



223 St. Andrew Street E, Fergus

URBAN DESIGN BRIEF

MMDG Health Services Inc.



FILE NO. 17389F

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Introduction

MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC Planning) has been retained by MMDG Health Services Inc., to assist with a Zoning By-law Amendment to permit the mixed use redevelopment of the property municipally addressed as 223 St. Andrew Street E, Fergus in Centre Wellington (subject property). The proposal includes the demolition of existing structures on site and development of a new five storey building that will be comprised of commercial and residential uses. A total of 17 residential units are proposed with commercial uses at ground floor.

This Urban Design Brief is a requirement as part of the Zoning By-law Amendment application, and provides an overview of the design elements included in the proposed redevelopment. The primary intent of this Design Brief is to summarize the redevelopment concept, confirm the overall design principles and objectives, and analyse the proposed concept plan in the context of the Township of Centre Wellington Official Plan and Draft Urban Design Guidelines.



223 ST. ANDREW STREET E

1.0

Overview & Context

The subject property consists of one parcel of land located at 223 St. Andrew Street E. The property is approximately 975.67m² in area, with approximately 25 metres of frontage on St. Andrew Street and 38 metres of frontage on Gowrie Street.

The subject property is occupied with a two storey building and an accessory structure. The remaining property consists of open space and parking. The property is currently used as commercial/retail and residential. MMDG Health Services is proposing to demolish both buildings and redevelop the property with a new mixed-use building with a total of 17 residential units and two commercial units.

The subject property is designated 'Central Business District' in the Centre Wellington Official Plan and is located in the Fergus downtown. The planning framework for the use of the subject property is to accommodate growth through

intensification projects in order to provide a range of land uses including residential and commercial. The subject property forms part of a growing community within the County, and if developed as proposed, would contribute to the planned community structure as well as support overall housing initiatives.

The surrounding area is mainly characterized by residential and commercial development, generally consisting of single-detached dwellings and various commercial and office uses within the downtown to the west. The subject property is well located relative to the commercial area in downtown Fergus and is in close proximity to various road networks, including St. Andrew Street, St. David Street (Highway 6), and Garafraxa Street which provide connections to the broader County and Provincial road network. The surrounding area is described below.

- NORTH:** Abutting the subject property is a one storey commercial building, located at the St. Patrick Street E and Gowrie Street intersection. Further north consists of single detached dwellings.
- EAST:** A one storey dwelling is located adjacent to the subject property with frontage on St. Andrew Street E. The area to the east is predominately comprised of single detached dwellings.
- SOUTH:** South of the subject property are commercial establishments and residential dwellings. South of St. Andrew Street E is the Grand River.
- WEST:** West of the subject property is downtown Fergus, which consists of commercial buildings ranging in height from one to three storeys.

Context Map



Subject property noted in red.

Downtown Fergus

Downtown Fergus is predominantly found along St. Andrew Street, bordered by Tower Street to the west and St. David Street to the east. This core area is the commercial centre of the downtown with stores and offices fronting the street. The downtown area extends beyond this centre, to both the east and west, but is dominated by low density residential uses. St. David Street North and Bridge Street are part of the provincial Highway 6 corridor and carry a high volume of traffic, including transport trucks, which impacts the quality of the pedestrian comfort level along these streets. The number of offices and small businesses within downtown Fergus results in pedestrian traffic that is 'destination focused', as well as a strong vehicular presence along the main streets, as people tend to drive and park in close proximity to their destination.

Downtown Fergus is comprised of stone buildings that are typically two to two and a half stories in height. The consistent massing and setback gives the core of the downtown a strong patterned built environment. To the east and west of the core, the building stock is predominantly comprised of single detached dwellings. The area is intersected by driveways, lanes, and parking lots which interrupt the rhythm of the street.

Urban Pattern

The current urban fabric of the subject property and surrounding area is, for the most part, lots and blocks laid out within a grid pattern of streets. The subject property represents an underutilized parcel within the downtown area and has tremendous redevelopment opportunity. The property is well positioned within the downtown with access to the existing sidewalk system, connecting the lands to the surrounding neighbourhood, downtown core and other open space uses.

The existing urban pattern promotes walkability and provides easy and convenient walking routes to trails and nearby amenities. No new streets or lanes are proposed as part of the redevelopment that would alter the existing urban pattern. The proposed redevelopment would enhance the public streetscape, appropriately utilize lands within the downtown for commercial and residential use, and encourage pedestrian activity by animating the sidewalk along Gowrie Street and St. Andrew Street, introducing pedestrian oriented elements including street lighting and seating, as well as complementary building design.



LOOKING EAST ON ST. ANDREW STREET E



LOOKING WEST ON ST. ANDREW STREET E (DOWNTOWN FERGUS)



LOOKING NORTH TOWARDS GOWRIE STREET (SUBJECT PROPERTY)

2.0

Proposed Development

The owner is proposing an infill development on the subject property, which includes the demolition of existing structures on site and the construction of one new building. The proposed redevelopment will consist of a five storey mixed-use commercial and residential building providing 17 rental units and two ground floor commercial units. Vehicular access will be provided from Gowrie Street, which will be located to the rear of the proposed building. The parking area will provide a total of 12 parking spaces. There is an existing sidewalk network along Gowrie Street and St. Andrew Street which will provide pedestrian access to the building as well as the construction of a pedestrian pathway connecting the rear building entrance to the parking area.

Access to the road system and active transportation networks will be provided via the driveway that connects to Gowrie Street as well as building entrances. Ultimately the proposed redevelopment is intended to increase housing stock, provide more housing options, and support live-work opportunities in downtown Fergus that will contribute to the local economy.



CONCEPT RENDERING OF PROPOSED REDEVELOPMENT

Conceptual Plan

The proposed development for the property is a high quality mixed-use multiple-residential development that will provide new business opportunities and residential units within the Fergus Central Business District.

The proposed redevelopment integrates the following principle elements:

- A mix of residential and commercial units.
- 17 residential units proposed in the form of purpose built rental units to assist in the provision of attainable housing forms.
- 2 commercial units proposed at grade along the road frontage.
- A total of 12 parking spaces proposed in the form of surface parking located at the rear of the site. The parking includes 1 barrier free space.
- Secure indoor bicycle storage.
- One vehicular access point from Gowrie Street providing direct access to the parking area.
- Direct pedestrian connections from the public sidewalk along Gowrie Street and St. Andrew Street E with sidewalk upgrades.
- A well defined building base and prominent building entrances providing for an attractive streetscape along the street frontage.
- Stepbacks and building articulation to break-up the building mass.
- Private amenity space in the form of balconies for the residential units.
- Large windows to provide eyes on the street.
- A mix of building materials and colours which complement existing materials and colours of existing buildings in the downtown.
- A pedestrian arcade at ground level to enhance the pedestrian environment.

The intent is to develop the subject property with an attractive and cost-efficient building to provide rental housing at a more attainable price point within the downtown core of Fergus and the Township.

3.0

Vision & Design Objectives

The concept plan reflects the vision for the subject property as a mixed-use development that features a high quality design with an engaging pedestrian realm. The site design will continue to evolve and final elevations will be determined through the site plan process.

The following design objectives continue to inform the concept plan:

- Create a strong visually appealing street edge along St. Andrew Street that will improve the streetscape in downtown Fergus.
- Provide for development that will be supportive of alternative transit modes, and will encourage future residents to walk to and from nearby residential, commercial, office and retail uses, services and public amenities.
- The building will be oriented towards the downtown frontage, minimizing impacts on surrounding low density uses.
- Introduce additional building height and parking requirement reductions within lands designated central business district commercial in a manner that is sympathetic to surrounding uses.
- Create a development which incorporates sustainable design principles and techniques.
- Encourage architecture that recognizes the surrounding area, while creating a new streetscape that would be a catalyst to future development in the area.
- Contribute a variety of uses to the neighbourhood by introducing active uses at grade, such as retail units.
- Provide a development that, through the combination of massing, orientation, pedestrian entrances, architectural elements, detailing, and material selection, will result in a positive pedestrian experience along street frontages, and between buildings.

Built Form, Massing and Articulation

The massing of the proposed redevelopment is broken up using a number of techniques including changes in building materials/colours; projections; recessions; porticoes; and varying window sizes. The building will be oriented to the downtown frontage along St. Andrew Street E, helping to minimize the visual impact of the additional building height proposed. The building height helps to ensure a human scale of development and provides visual variety. The proposed development has been designed with consideration to the existing built form context with the pedestrian prioritized.

Character and Architectural Treatment

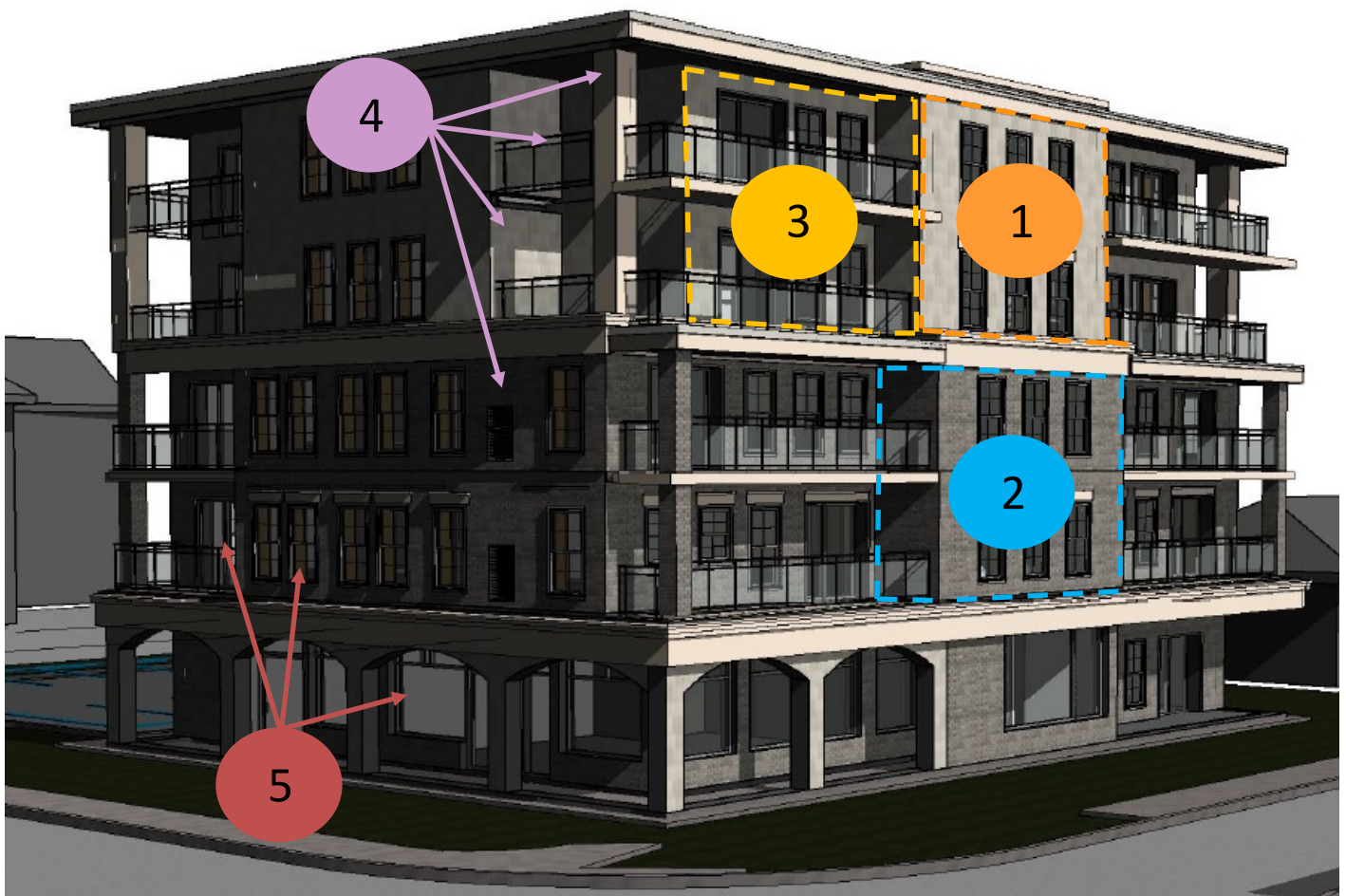
The proposed redevelopment will assist in the continued intensification and development in the downtown core and on lands within the designated Central Business District. The building design demonstrates a contemporary architectural expression. The development will be constructed of high quality materials and provides an attractive design that will be reasonably priced.

