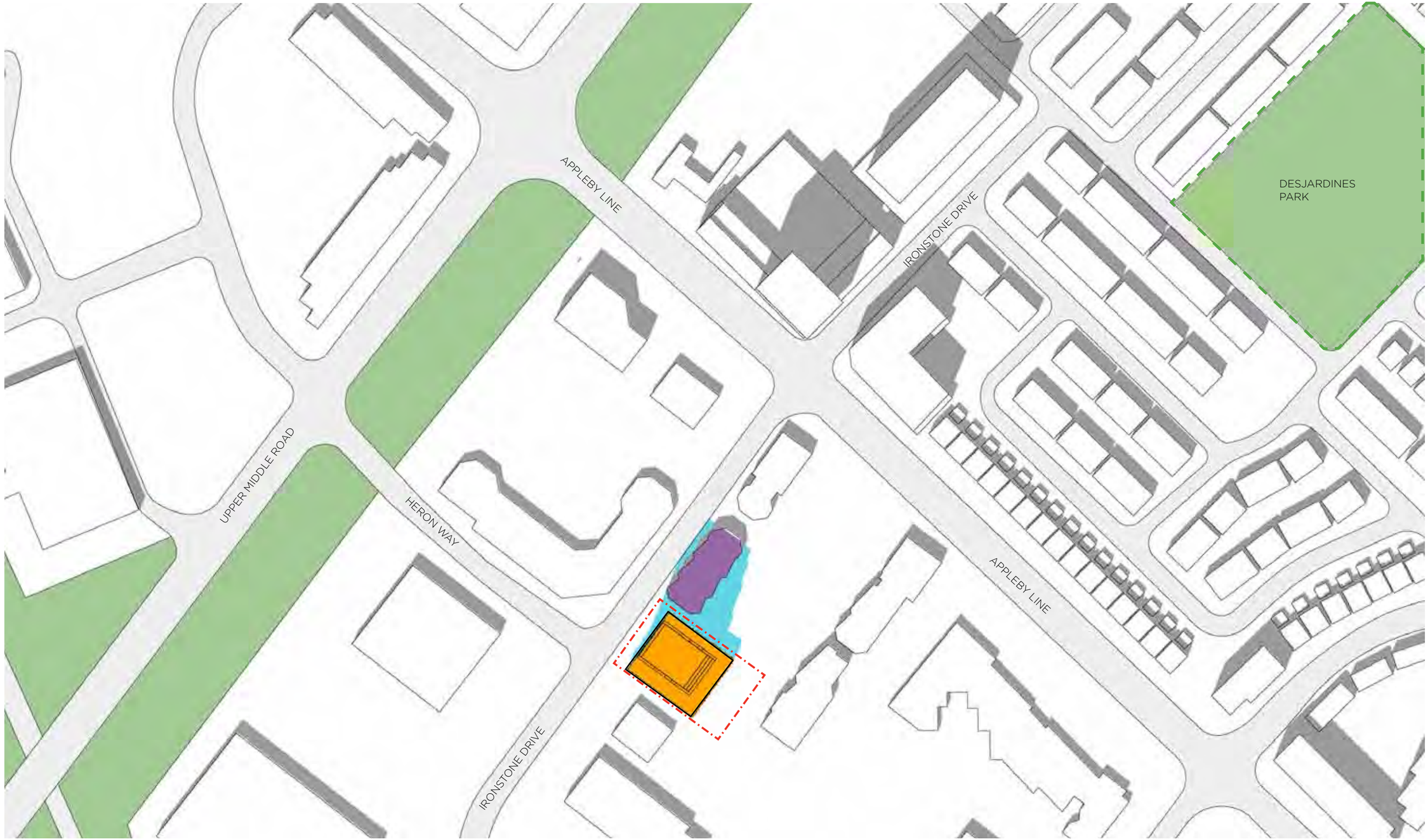
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10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



2:00PM

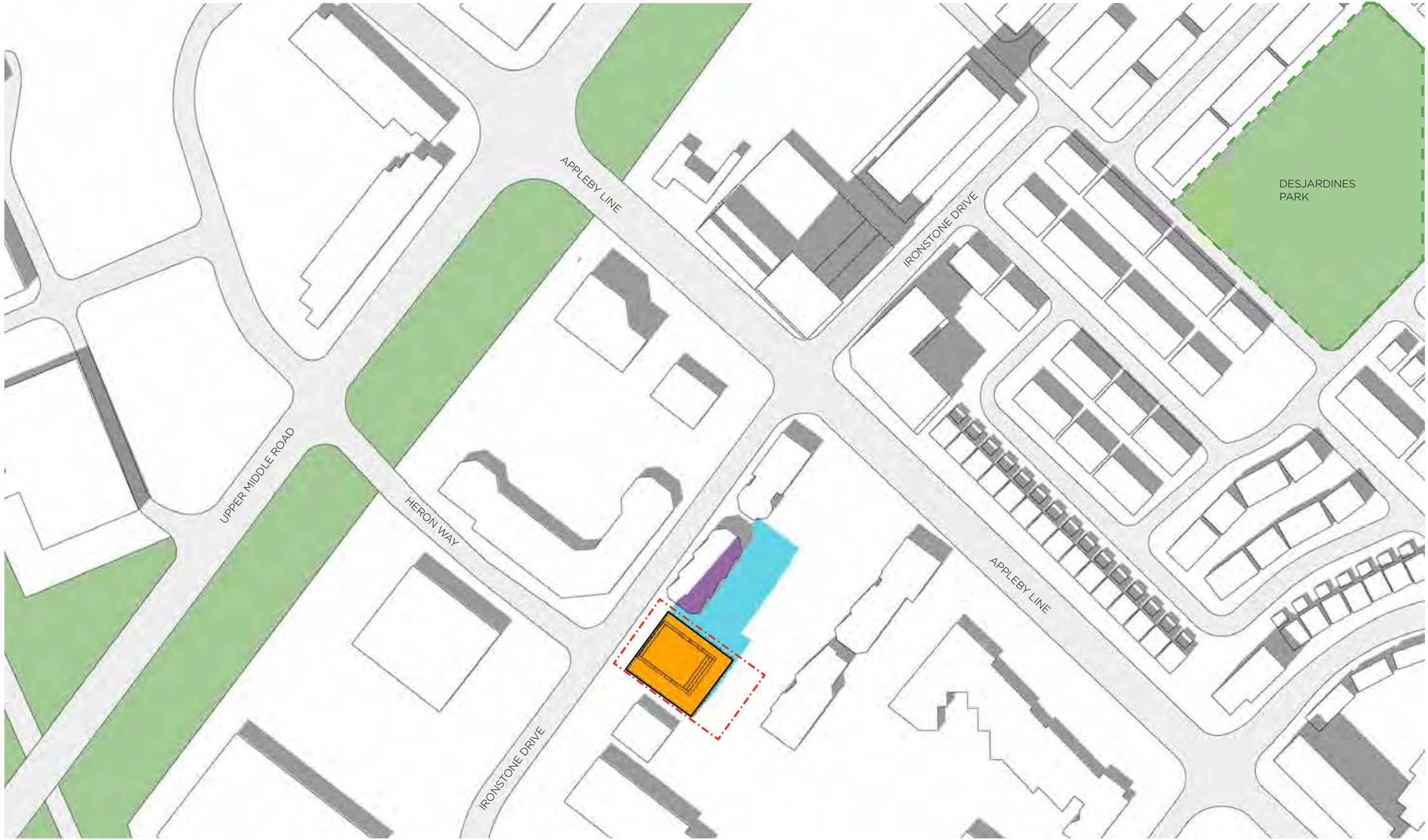
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20
10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



3:00PM

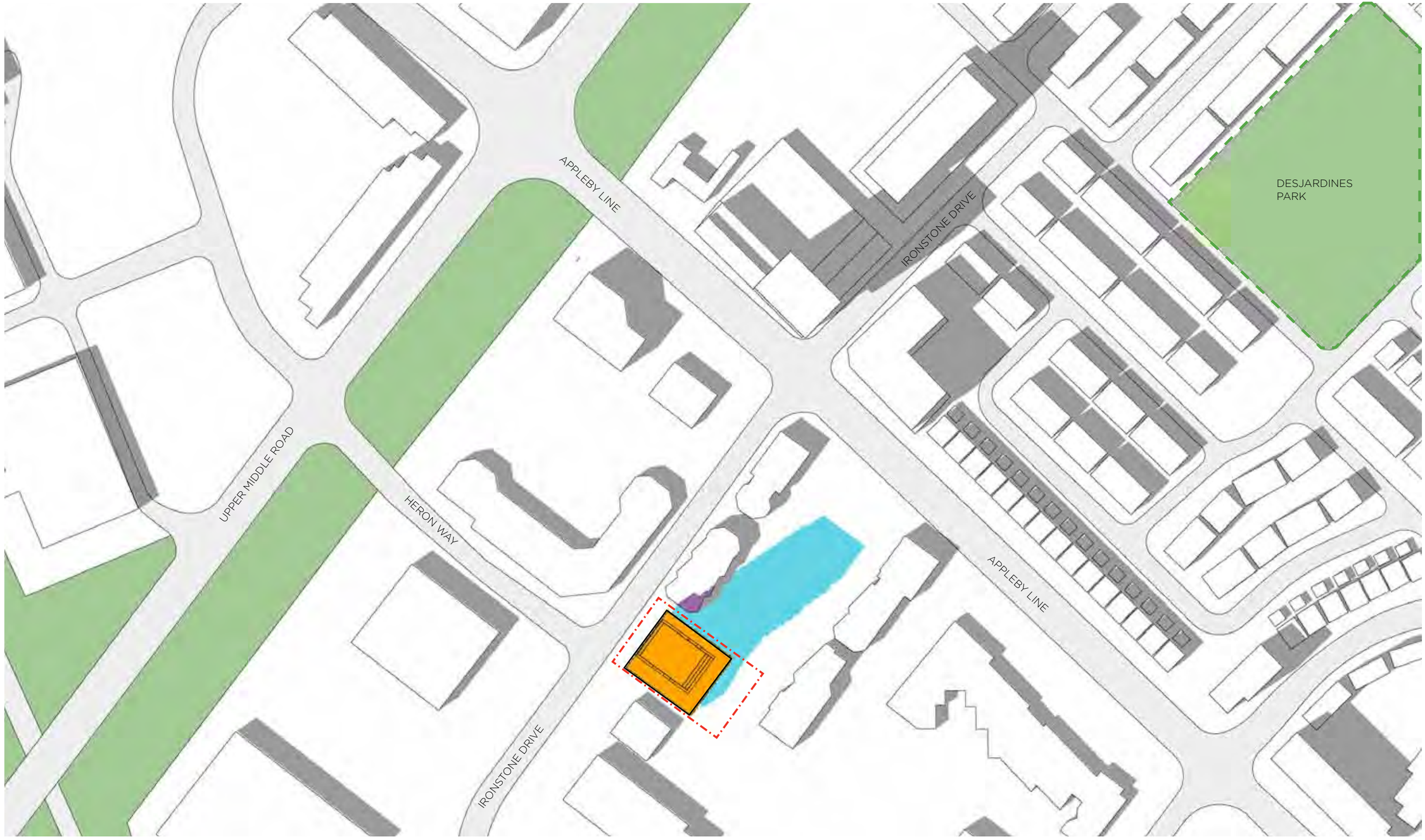
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- PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