Selective use of building materials and colours and the incorporation of architectural articulation all add to the visual interest of the development and will result in an attractive streetscape. The front building entrances are well defined and highly visible from the public realm. High quality materials will be incorporated into the façade, resulting in an attractive design. Repetition of lines and windows through both vertical and horizontal articulations will help to break up the building mass and create visual interest.



Massing Techniques

- 1 RECESSOPM
- 2 PROJECTION
- 3 STEPBACK
- 4 CHANGES IN BUILDING MATERIALS
- 5 VARYING BALCONY AND WINDOW SIZES



CONCEPT RENDERING OF PROPOSED REDEVELOPMENT

Scale & Transition

A five storey building within the Central Business District (downtown) is an appropriate mid-rise height which transitions well with the existing built forms. In order to help breakup the massing of the building, the design has included stepbacks, projections and recessions. The proposed height will help to frame the street and will form an appropriate transition to planned higher density development within the downtown as well as to other lower density built forms within the residential area. The design focuses the mass of the building to address the public streetscapes and respond to the character and rhythms of adjacent areas. The arcade at ground level also helps to provide a welcoming pedestrian environment.

An angular plane analysis has been prepared in support of the proposed development demonstrating that the proposed building falls well within the ideal 45-degrees. The angular plane has been measured from the property line at 181 St. Andrew Street E, opposite the subject property. The approach to the angular plane analysis is intended to demonstrate the proposed development recognizes and preserves sight lines along the Gowrie and St Andrew streetscapes. .



ANGULAR PLANE OF PROPOSED REDEVELOPMENT

Scale & Transition

A shadow study was completed for the proposed development, attached as Appendix C. The shadow study demonstrates some shadowing on adjacent properties. The timeframe the potential shadowing is the early spring, late fall, and early winter in the late afternoon. The anticipated shadows during these months are typical for a downtown area. There is also a row of large coniferous trees along the western property line which already casts a shadow on the adjacent property. The anticipated shadows are not anticipated to cause adverse impacts given their anticipated time-frame and the existing conditions. The majority of the daytime will result in no shadowing on the adjacent residential properties and will mostly fall on the development lands.

Heritage Compatibility

A Heritage Impact Assessment was required to determine the level of impact the proposed redevelopment will have on the adjacent properties that are listed on the Centre Wellington Heritage Register. The evaluation determined that the proposed redevelopment will result in minimal adverse impacts to heritage properties and the downtown Cultural Heritage Landscape. The HIA provided recommendations for the protection and conservation of heritage resources. The HIA recommends the following measures:

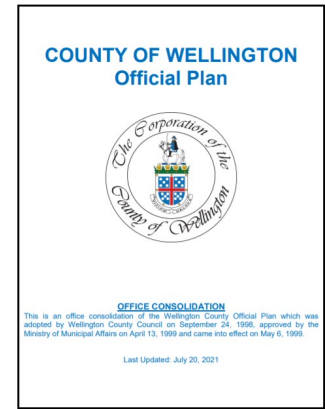
- A Vibration Monitoring Plan be completed;
- Certification by an engineer that the proposed development will be constructed in a way that will avoid impacts related to grading and runoff;
- A temporary construction fence be installed around the periphery of the development site; and
- Material storage and parking of construction equipment is prohibited in the immediate area.

Location of Heritage Properties



4.0 Policy Analysis

Centre Wellington Official Plan



The subject property is designated Central Business District on Map A-1 of the Official Plan. The Central Business District designation is intended to accommodate a wide range of uses including retail, office, service, administrative, religious, cultural and entertainment uses. In addition, residential development is permitted within this designation, provided that retail, office, or service commercial uses are located at street level. The Central Business District is intended to accommodate the most intensive development within the urban centres, thus making the subject property an optimal location to propose a higher-density, mixed-use development.

Section **C.15.3** of the Township Official Plan provides direction for detailed urban design guidelines and policies which generally encourage a higher standard in the physical design of the built and natural environment for areas in existing districts, specifically the Central Business District. The following policies are relevant to this project.

C.15.3.4.: New development located within an existing established district or neighbourhood will be designed as an integral part of the area's existing larger pattern of built form and open spaces such as building mass, height, proportion, enclosed volume and position relative to street and site.

Design Response: *The various considerations included in Policy C.15.3.4 have been addressed through the proposed design of the site. This includes improvements to the aesthetic quality of the site from the public realm; the provision of safe, comfortable and functional site circulation; the incorporation of compatible materials, architectural detailing, and building massing; and the orientation of the proposed built form and site design.*

C.15.3.5. & C.15.3.6.: The preservation of the existing pattern of setbacks in the existing urban area shall be supported so that new buildings do not substantially alter the street relationship. New developments within the Central Business District should support the creation of continuous building façades along streets frequented by pedestrians.

Design Response: *The proposed building façades and street setbacks have been designed to provide a continuous building form along the street frontages and tie into the existing context.*

C.15.3.7.: The street façades of publicly accessible buildings should be designed to encourage and facilitate public accessibility.

Design Response: *The proposed building and entrances have been oriented to the street. The proposed redevelopment will have direct access to the public sidewalk system and include an arcade to encourage the safe movement of people and offer enhanced pedestrian connections. The proposed building façades include a defined building base which further enhances the streetscape.*

C.15.3.8.: Except in the industrial designations building functions that do not directly serve the public, such as loading bays, and blank walls, should not be placed directly along the street.

Design Response: *The proposed redevelopment does not propose to include blank walls visible from the public realm. All parking is located at the rear of the property.*

C.15.3.9.: Community facilities, retail shops and similar uses on the ground floor should be located at grade and approximately level with the adjacent sidewalk.

Design Response: *The proposed development will provide commercial/retail uses within the ground floor and located along the public street frontage on St. Andrew Street. The building design includes accessible pedestrian access and a natural delineation between the public and private realms.*

C.15.3.10.: Signage should clearly indicate street address and/or building, business or tenant name, and should integrate with the façade design.

Design Response: *The proposed façade design clearly indicates and incorporates the street address. Additional signage for specific uses will be included to promote wayfinding and identify the commercial/retail businesses.*



**CURRENT CONDITION
OF SUBJECT LANDS**



**CONCEPT PLAN
OF PROPOSED
REDEVELOPMENT**

Centre Wellington Draft Urban Design Guidelines

In 2015 the Township of Centre Wellington published draft Urban Design Guidelines (UDG's) which contain guiding design principals as well as more specific guidelines that apply to various types of development and/or various locations within the Township. These guidelines are to be reviewed and evaluated with all planning processes and approvals. The purpose of the draft UDGs is to build on intentions and aspirations of the Township to create a community that conserves its cultural and natural heritage resources, while allowing for contextually sensitive growth and development.

Design Guidelines for Downtowns and Residential Transition Areas

Downtown and Residential Transition Areas include areas designated as 'Central Business District' by schedule A-1 of the Official Plan. The redevelopment concept proposed for the subject property meets the design vision as follows:



- the proposed development will enhance the pedestrian realm and be an attractive development that enhances the existing downtown streetscape.
- The overall site has been designed to create visual interest and to reinforce a human scale. This has been done through the variation in building heights and recessions as well as the arcade.
- Primary building entrances have been located visible from and directly accessible from the public street and sidewalks, parking lot, and internal walkways.
- Sidewalk improvements will be made along Gowrie Street and St. Andrew Street to create a safe pedestrian environment. All parking for the building will be provided on site in a dedicated parking area, including one barrier free parking stall.
- The site has been designed with reductions in parking and incorporation of TDM measures to reduce the demand of private vehicles.
- Landscaping will be provided in the form of trees and minor shrubs, located along the western property line, as well as internal to the site. Vegetation will be selected with regard to their tolerance to urban conditions including road salt and drought. Landscape and hardscape elements will be designed to provide colour, having regard for seasonal changes.
- Street design will be addressed through the prioritization of walkability and transit that links to the broader sidewalk and pathway system. The streetscape will be enhanced with safe pedestrian pathways, lighting, wayfinding and high quality architecture to create a sense of place and act as a focal point for the neighbourhood.
- Lighting will be designed appropriate to the street character with a focus on pedestrian areas, including building entrances, parking and walkways.

- The built form will create an identifiable character with similar building materials, colours and finishes throughout the development. The proposed redevelopment represents the first development opportunity in this area. Design of this site will establish a standard for other development opportunities. The redevelopment proposed reflects other examples of intensification in the Township. No adverse impacts to adjacent properties are identified in the technical studies and the highest standard of building materials and architectural style are proposed.
- The proposed redevelopment focuses height and mass where it provides the best public realm opportunities while minimizing impacts on surrounding lands. Massing techniques are incorporated into the building design including projections, recesses, variation in colour, materials and texture, all of which help to reduce and diversify the massing of buildings. The façades will be designed to provide transparency, architectural continuity and visual interest. No blank walls are proposed. As a result of proposed windows and balconies there will be sufficient natural surveillance onto the surrounding public street.
- The proposed building will be a similar shape and length to existing buildings within the downtown area, reflective of a rectangular form.
- The building will be constructed with a neutral palette and will include a stone and concrete facade. The use of stone is consistent with the historic character of Fergus and surrounding buildings.

Overall, the proposed design represents a compact form of development within the built-up area of the downtown, where infrastructure and public services are available. The redevelopment will support and enhance pedestrian connections, and provide for a safe and enjoyable public realm. The proposed built form will create a focal point in the neighbourhood that will be identifiable and be of high quality design, contributing to a live-work community.

5.0

Conclusion

The proposed redevelopment and concept plan will contribute positively to the Township, specifically the Fergus Central Business District. The development will enhance the downtown in terms of design, pedestrian realm, and sense of place. Overall, the proposed redevelopment represents a significant investment in Fergus and will support the growth of the community by providing more residential units and employment opportunities, in a high-quality development.

In summary, the proposed redevelopment will:

- Capitalize on the existing location of the subject property in proximity to the downtown core and within the designated Central Business District;
- Provide for intensification and infill that is sensitive to the existing and planned surrounding context;
- Create a strong visually appealing street edge;
- Result in a more efficient and sustainable use of the property and optimizes the land use potential;
- Increase the variety of dwelling unit types within Centre Wellington and Fergus by offering more multiple residential units at an attainable price point; and
- Support the economic diversification and growth of Centre Wellington, promoting it as a destination for residents, employers, employees, and visitors.

In our opinion the proposed redevelopment is appropriate for this location and will contribute positively to the character and built form of downtown Fergus.



Appendix A | Site Plan

ROW	REGULATION	REQUIRED	PROPOSED	COMPLIES
a)	Minimum Lot Area	No Minimum	981.27 m ²	YES
b)	Minimum Lot Frontage	No Minimum	25.13 m (St. Andrew St.)	YES
c)	Minimum Front Yard	No Minimum	0 m (St. Andrew St.)	YES
d)	Minimum Rear Yard	No minimum except where a rear yard abuts a Residential Zone, the minimum shall be 3.0 metres (9.8')	20.29 m (St. Andrew St.)	YES
e)	Minimum Interior Side Yard	No minimum except where an interior side lot line abuts a Residential Zone, the minimum shall be 3.0 metres (9.8')	1.306 m (St. Andrew St.)	YES
f)	Maximum Lot Coverage	90%	40%	YES
g)	Minimum Exterior Side Yard	No Minimum	0 m (Gowrie St.)	NO
h)	Maximum Building Height	3 storeys but not more than 11 m (36ft)	14.95 m	NO
i)	Buffer Strip	A buffer strip is required along any interior side lot line and rear lot line which abuts land zoned for residential or institutional purposes.	N/A Existing Buffer strips at lot lines	YES

Supporting Calculations	
For maximum lot coverage:	
Site Area =	981 m ²
Proposed Building area =	367.5 m ²
Total Coverage =	(367.5 m ² / 981 m ²) x 100 = 37.5%
Landscape Area:	
Site Area =	981 m ²
Proposed Landscape Area =	139.6 m ²
Total Coverage =	(139.6 m ² / 981 m ²) x 100 = 14.2%
Parking Calculation (5-Storey Mixed-Use):	
Residential	17 Units x 1 space / unit = 17 Spaces
Commercial	1 space / 30 m ² / 115 m ² = 4 spaces
Total Parking Calculated	= 21 Spaces
50% Reduction for CBD	= 10.5 Spaces Required
Total Parking Provided	= 11 Spaces
BF Required	= 1 Space

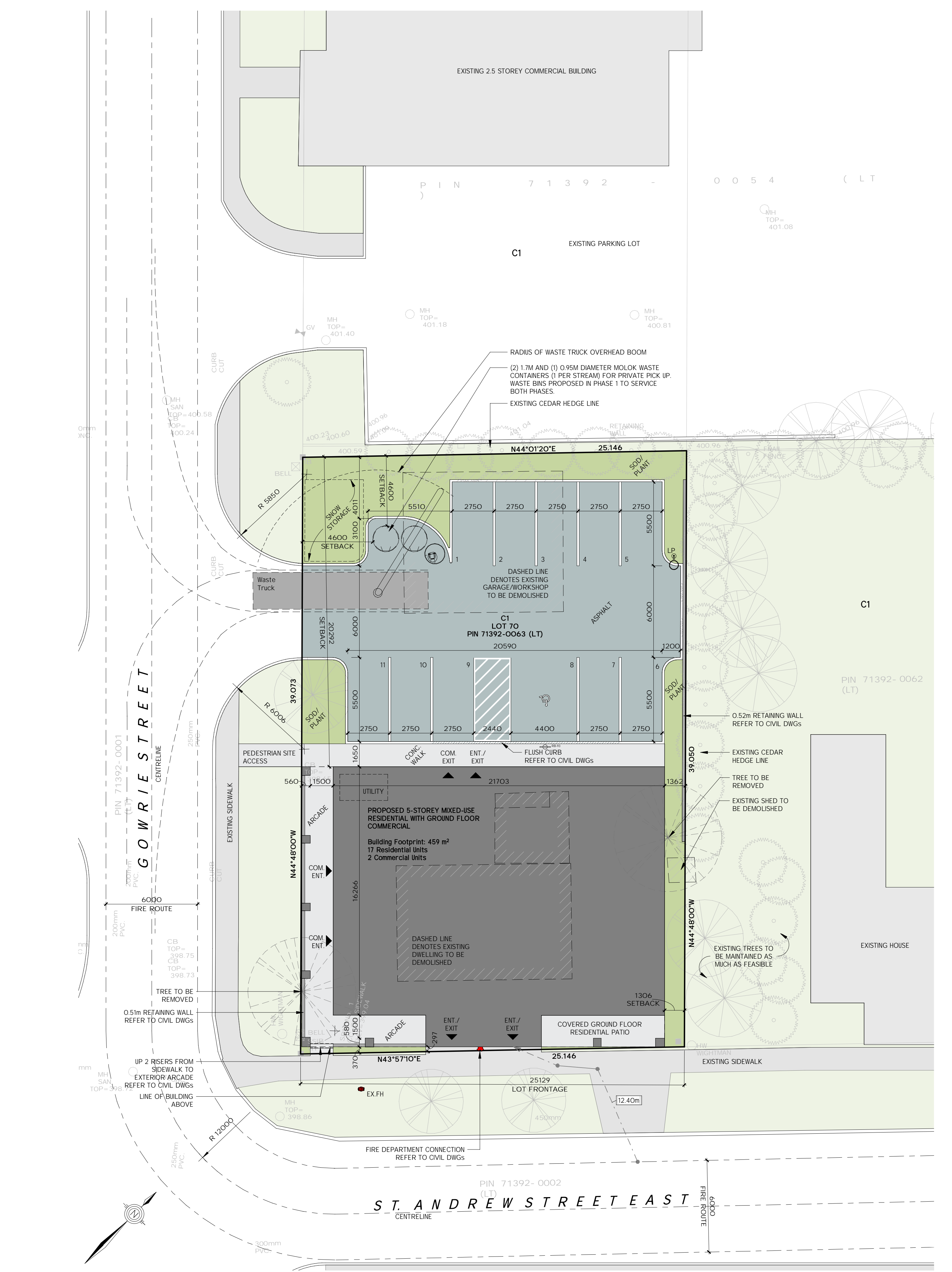
SITE PLAN LEGEND	SITE PLAN NOTES
SOD OR LANDSCAPED AREA	1. PROPOSED DRIVEWAY AND PARKING TO BE ASPHALT.
PROPOSED ASPHALT PARKING AREA	2. ALL PARKING LINES TO BE PAINTED WITH HIGH TONAL CONTRAST AGAINST ASPHALT SURFACE.
PROPOSED WALKWAYS	3. ALL BARRIER FREE PARKING STALLS TO INCLUDE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED WITH HIGH TONAL CONTRAST AGAINST ASPHALT SURFACE.
EXISTING BUILDING STRUCTURES	
EXISTING BUILDING STRUCTURES TO BE REMOVED	
PROPOSED BUILDINGS	
SNOW STORAGE AREA	
RB-93 ACCESSIBLE PARKING SIGN REFER TO TYPICAL DETAIL	
CONCRETE CURB ALL CURBS TO BE SINGLE STAGE PER OPSD 600 04 UNLESS NOTED OTHERWISE. REFER TO CIVIL DRAWINGS FOR DETAILS	
LIGHT POST (L.P.)	
FIRE DEPARTMENT CONNECTION (F.D.C.)	



4 Street View Looking North-East
A1.0

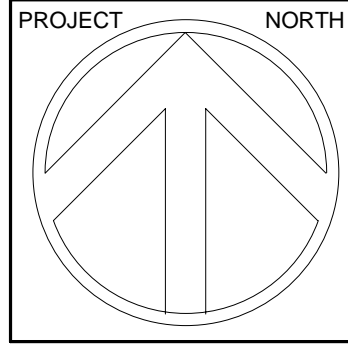
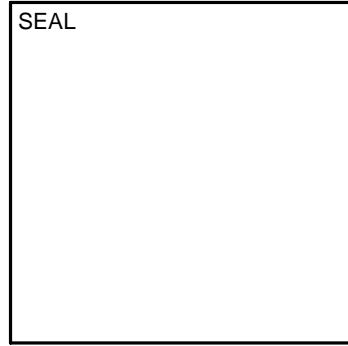


2 Street View Looking South-West
A1.0



1 Site Plan
A1.0 1:150

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE COURSE OF CONSTRUCTION. THE ARCHITECT SHALL BE THE COMMANDER OF THE WORK UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.
ALL DRAWINGS AND SPECIFICATIONS PREPARED BY THE ARCHITECT SHALL BE THE PROPERTY OF HIS SERVICE AND ARE TO BE RETURNED AT HIS REQUEST.
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STATUS	ZBA
PROJECT #	21040
CHKD	Checker
DRAWN	AKR
SCALE	As indicated
DATE DWN	2021 08 18
ISSUED	2022 03 29
SHEET #	TITLE

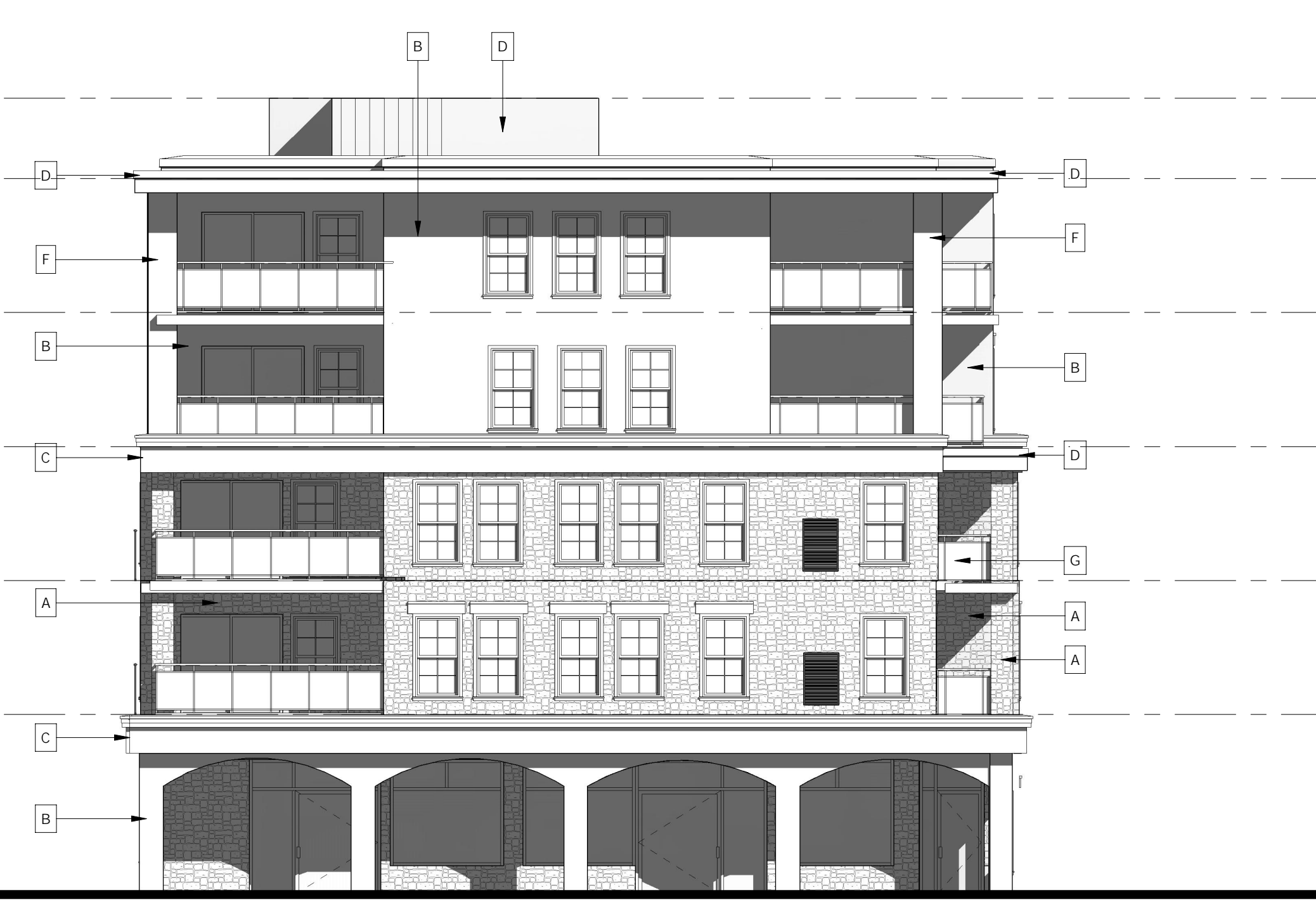
Appendix B | Elevations

MATERIAL LEGEND	
A	STONE - Brampton Brick - 'Vivace' in colour 'Milano'
B	STUCCO - LIGHT NEUTRAL COLOUR EQUIV. TO BM 'NATURAL LINEN'
C	PRECAST MOULDING AND/OR PRE-FINISHED STUCCO MOULDING - LIGHT NEUTRAL COLOUR EQUIV TO BM 'NATURAL LINEN'
D	PRE-FINISHED METAL SIDING/FLASHING
E	NOT USED
F	ARCHITECTURAL FINISHED CONCRETE
G	GLAZING

NOTE: CONFIRM FINAL COLOUR SELECTIONS WITH OWNER



3 St. Andrew St. E.
A4.0 1:100



2 West
A4.0 1:100



1 North
A4.0 1:100



4 East
A4.0 1:100

PRELIMINARY

Mixed Use Commercial Residential
St. Andrew St. E, Fergus
Building Elevations

STATUS	DESIGN
PROJECT #	21040
CHKD	Checker
DRAWN	AKR
SCALE	As indicated
DATE DWN	2021 TO 01
ISSUED	2021 01 24

REVISIONS _____ DATE _____

PROJECT _____ NORTH _____

SEAL _____

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE COURSE OF CONSTRUCTION AND REPORT TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF THE WORK. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.

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Appendix C | Shadow Study

Study Brief:

This shadow study is created to support the Planning Application of a five-story medium density residential building in Fergus, ON.

The shadow study was completed using the Autodesk Revit modeling program by adjusting the Sun Settings to be accurate to the proposed site graphical location and local time zones (Eastern Standard Time Zone).