4:00PM

1 : 2000

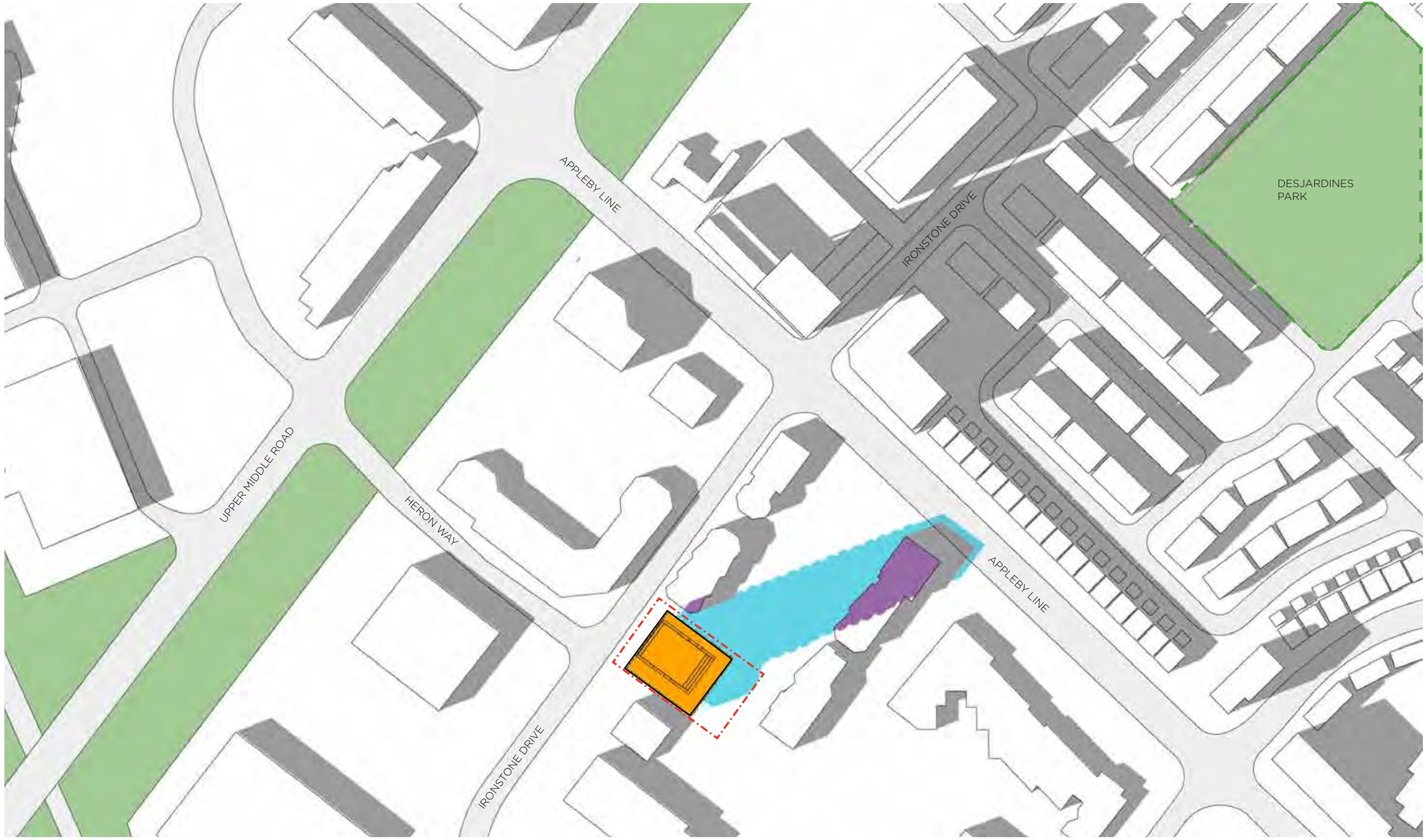
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10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



5:00PM

1 : 2000

20
10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



6:00PM

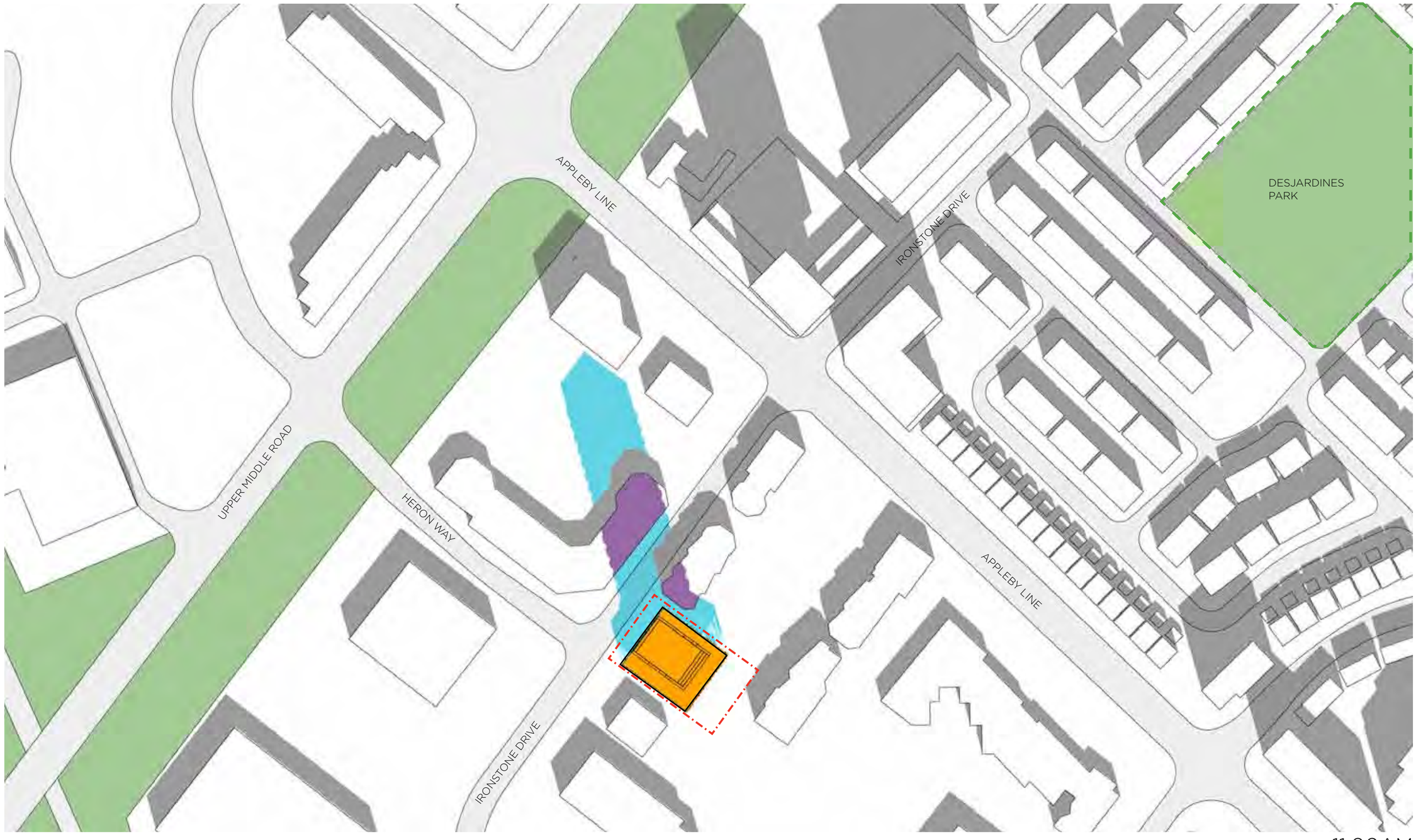
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20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