The study was conducted for 5 intervals on a single day based at the solstices for Summer and Winter and the Spring/Fall equinoxes. Screen shot images were taken at the Solar Noon and include 10am, 12pm, 2pm, 4pm and 6pm.

Reference Base Plan:

The model used in this shadow study is accurate in scale and elevation to the proposed residential building.

Neighboring buildings were modeled with estimated elevation and scale. Google Earth (Image to left) is used to confirm scale and distances to neighboring structures. Model buildings are superimposed on top of Google Earth image.

The Reference Base Plan is to be used as reference to clearly identify the site boundary, the building foot print and mass within the test site, all streets, public parks and open spaces, and all adjacent properties and buildings affected by the shadow study.

'As-of-right' & Proposed Shadow Studies
Mixed-Use Residential &
Commercial
223 St. Andrew Street East, Fergus

2022-03-02 11:59:28 AM



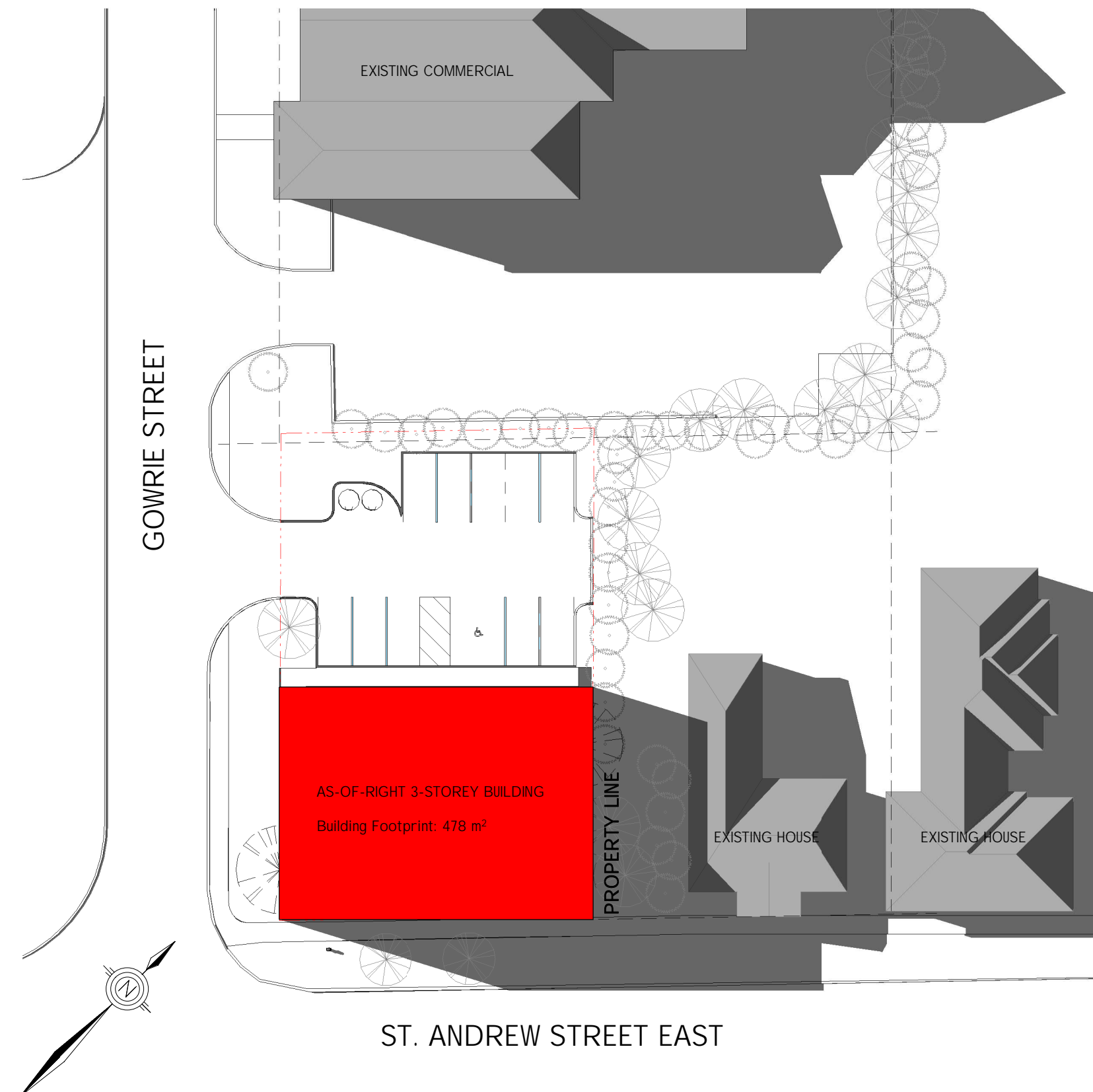
2 AOR - Spring/Fall - 10am
SK-1 1: 400



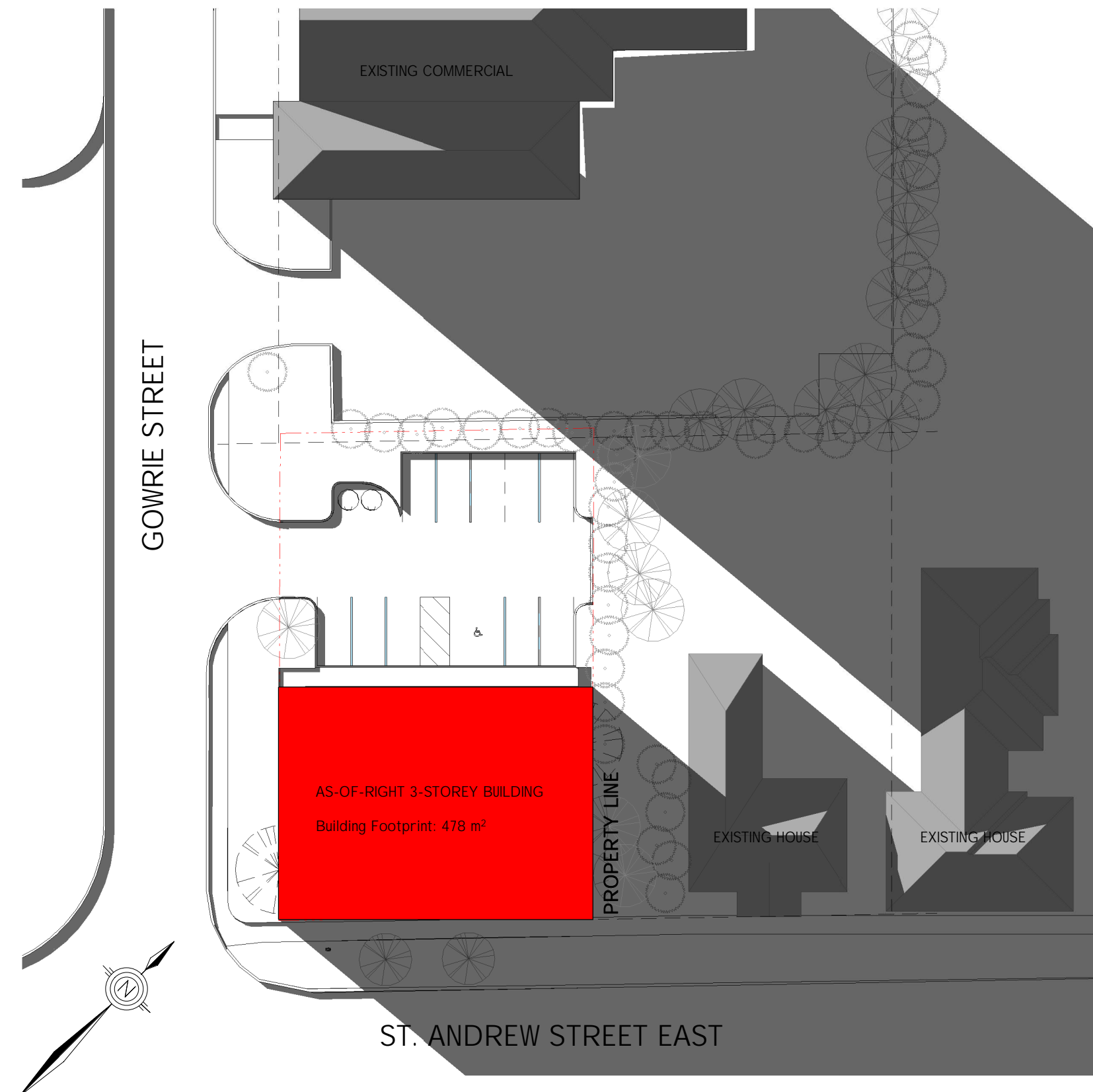
1 AOR - Spring/Fall- 12pm (Solar Noon)
SK-1 1: 400



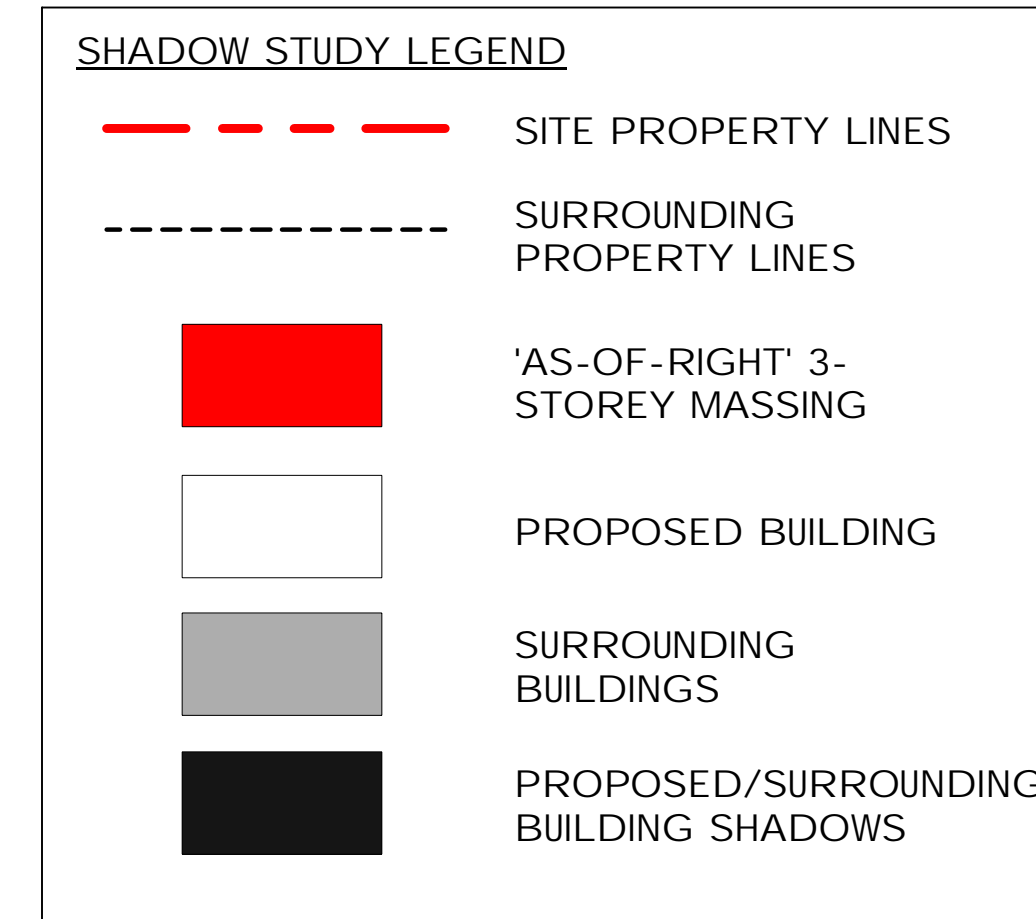
3 AOR - Spring/Fall - 2pm
SK-1 1: 400



4 AOR - Spring/Fall - 4pm
SK-1 1: 400



5 AOR - Spring/Fall - 6pm
SK-1 1: 400



PRELIMINARY

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE COURSE OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR NOTIFYING THE ARCHITECT PRIOR TO THE COMMENCEMENT OF THE WORK UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.
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SEAL

PROJECT NORTH

Mixed-Use Residential & Commercial
223 St. Andrew Street East, Fergus
As-of-right Shadow Study -
Spring/Fall