11:00AM

1 : 2000

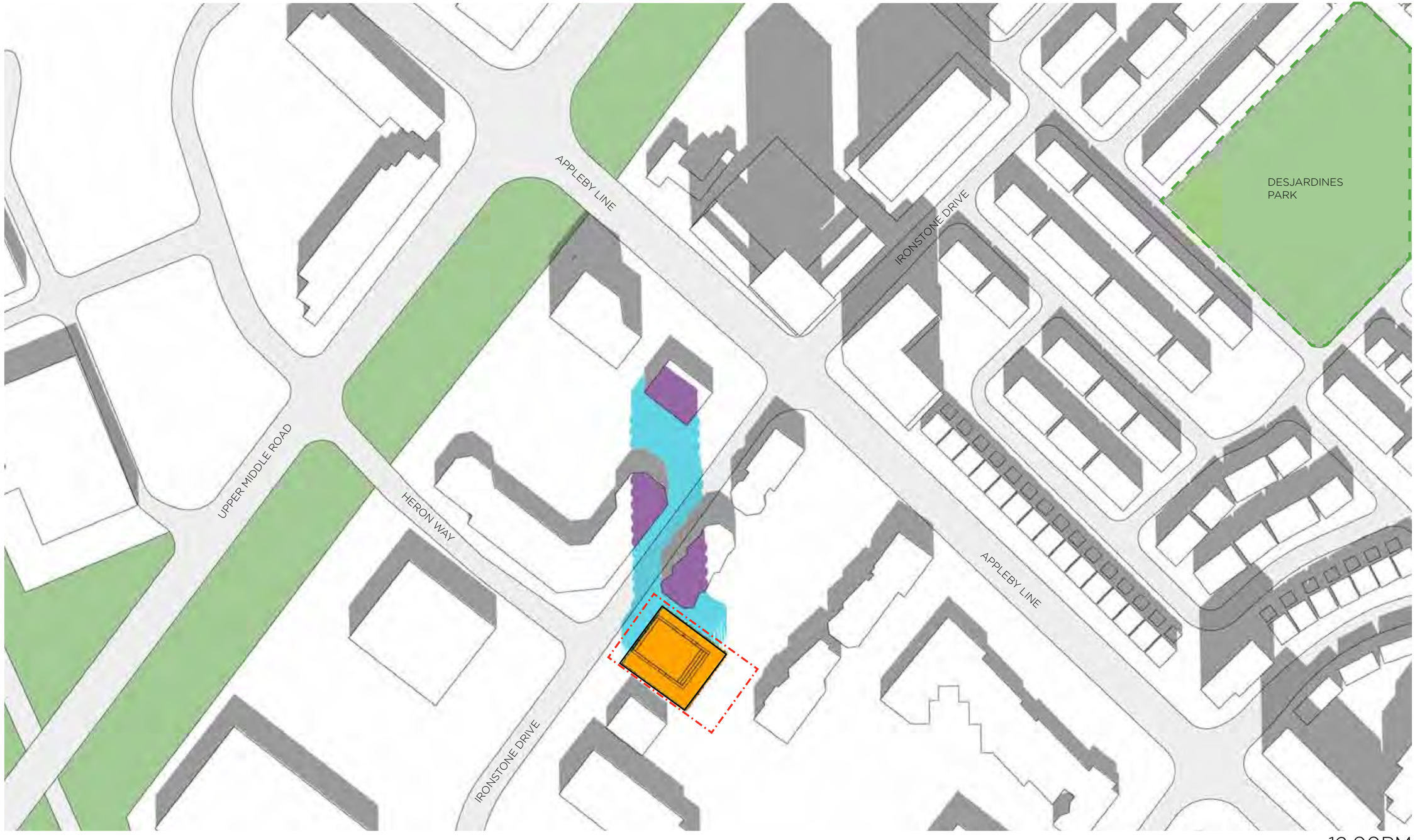
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10 100 meters

- PROPERTY LINE
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- PARK

DEC 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



12:00PM

1 : 2000

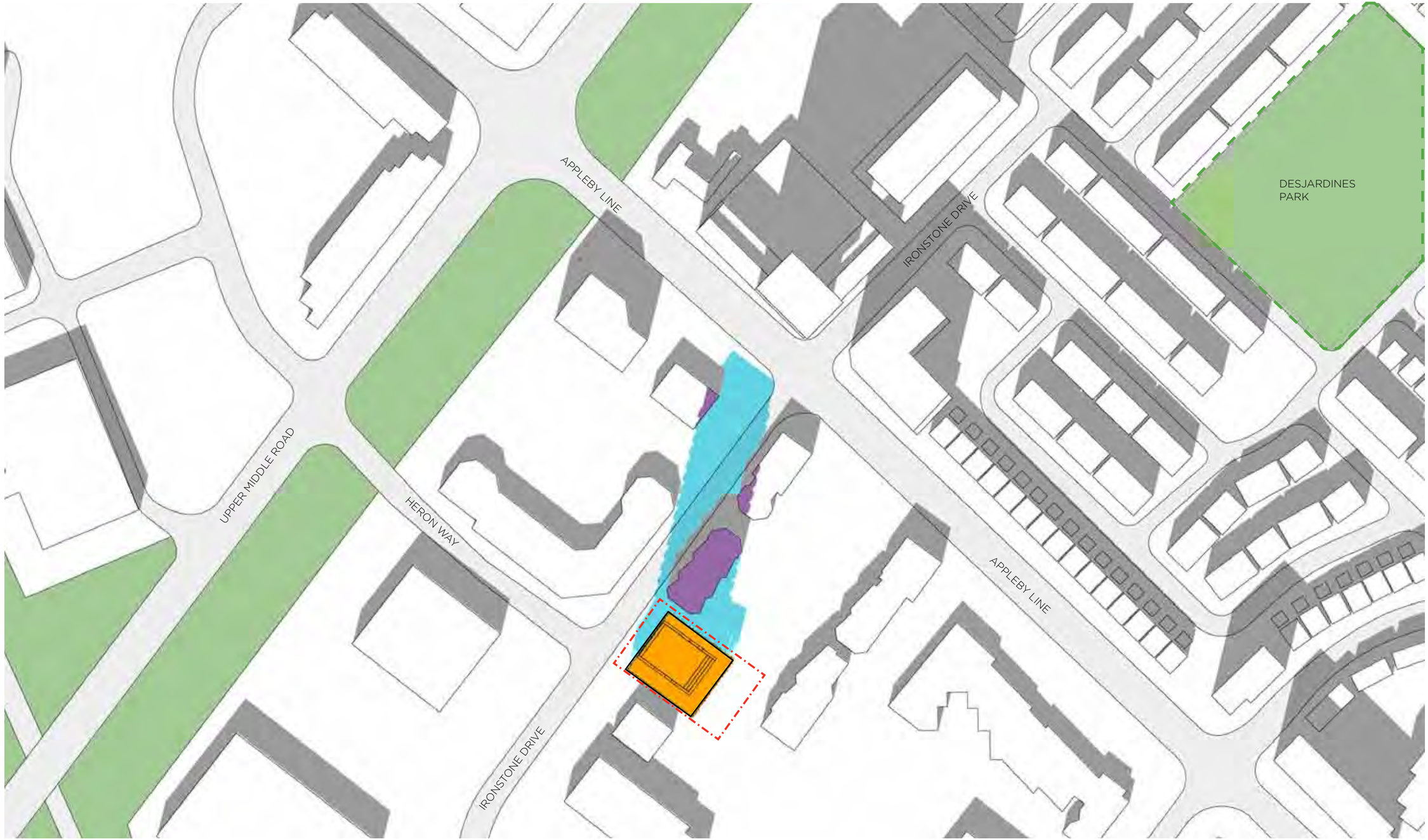
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10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

DEC 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



1:00PM

1 : 2000

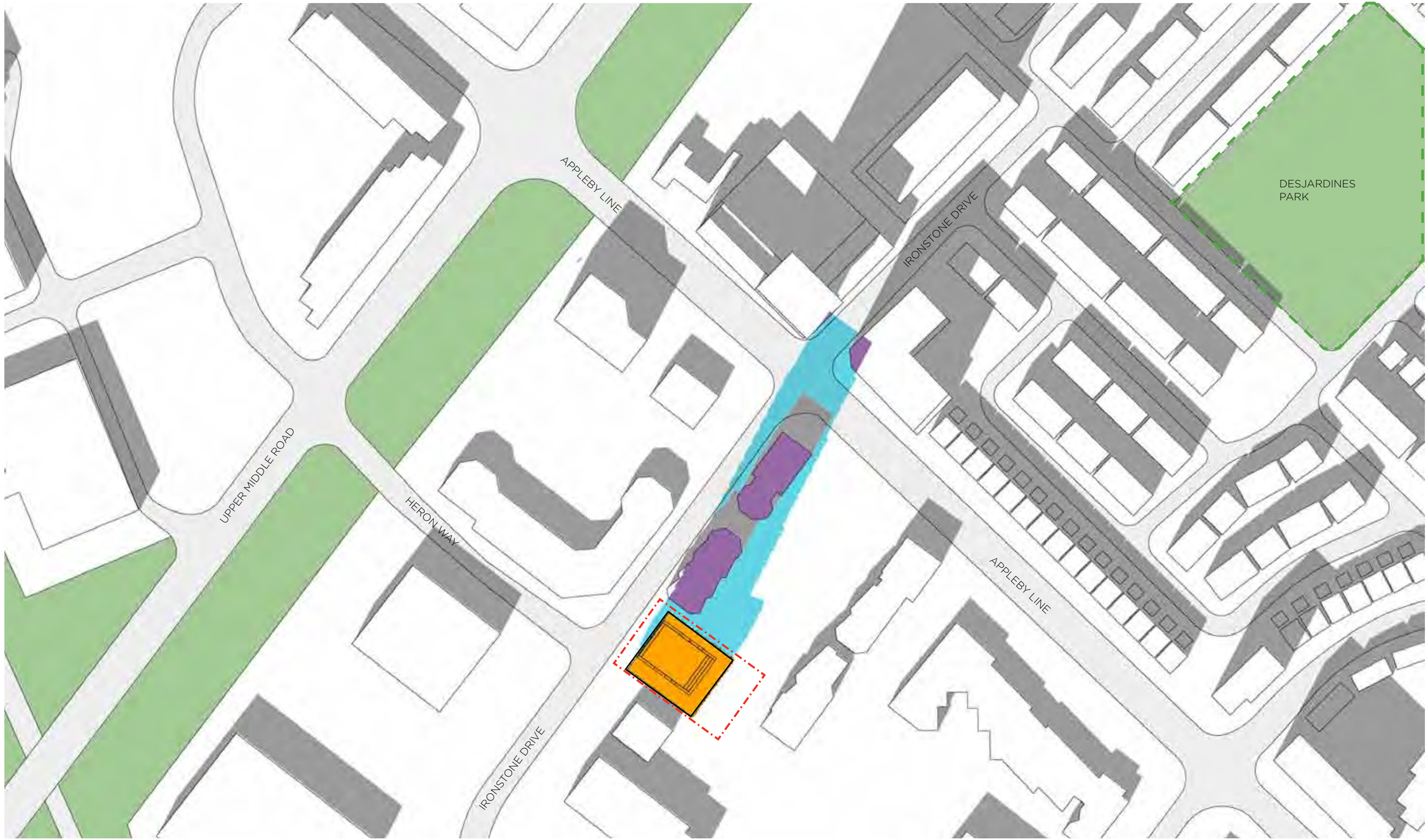
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10 100 meters

- PROPERTY LINE
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- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

DEC 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



2:00PM

1 : 2000

20
10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

DEC 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



3:00PM

1 : 2000

20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

DEC 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021

SHADOW STUDY
17024 1900 APPLEBY LINE
BURLINGTON, ONTARIO

DATE 11 MAY 2021

405-317 ADELAIDE STREET WEST
TORONTO CANADA M5V 1P9
+1 416 599 9729
WWW. RAWDESIGN.CA



9:00AM

1 : 2000

20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



10:00AM

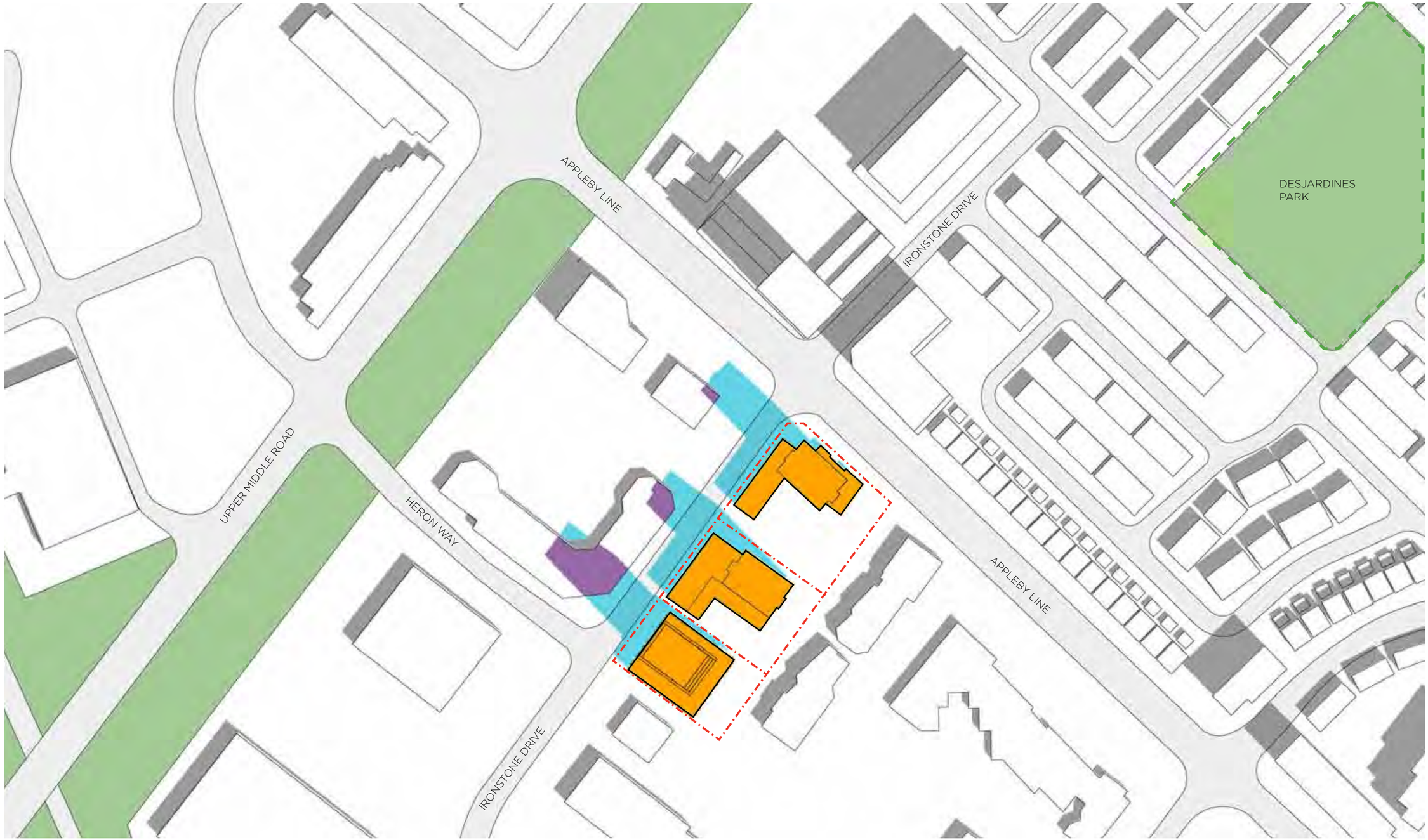
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10 100 meters

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MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



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PROPERTY LINE
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PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



12:00PM

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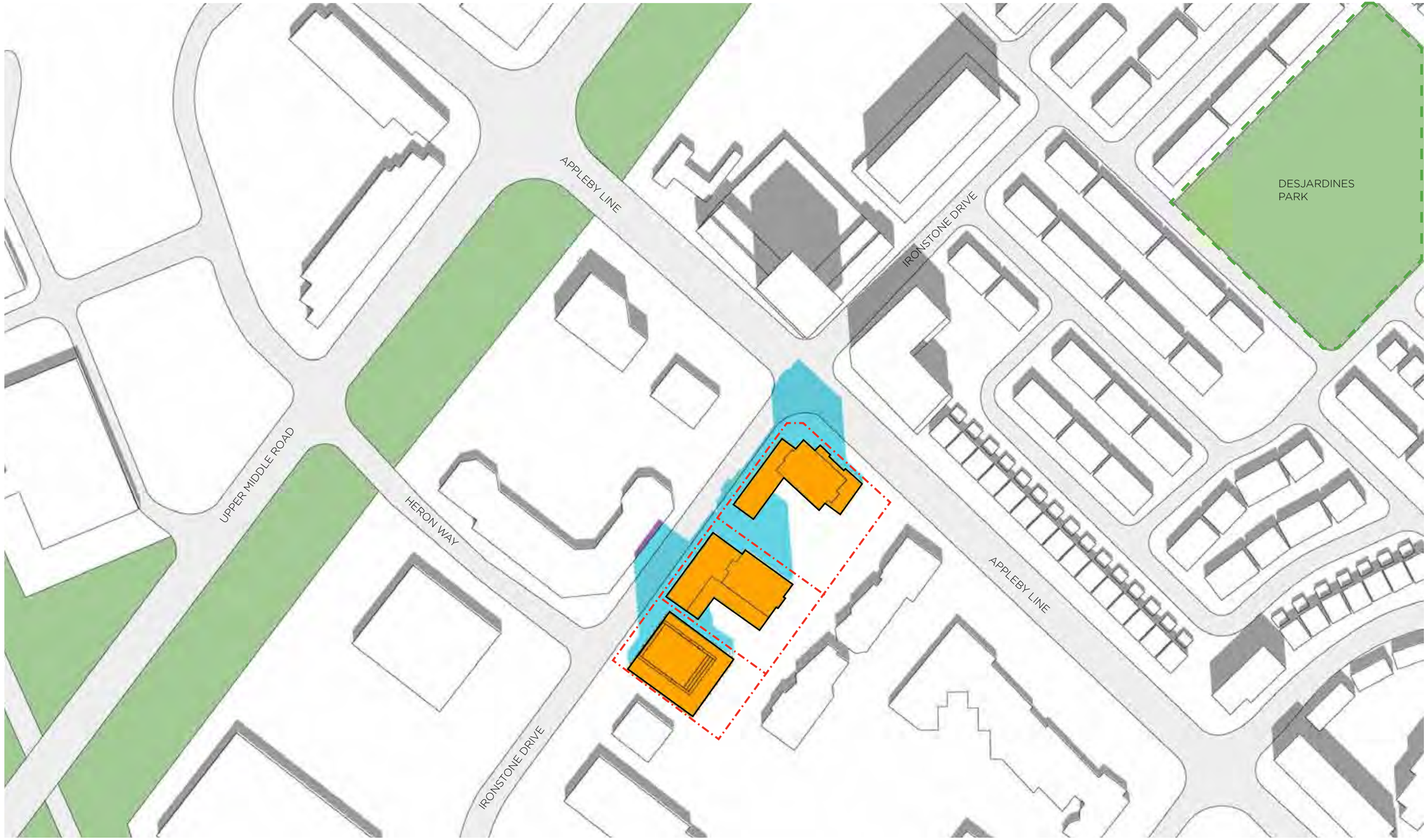
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10 100 meters

PROPERTY LINE
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PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



1:00PM

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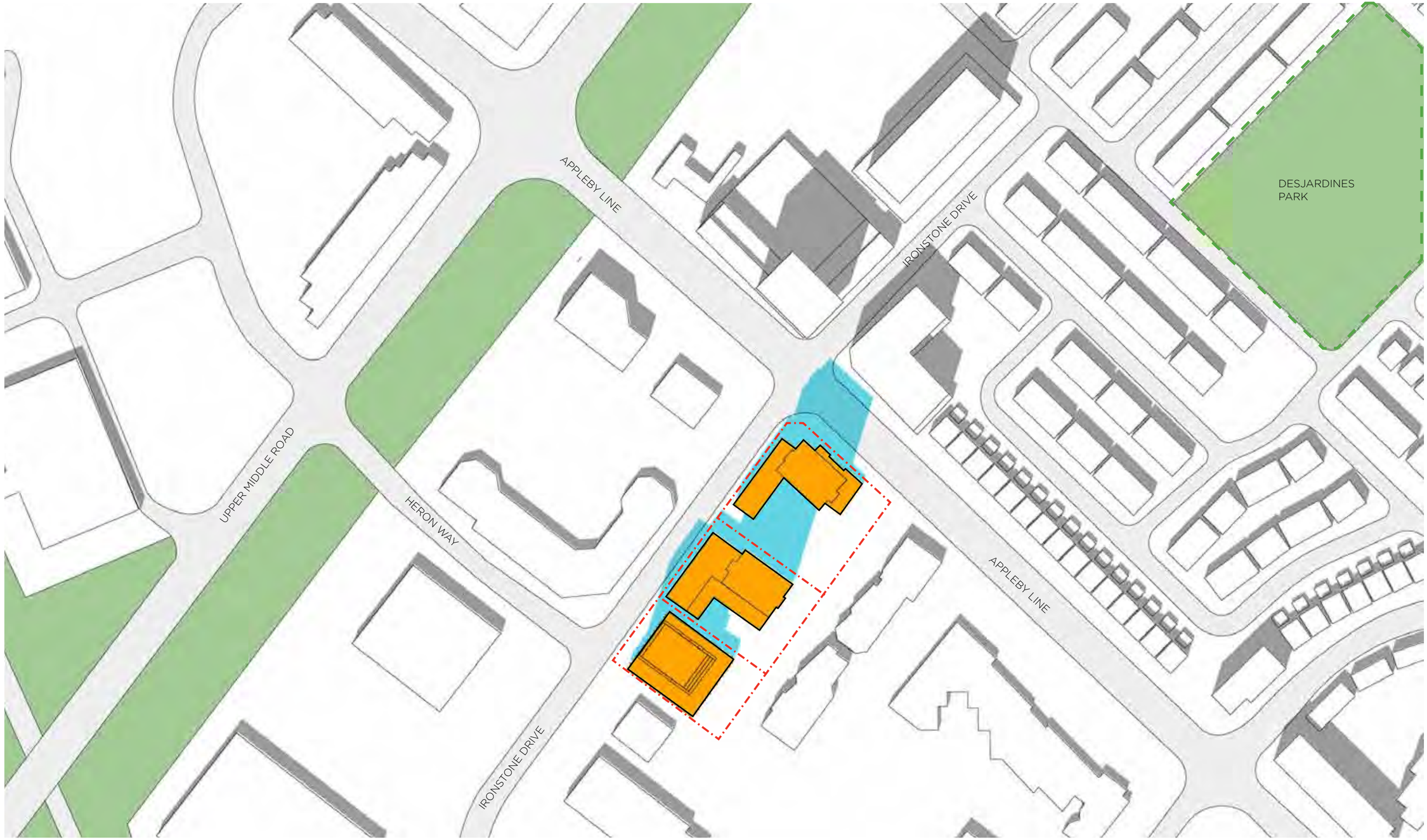
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10 100 meters