STATUS	DESIGN
PROJECT #	21040
CHKD	CHECKER
DRAWN	AUTHOR
SCALE	As Indicated
DATE DWN	11/26/21
ISSUED	2022 03 02

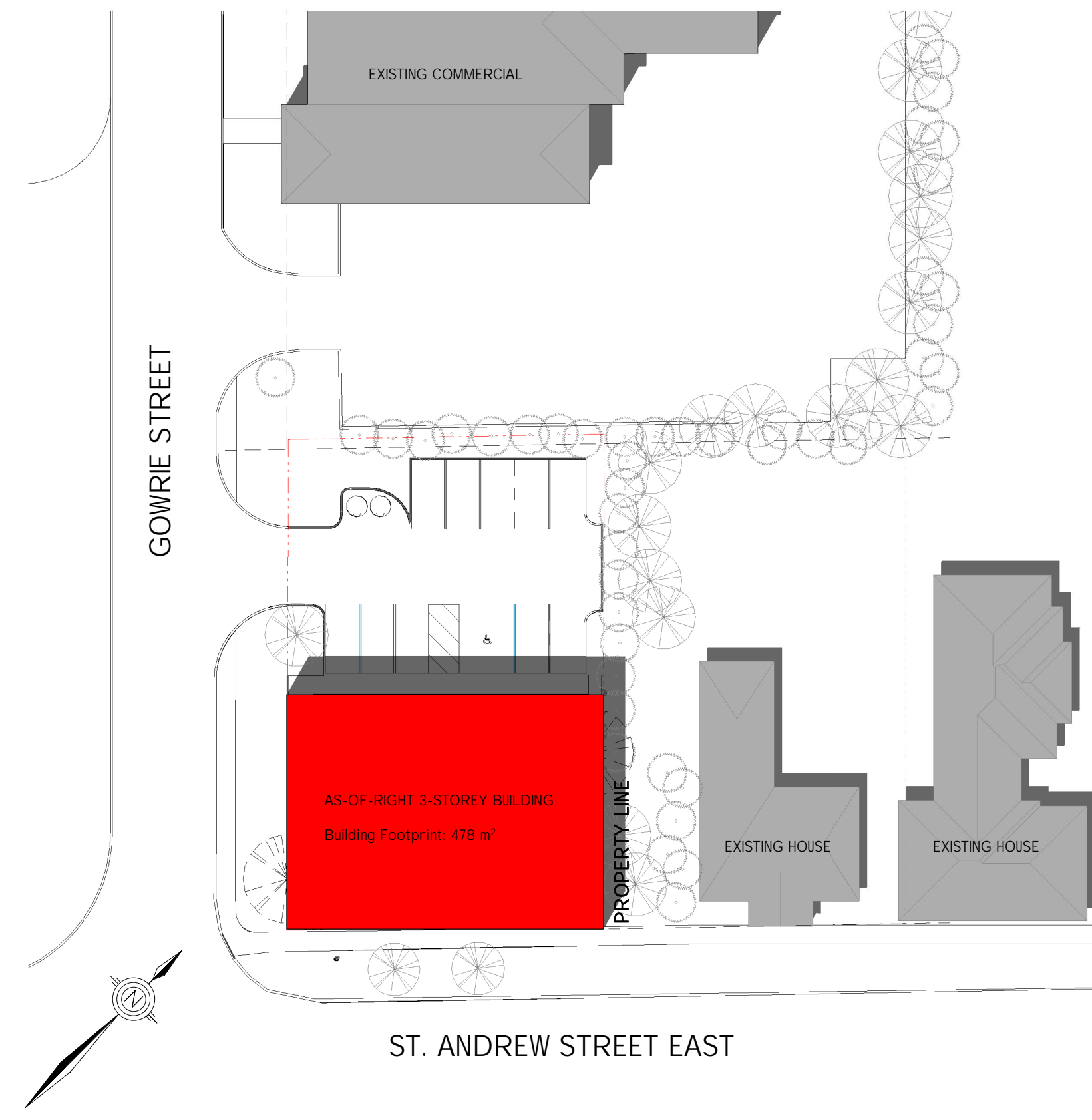
SK-1

REVISIONS DATE

2022-03-02 1:59:31 AM



1 AOR - Summer June 21 - 10am
SK-2 1: 400



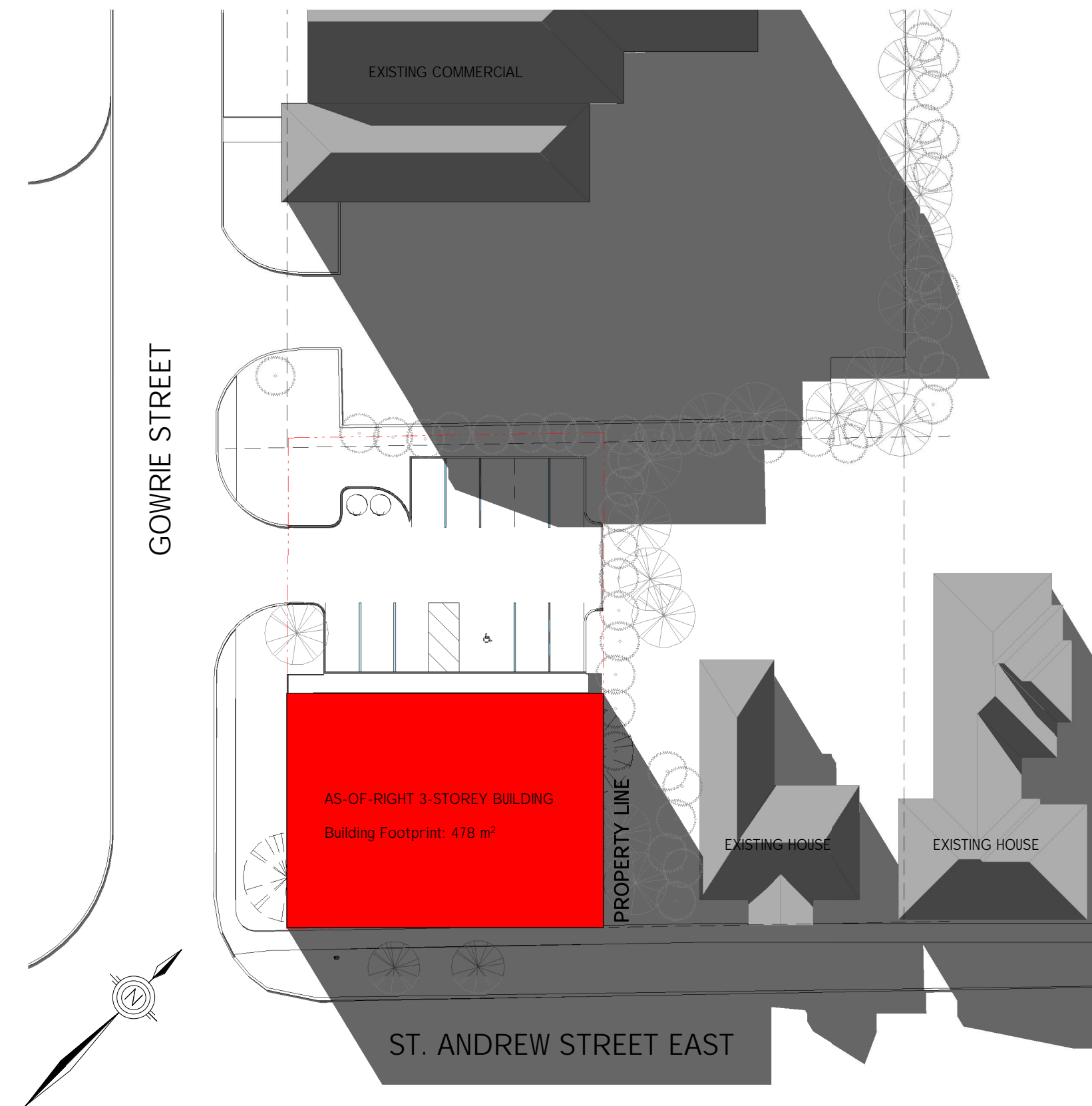
2 AOR - Summer June 21 - 12pm (Solar Noon)
SK-2 1: 400



3 AOR - Summer June 21 - 2pm
SK-2 1: 400



4 AOR - Summer June 21 - 4pm
SK-2 1: 400



5 AOR - Summer June 21 - 6pm
SK-2 1: 400

SHADOW STUDY LEGEND

- - - - - SITE PROPERTY LINES
- SURROUNDING PROPERTY LINES
- 'AS-OF-RIGHT' 3-STOREY MASSING
- PROPOSED BUILDING
- SURROUNDING BUILDINGS
- PROPOSED/SURROUNDING BUILDING SHADOWS

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE COURSE OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR NOTIFYING THE ARCHITECT PRIOR TO THE COMMENCEMENT OF THE WORK UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.
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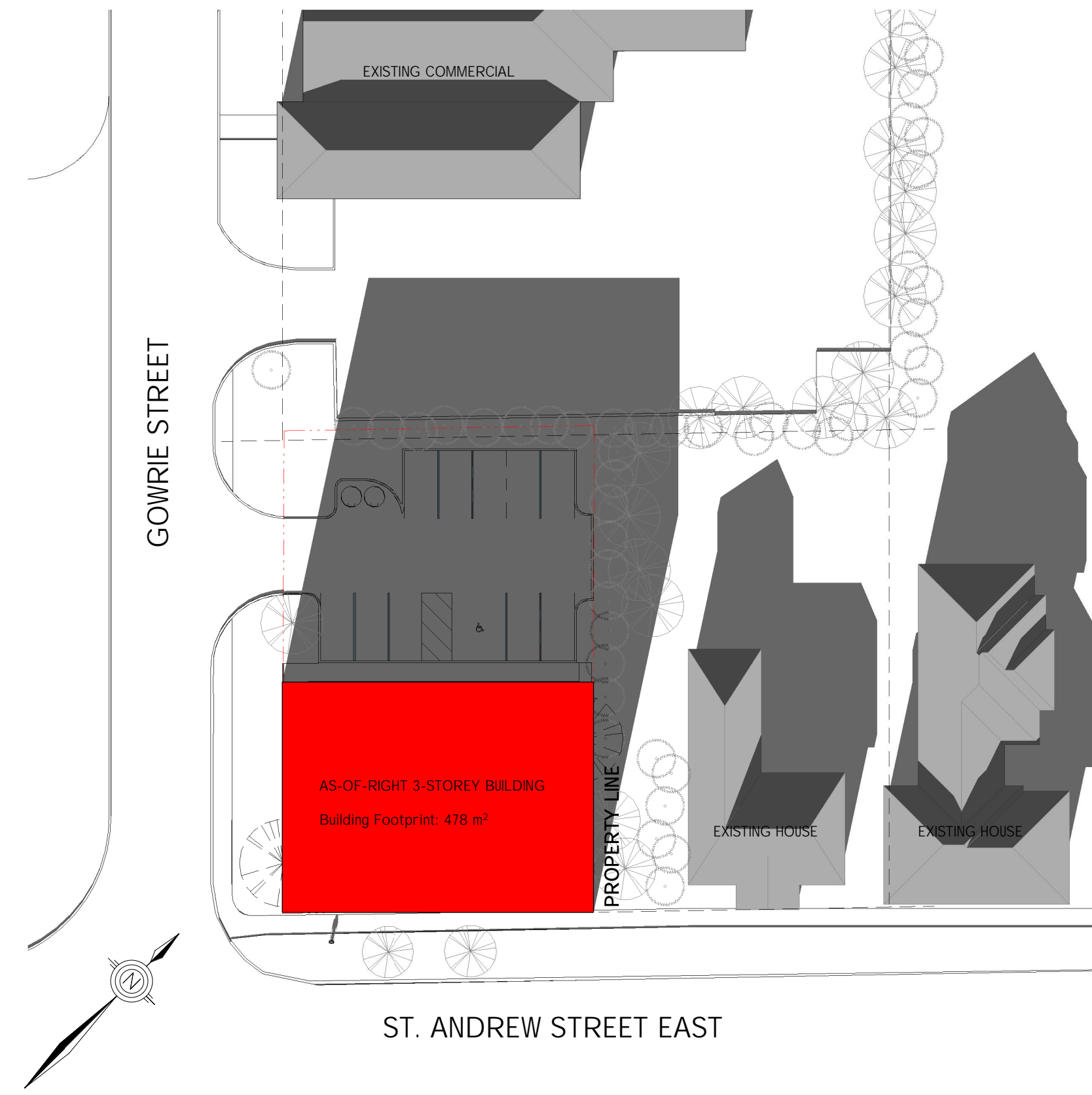
SEAL