PROPERTY LINE
PROPOSED BUILDING
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SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



2:00PM

1 : 2000

20

10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
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PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



3:00PM

1 : 2000

20

10 100 meters

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MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



4:00PM

1 : 2000

20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
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- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



5:00PM

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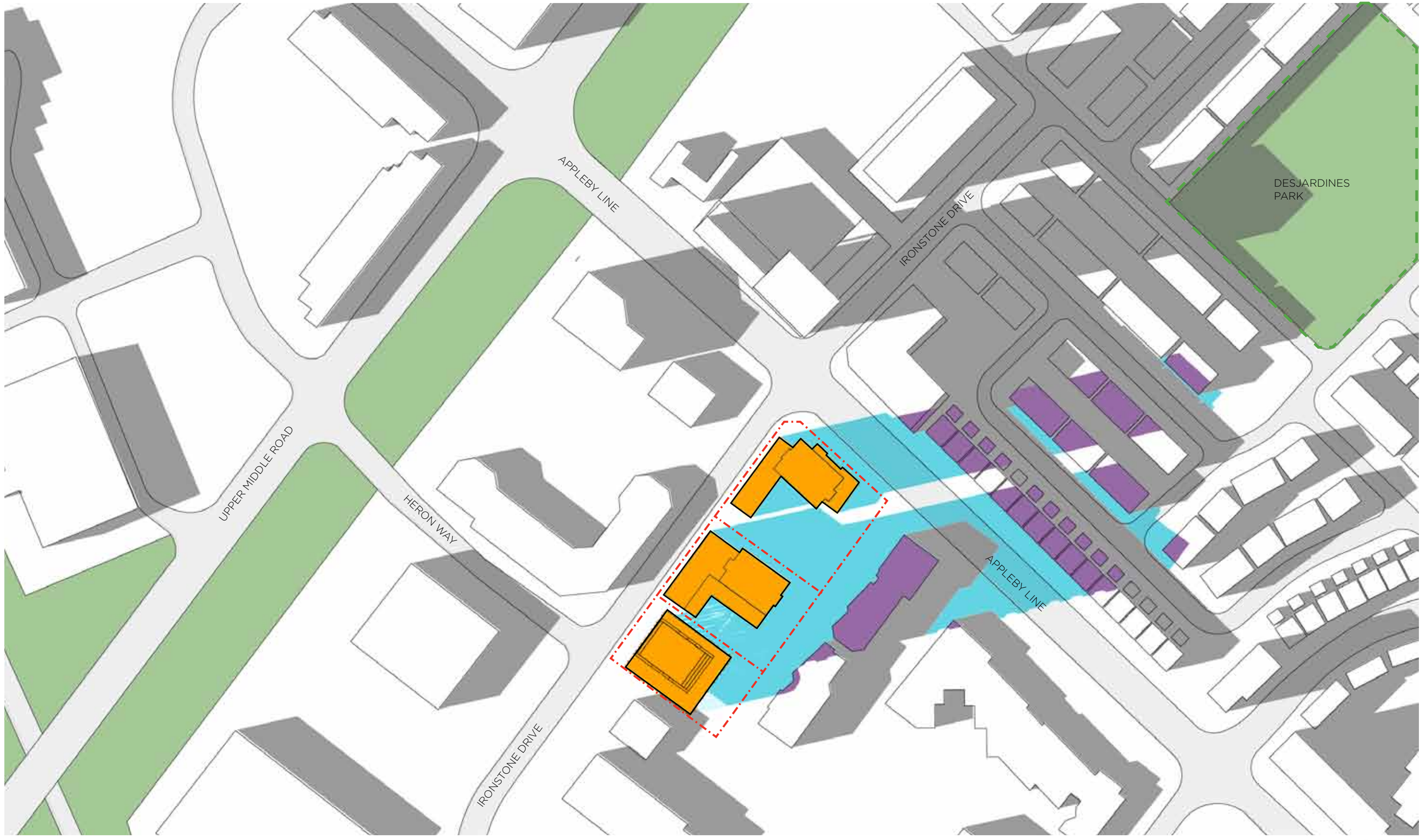
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10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



6:00PM

1 : 2000

20

10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

MARCH 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



8:00AM

1 : 2000

20

10 100 meters

- PROPERTY LINE
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- PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



9:00AM

1 : 2000

20
10 100 meters

- PROPERTY LINE
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JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



10:00AM

1 : 2000

20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021

APPLEBY LINE

IRONSTONE DRIVE

DESJARDINES
PARK

UPPER MIDDLE ROAD

HERON WAY

IRONSTONE DRIVE

APPLEBY LINE

11:00AM

1 : 2000

20

10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



12:00PM

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JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



1:00PM

1 : 2000

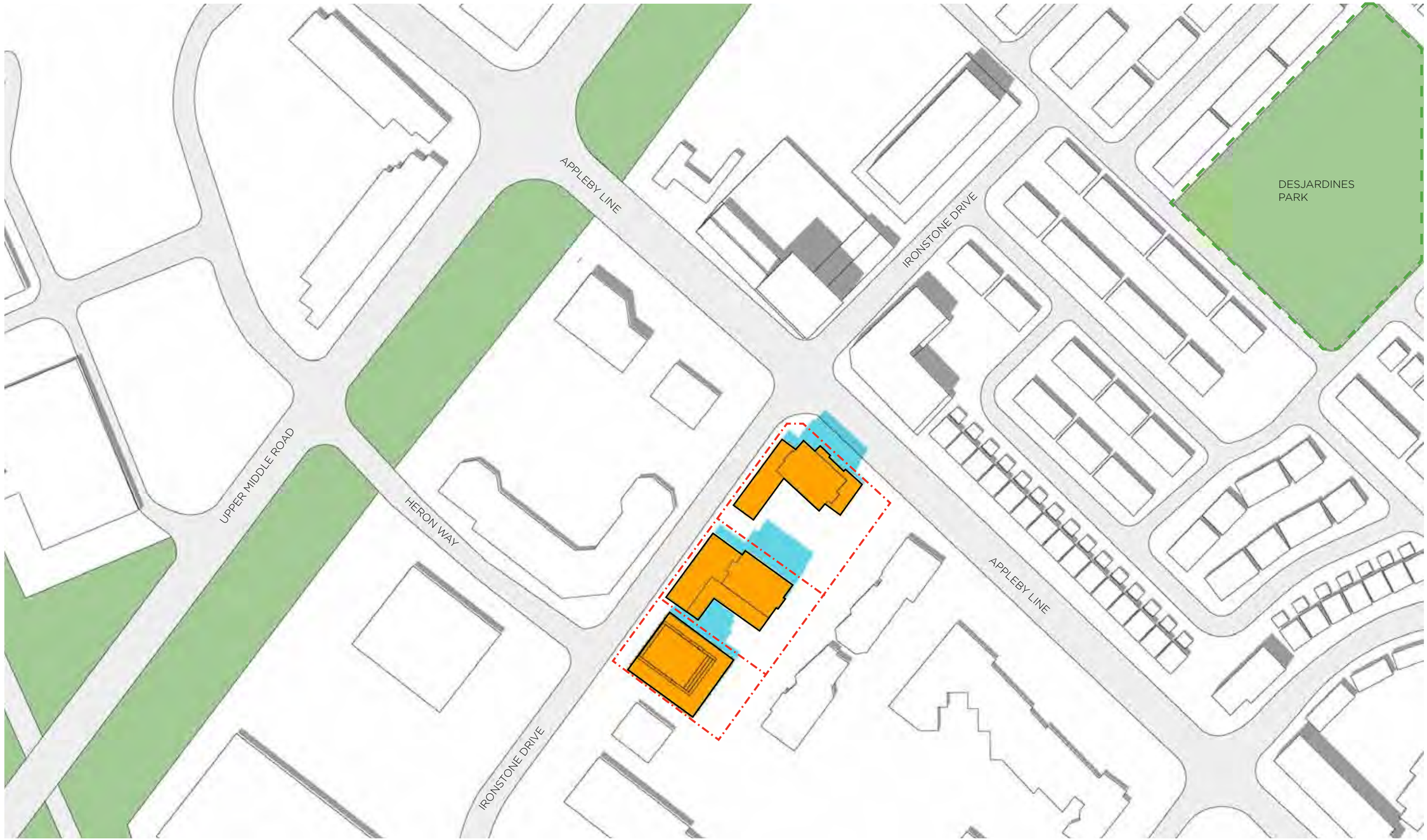
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10 100 meters

PROPERTY LINE
PROPOSED BUILDING
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SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



2:00PM

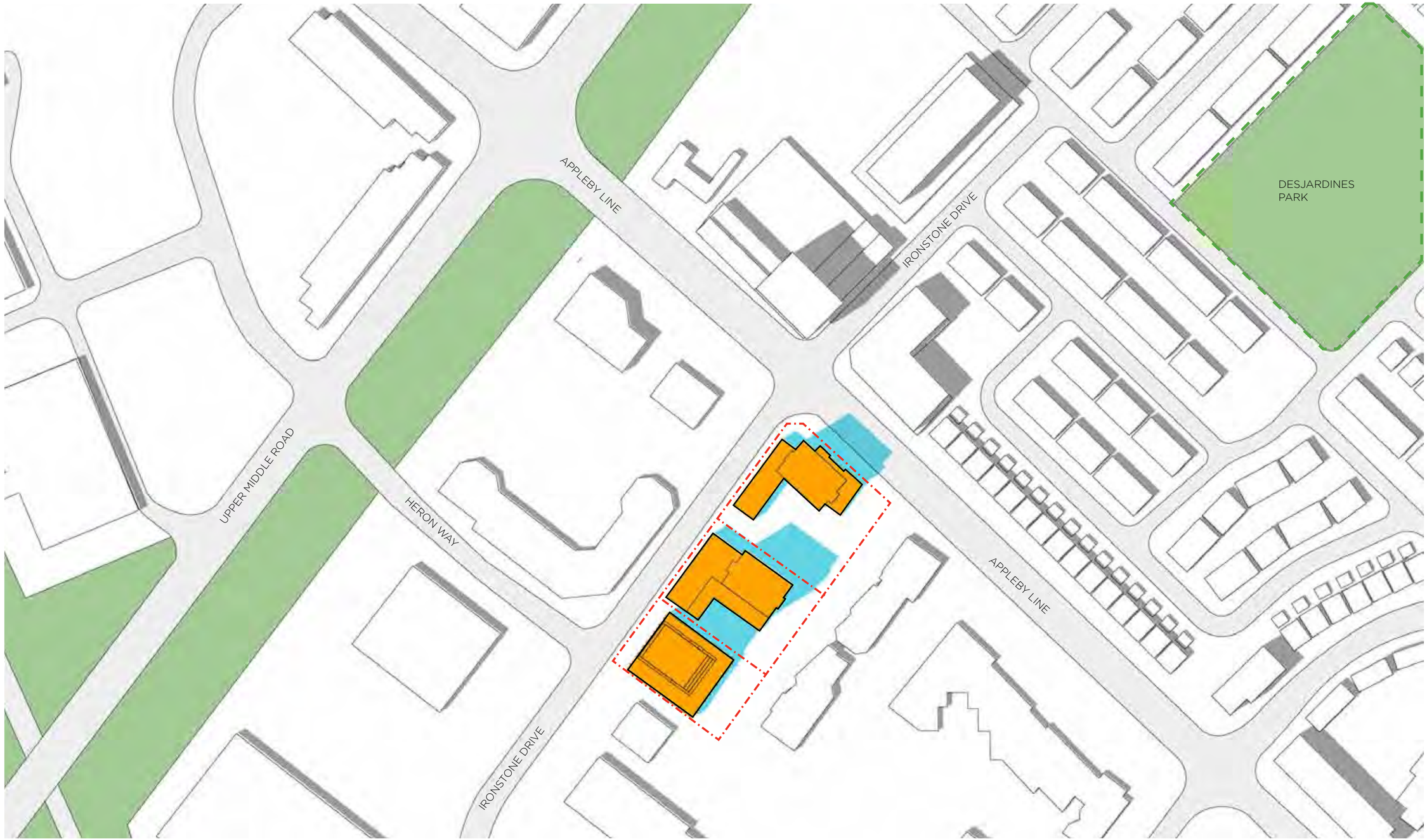
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20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
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SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



3:00PM

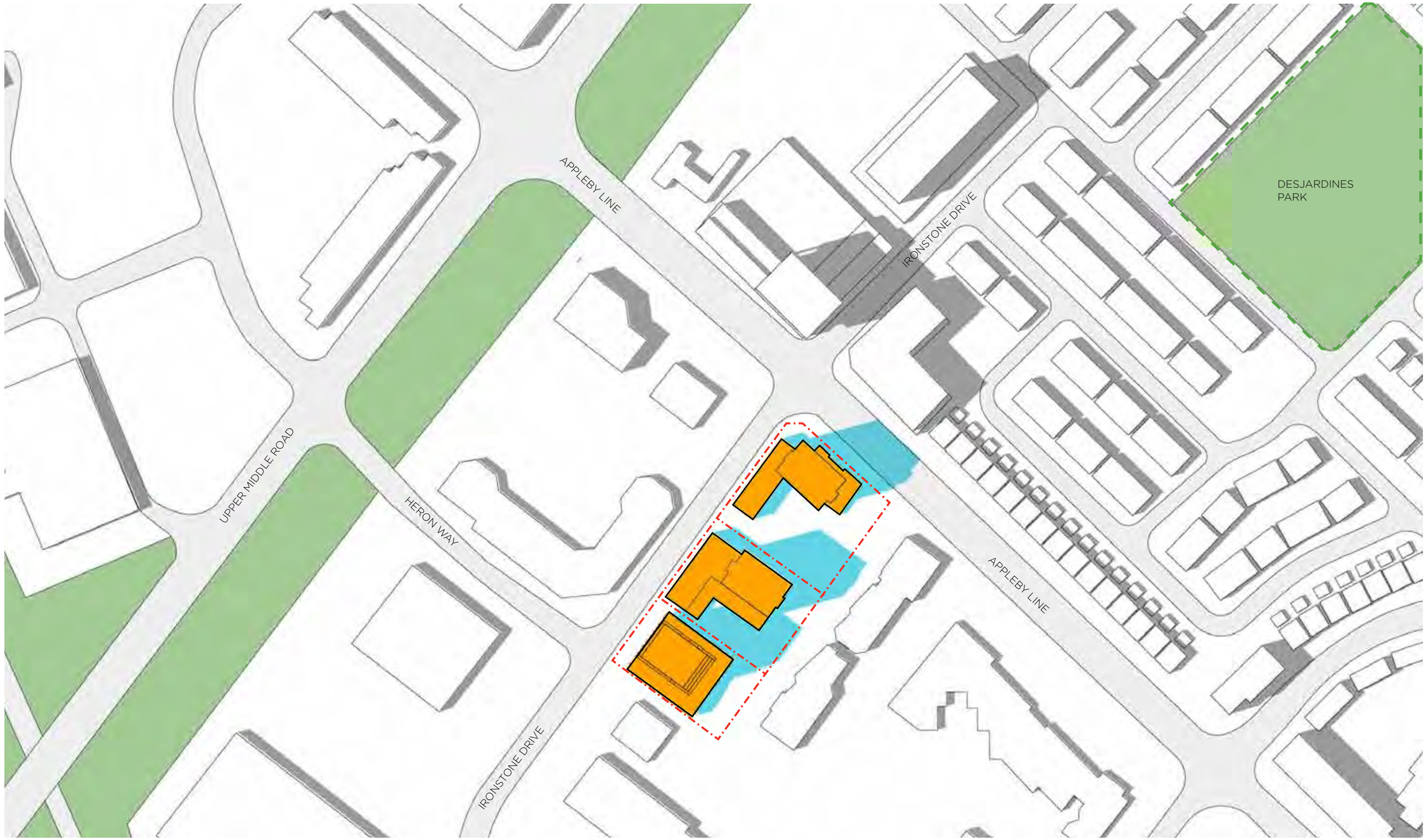
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10 100 meters

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JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



4:00PM

1 : 2000

20

10 100 meters

- PROPERTY LINE
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- PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