PROJECT NORTH

Mixed-Use Residential & Commercial
223 St. Andrew Street East, Fergus
As-of-right Shadow Study - Summer
June 21

STATUS	DESIGN
PROJECT #	21040
CHKD	Checker
DRAWN	Author
SCALE	As indicated
DATE DWN	11/26/21
ISSUED	2022 03 02

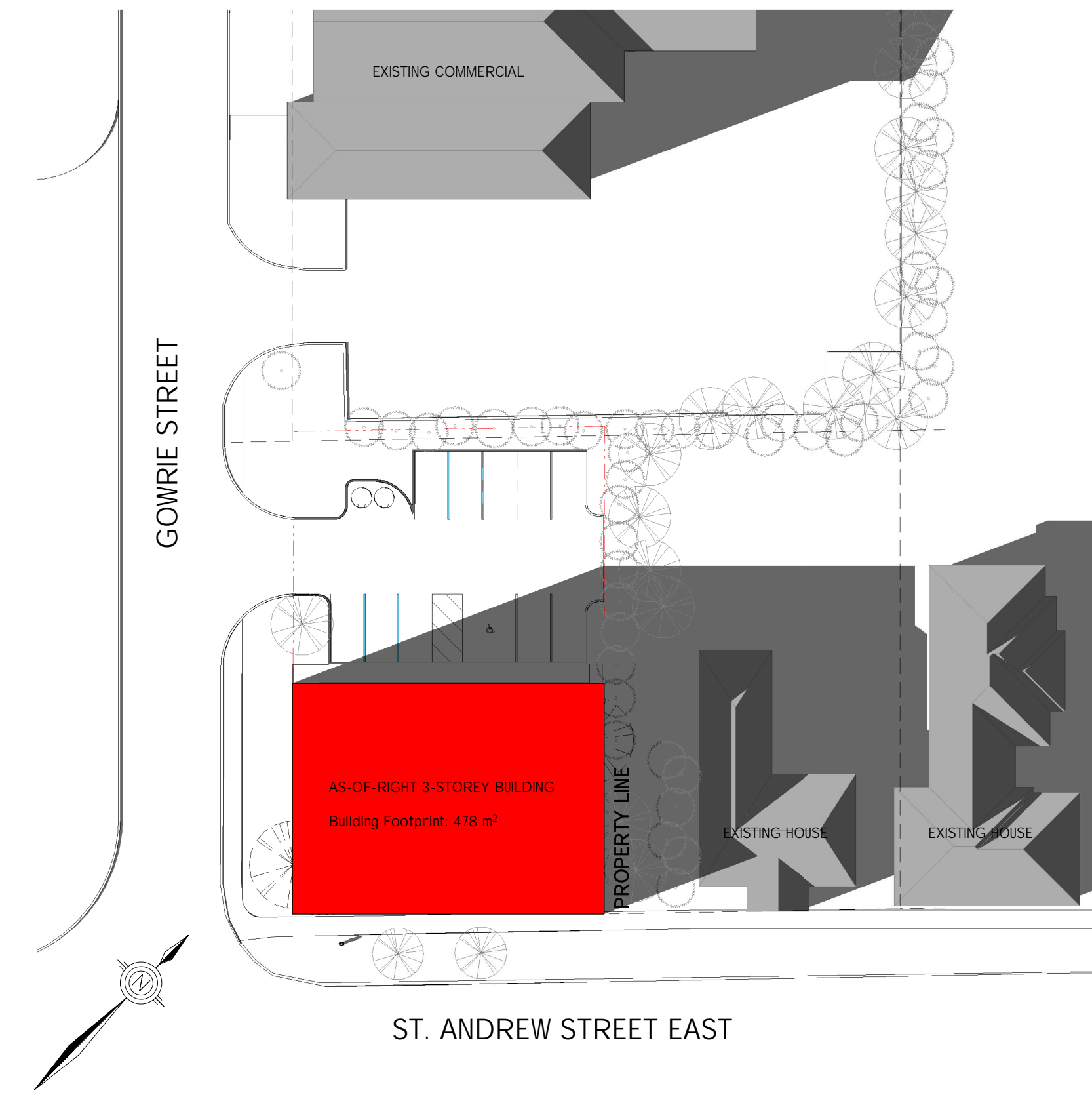
REVISIONS _____ DATE _____



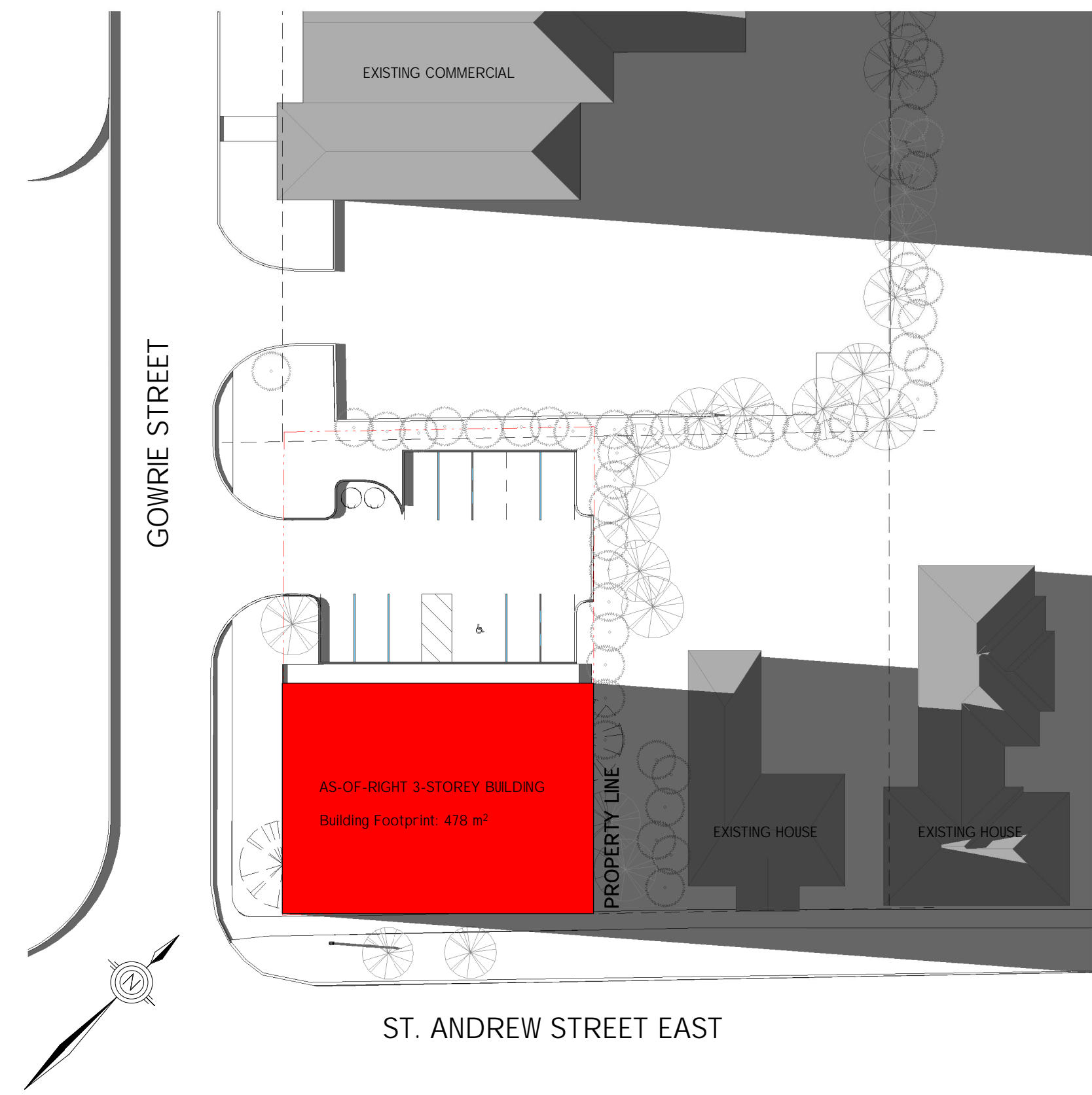
1 AOR - Winter Dec. 21 - 10am
SK-3 1: 400



2 AOR - Winter Dec. 21 - 12pm (Solar Noon)
SK-3 1: 400



3 AOR - Winter Dec. 21 - 2pm
SK-3 1: 400



4 AOR - Winter Dec. 21 - 4pm
SK-3 1: 400

SHADOW STUDY LEGEND

- - - SITE PROPERTY LINES
- - - SURROUNDING PROPERTY LINES
- 'AS-OF-RIGHT' 3-STOREY MASSING
- PROPOSED BUILDING
- SURROUNDING BUILDINGS
- PROPOSED/SURROUNDING BUILDING SHADOWS

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SEAL

PROJECT NORTH

Mixed-Use Residential & Commercial
223 St. Andrew Street East, Fergus
PROJECT TITLE
As-of-right Shadow Study - Winter
Dec. 21

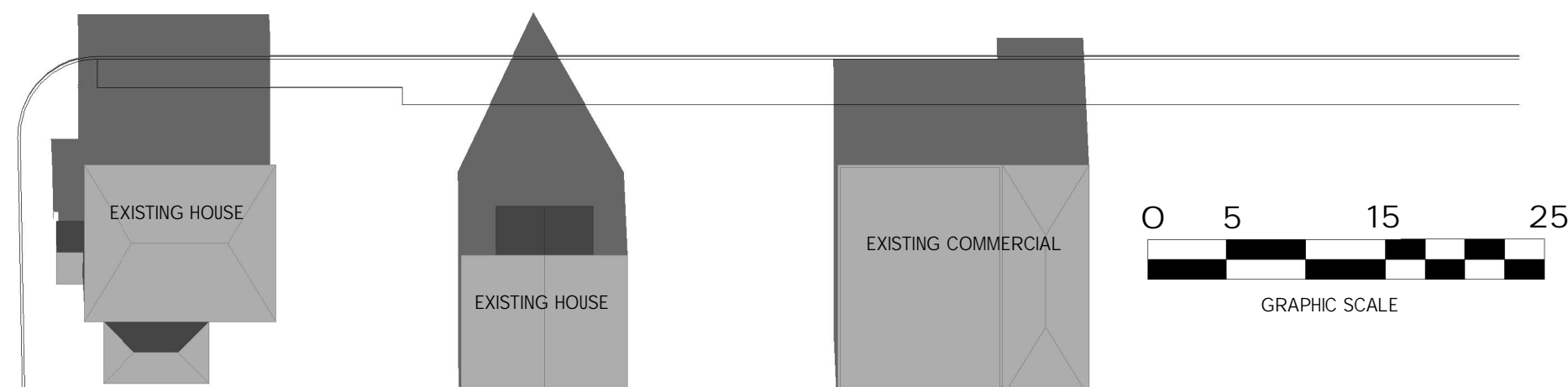
STATUS	DESIGN
PROJECT #	21040
CHKD	AR
DRAWN	CD
SCALE	As indicated
DATE DWN	11/26/21
ISSUED	2022-03-02

REVISIONS _____ DATE _____

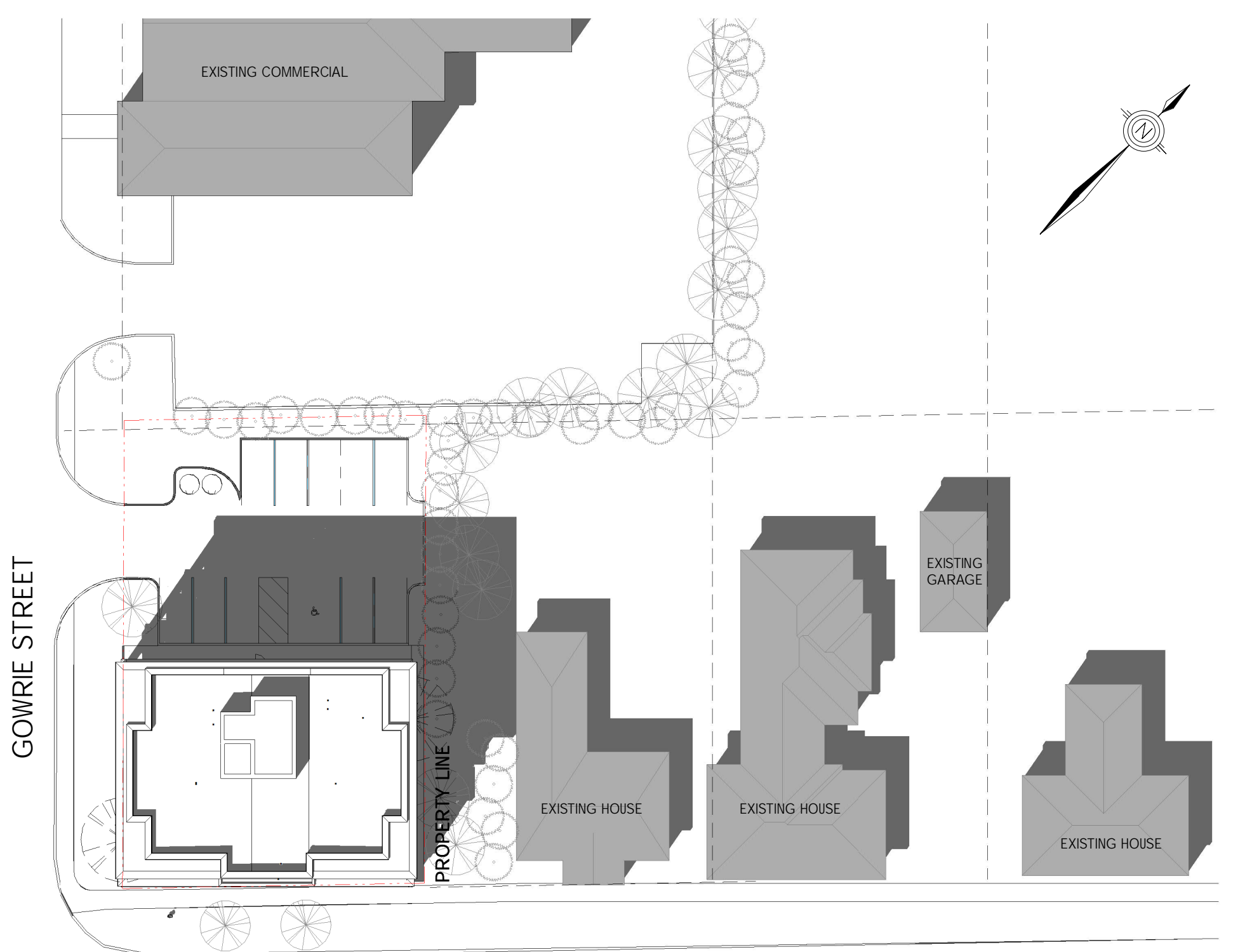
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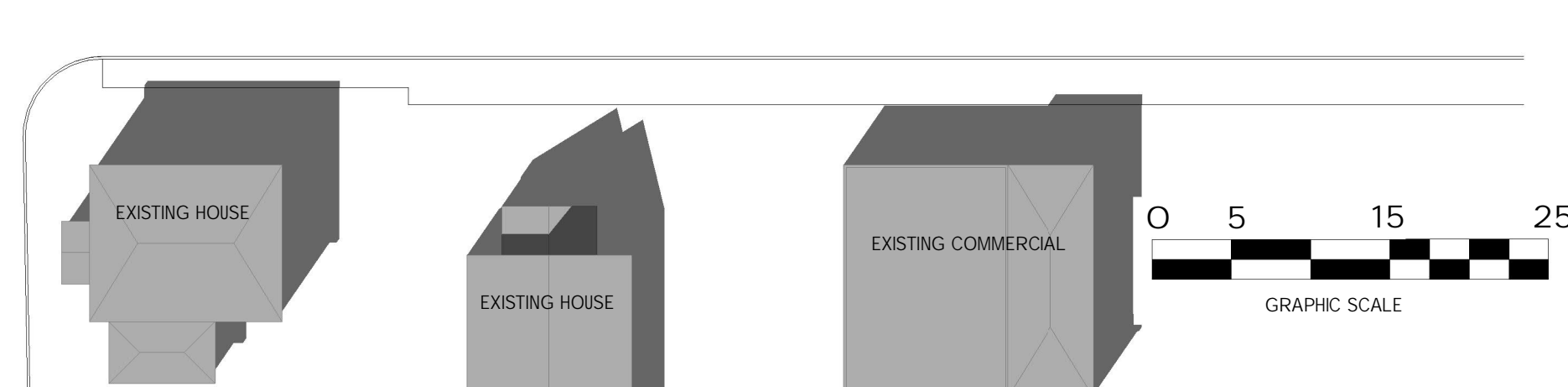
ST. ANDREW STREET EAST



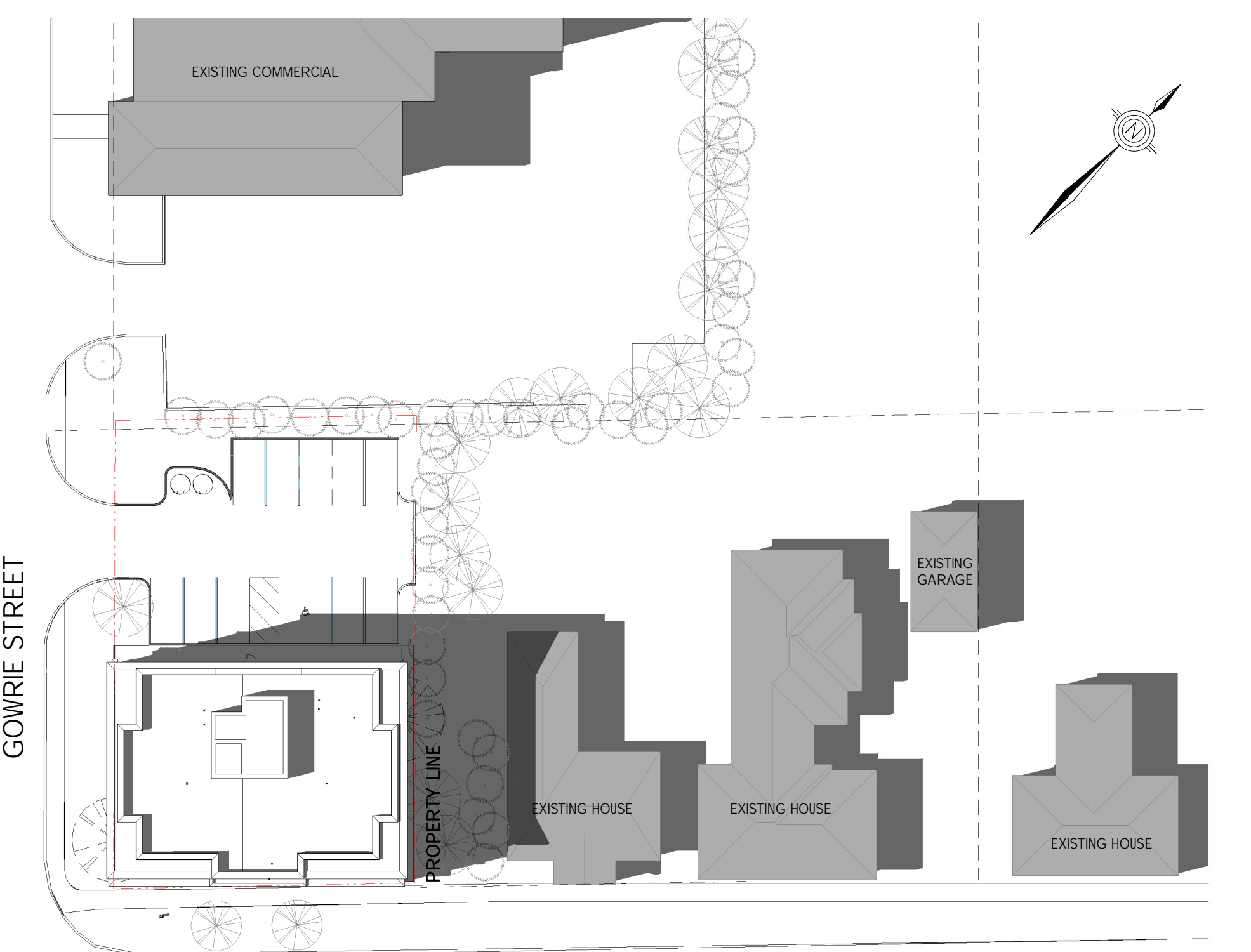
1 Proposed - Spring/Fall - 10am
SK-4 1: 400