5:00PM

1 : 2000

20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



6:00PM

1 : 2000

20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



7:00PM

1 : 2000

20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

JUNE 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



9:00AM

1 : 2000

20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



10:00AM

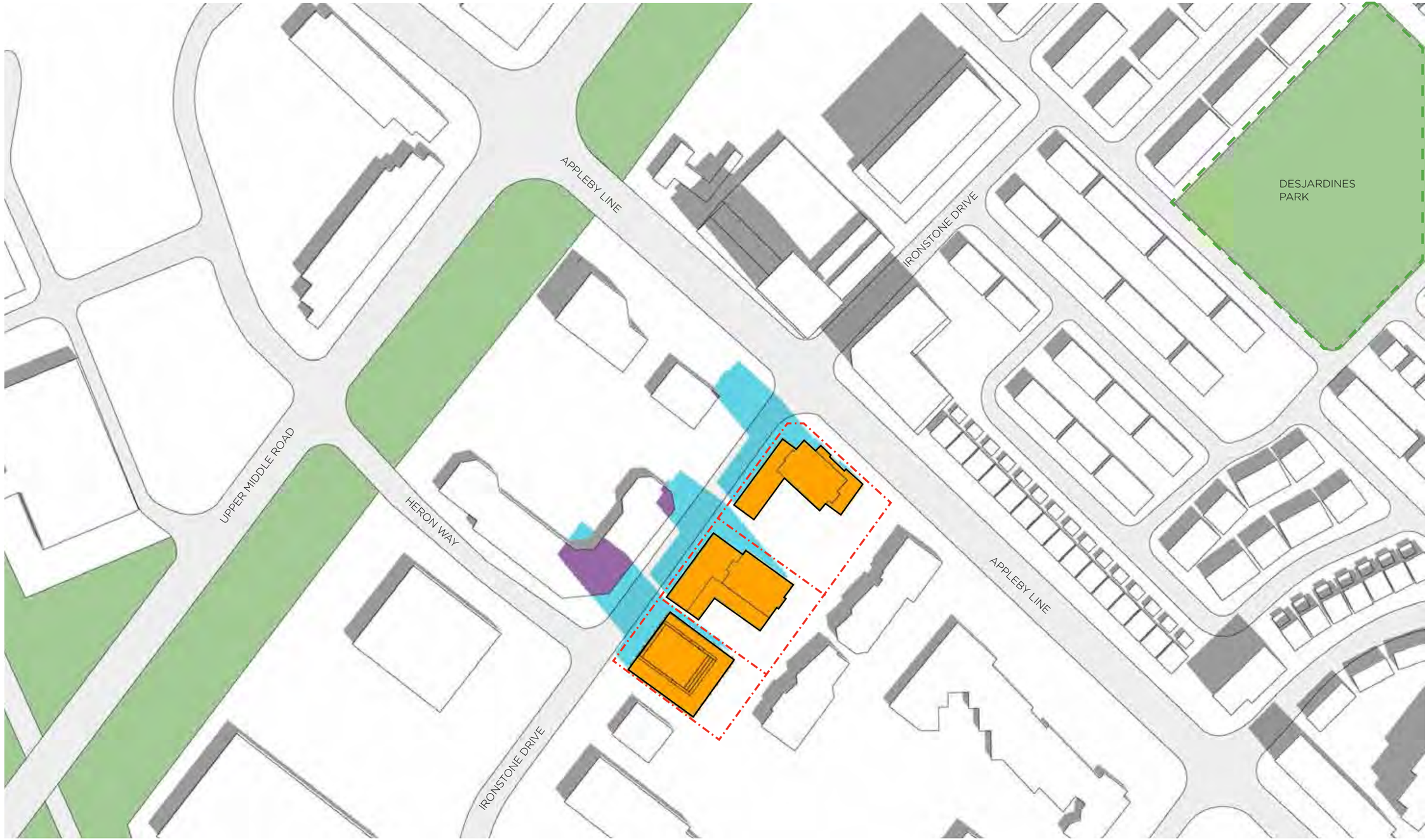
1 : 2000

20
10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



11:00AM

1 : 2000

20

10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



12:00PM

1 : 2000

20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



1:00PM

1 : 2000

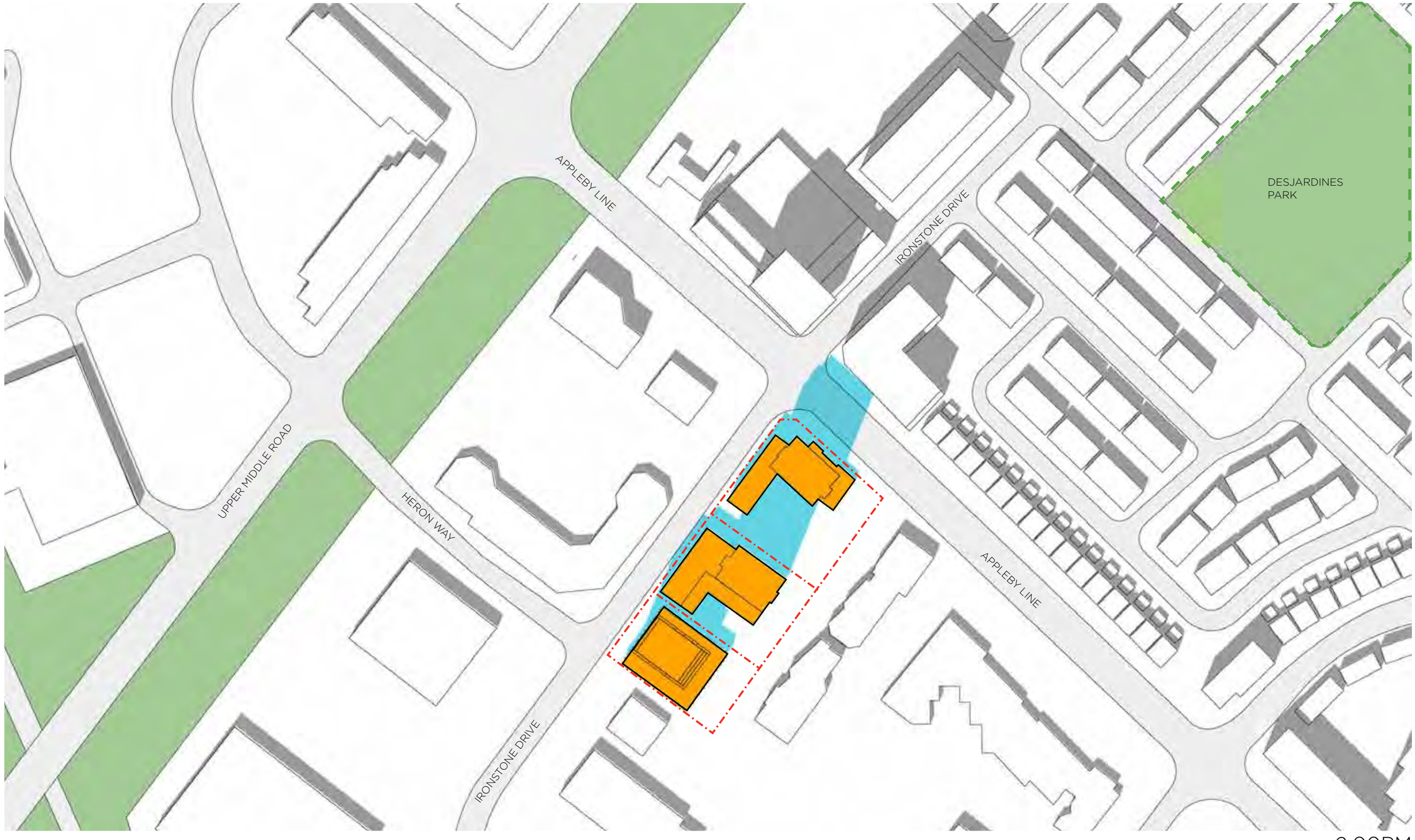
20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



2:00PM

1 : 2000

20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



3:00PM

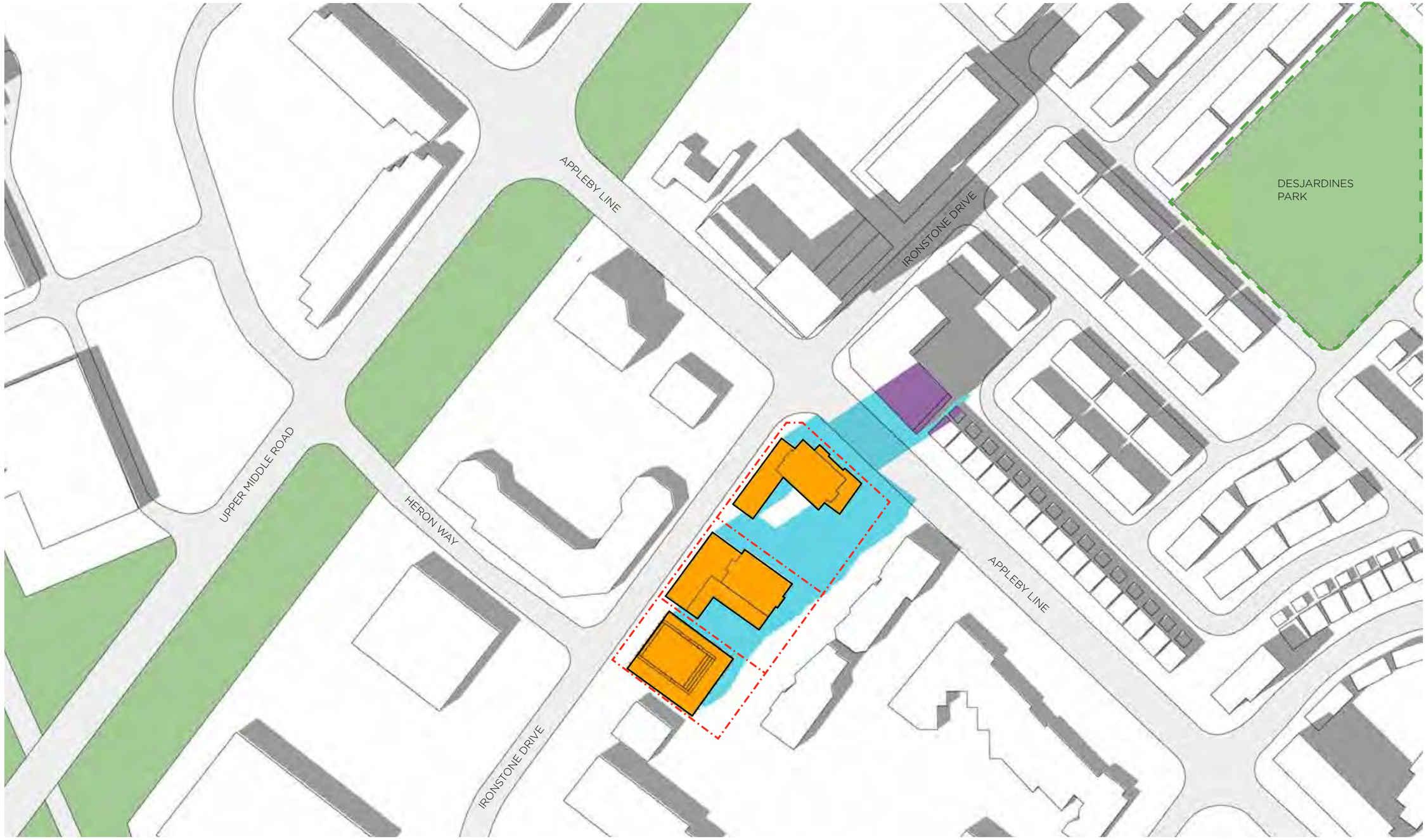
1 : 2000

20
10 100 meters

PROPERTY LINE
PROPOSED BUILDING
SHADOW FROM PROPOSED BUILDING ON GROUND
SHADOW FROM PROPOSED BUILDING ON ROOFS
PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



4:00PM

1 : 2000

20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



5:00PM

1 : 2000

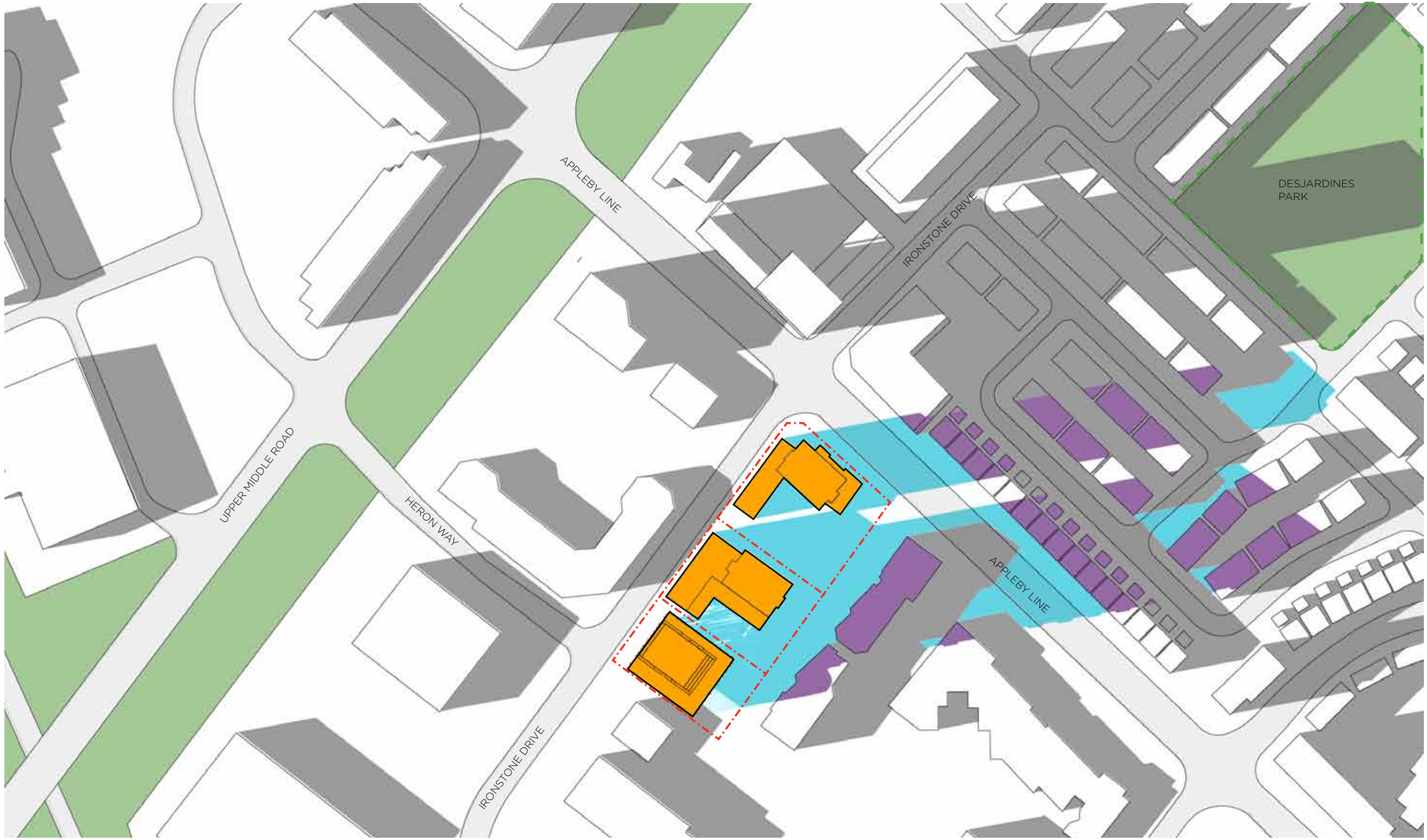
20

10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



6:00PM

1 : 2000

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10 100 meters

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- PROPOSED BUILDING
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- PARK

SEPT 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



11:00AM

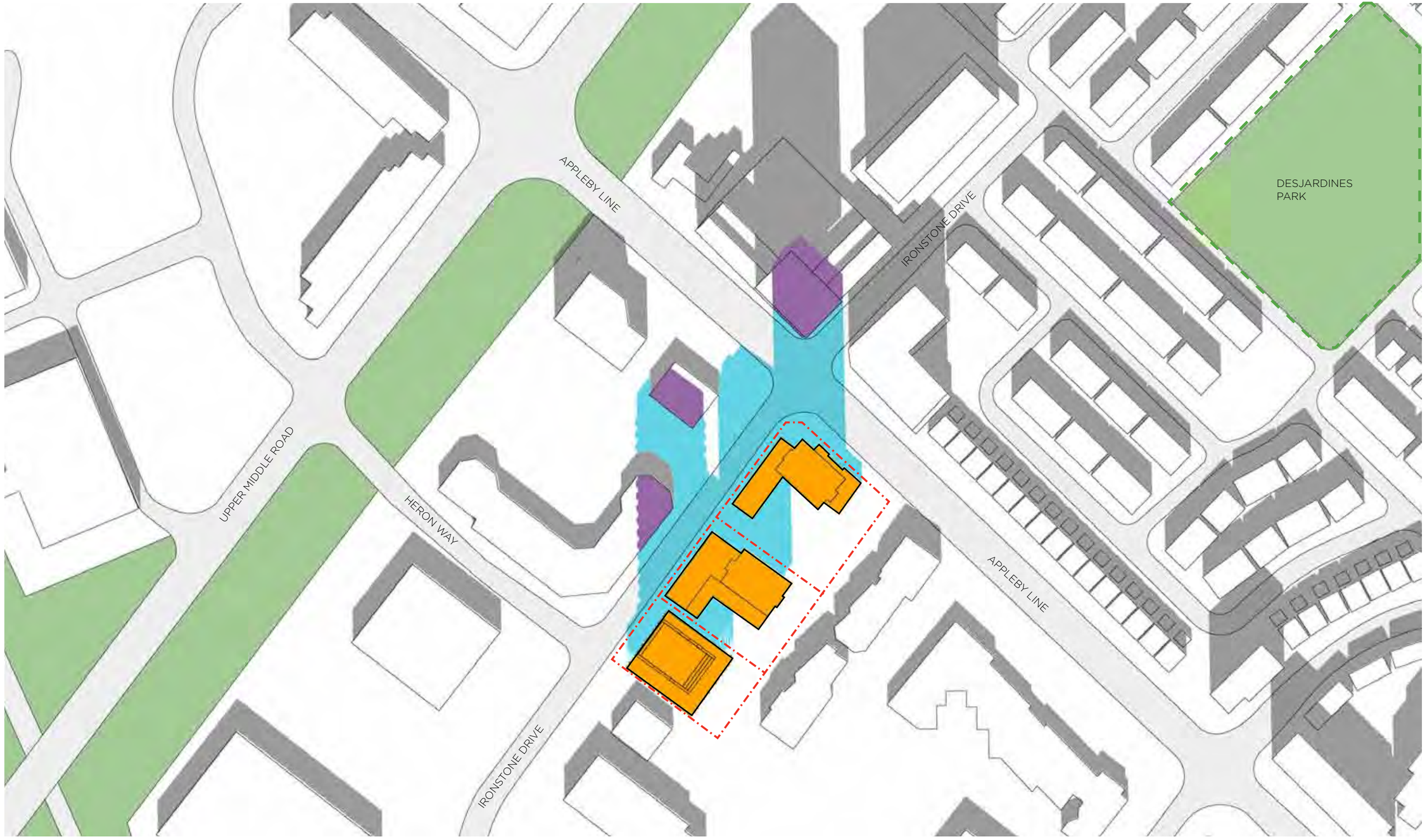
1 : 2000

20
10 100 meters

- PROPERTY LINE
- PROPOSED BUILDING
- SHADOW FROM PROPOSED BUILDING ON GROUND
- SHADOW FROM PROPOSED BUILDING ON ROOFS
- PARK

DEC 21

SHADOW STUDY
17024 1900 APPLEBY LINE
MAY 11, 2021



12:00PM

1 : 2000

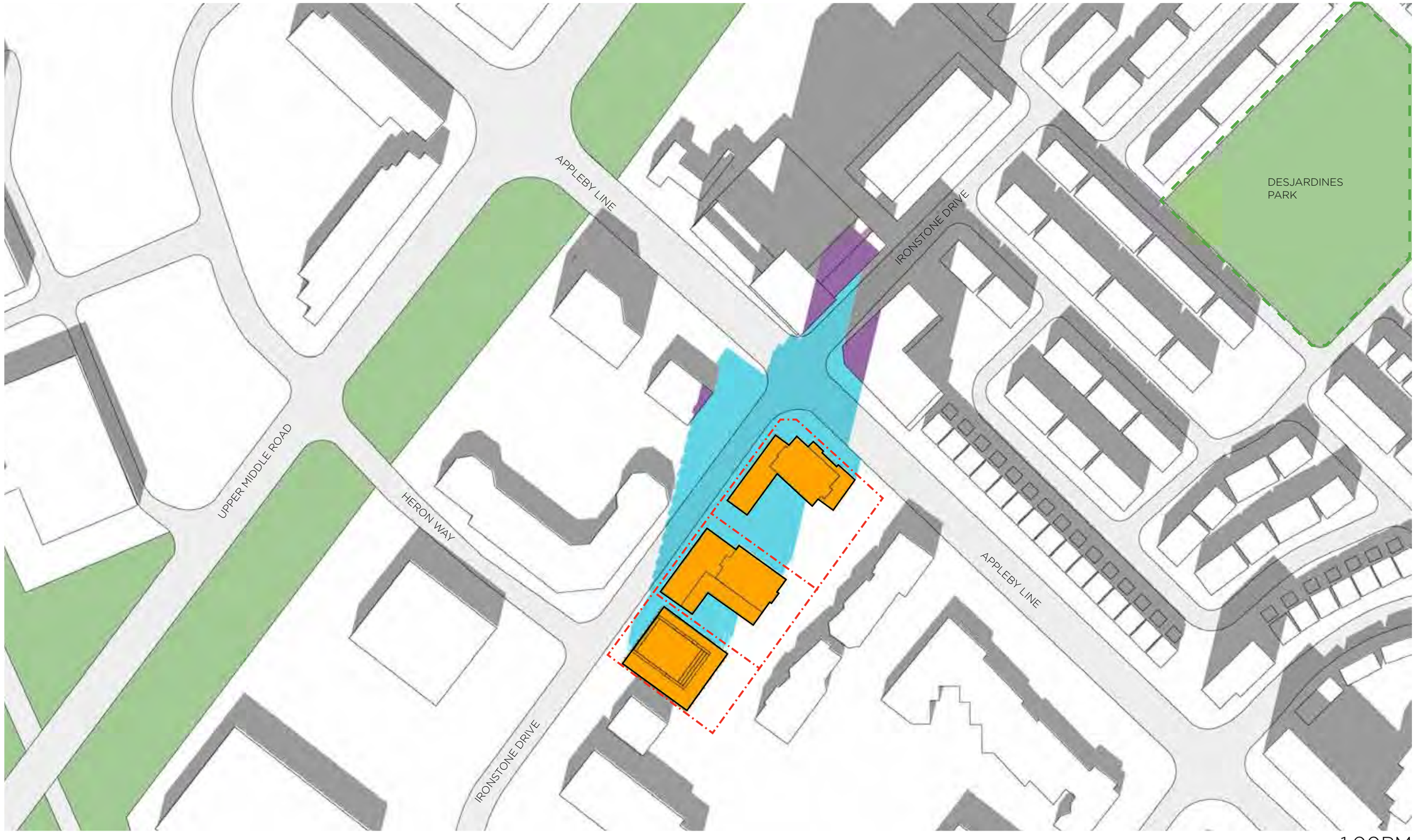
20

10 100 meters

- PROPERTY LINE
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- SHADOW FROM PROPOSED BUILDING ON ROOFS
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DEC 21

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MAY 11, 2021



1:00PM

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