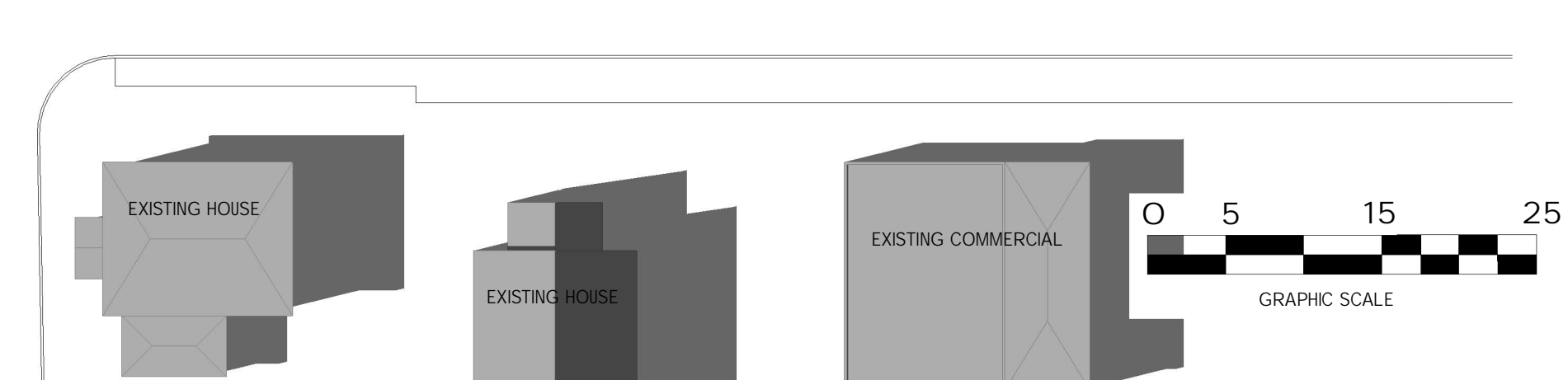
ST. ANDREW STREET EAST



2 Proposed - Spring/Fall - 12pm (Solar Noon)
SK-4 1: 400



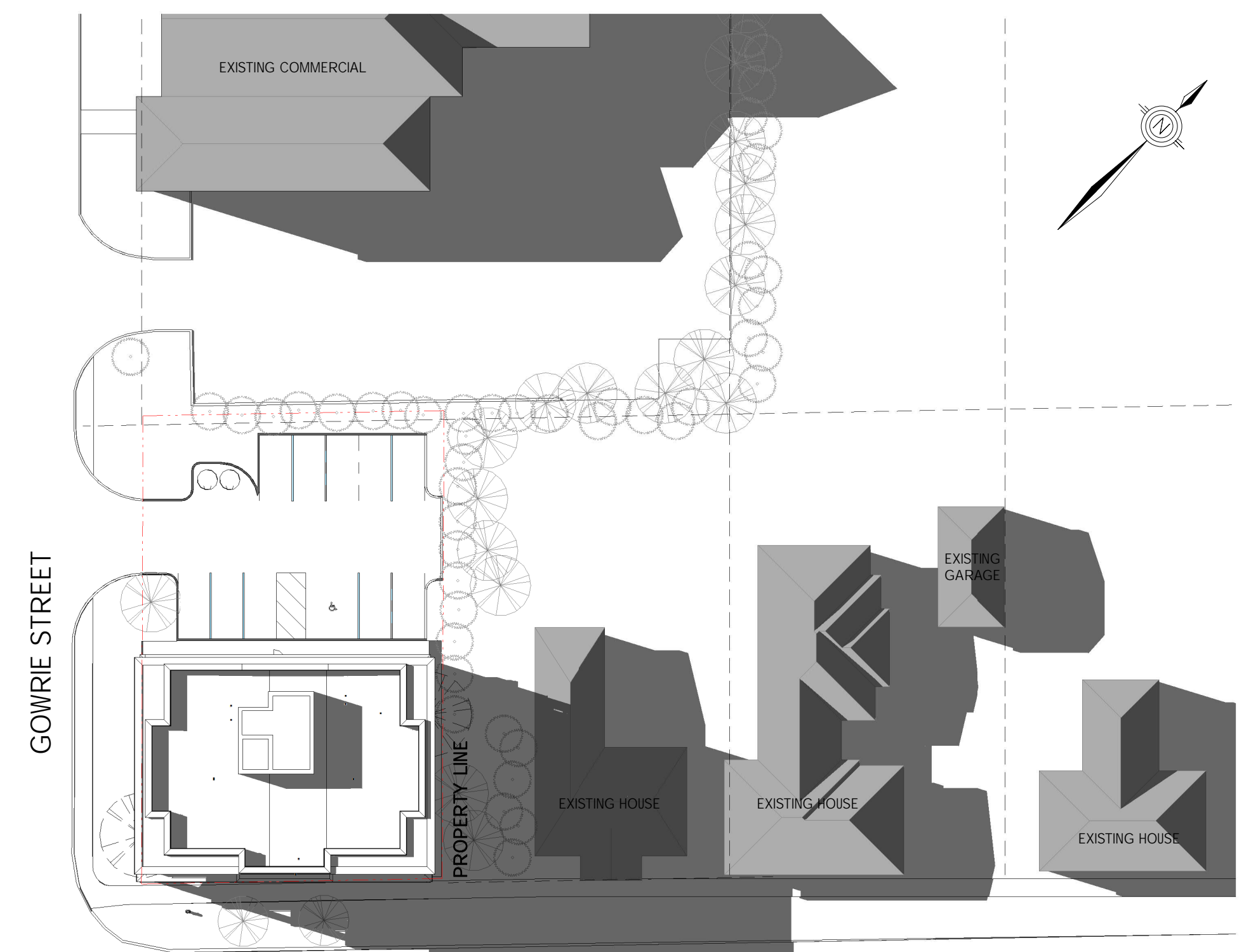
ST. ANDREW STREET EAST



3 Proposed - Spring/Fall - 2pm
SK-4 1: 400

SHADOW STUDY LEGEND

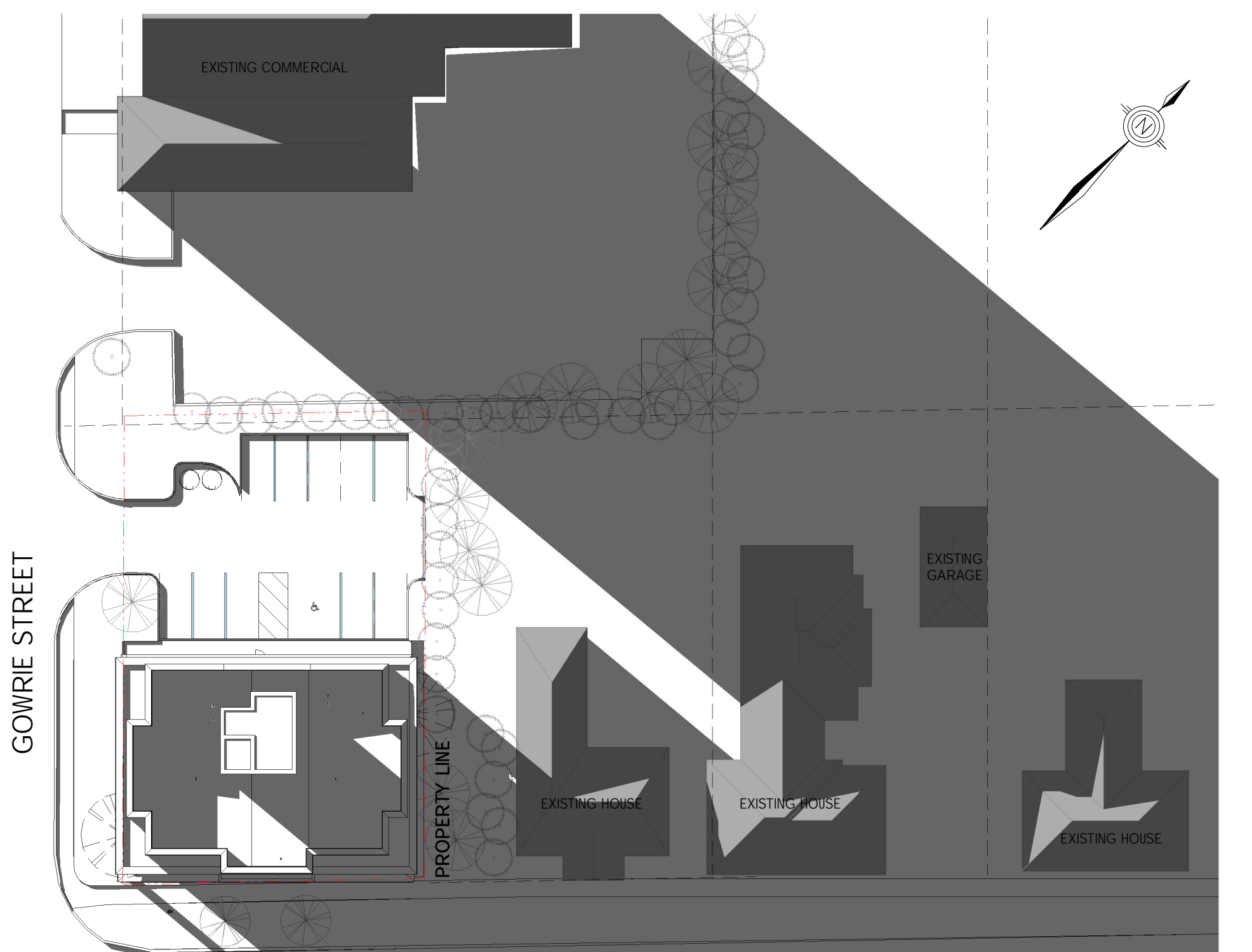
- SITE PROPERTY LINES
- SURROUNDING PROPERTY LINES
- 'AS-OF-RIGHT' 3-STOREY MASSING
- PROPOSED BUILDING
- SURROUNDING BUILDINGS
- PROPOSED/SURROUNDING BUILDING SHADOWS



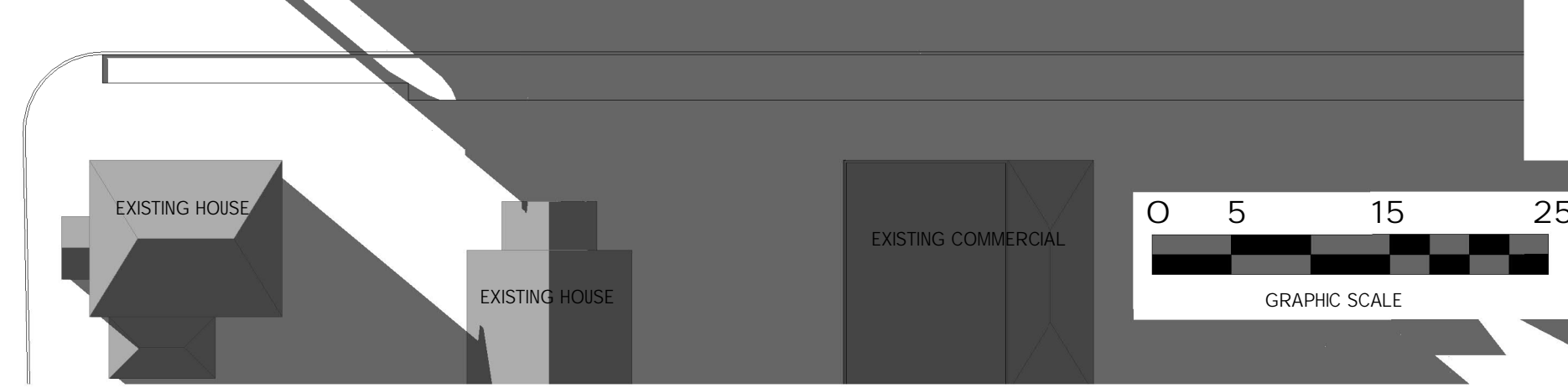
ST. ANDREW STREET EAST



4 Proposed - Spring/Fall - 4pm
SK-4 1: 400



ST. ANDREW STREET EAST



5 Proposed - Spring/Fall - 6pm
SK-4 1: 400

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE COURSE OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF THE WORK. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.
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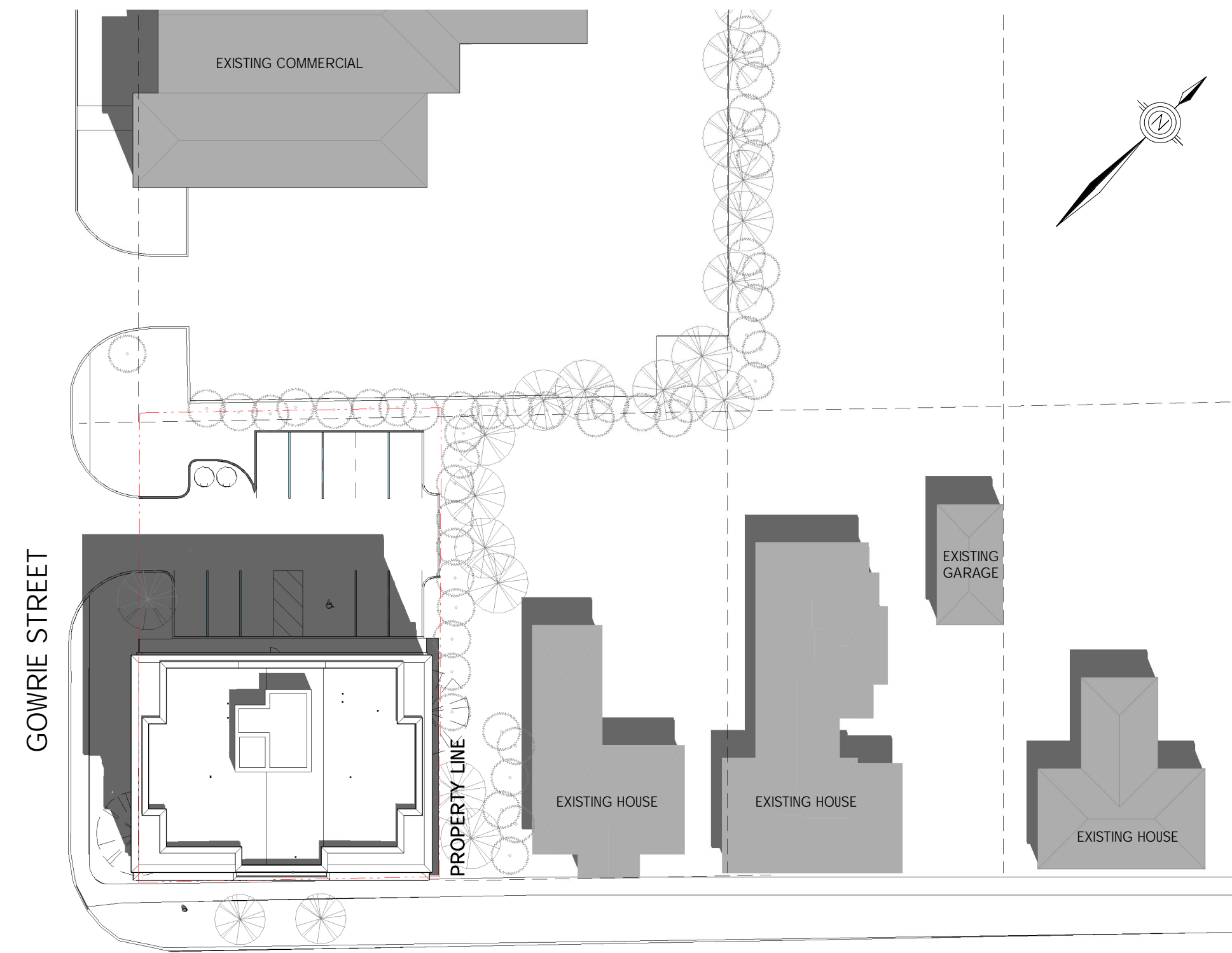
SEAL	
PROJECT	NORTH

Mixed-Use Residential & Commercial
223 St. Andrew Street East, Fergus
Proposed Shadow Study Spring/Fall

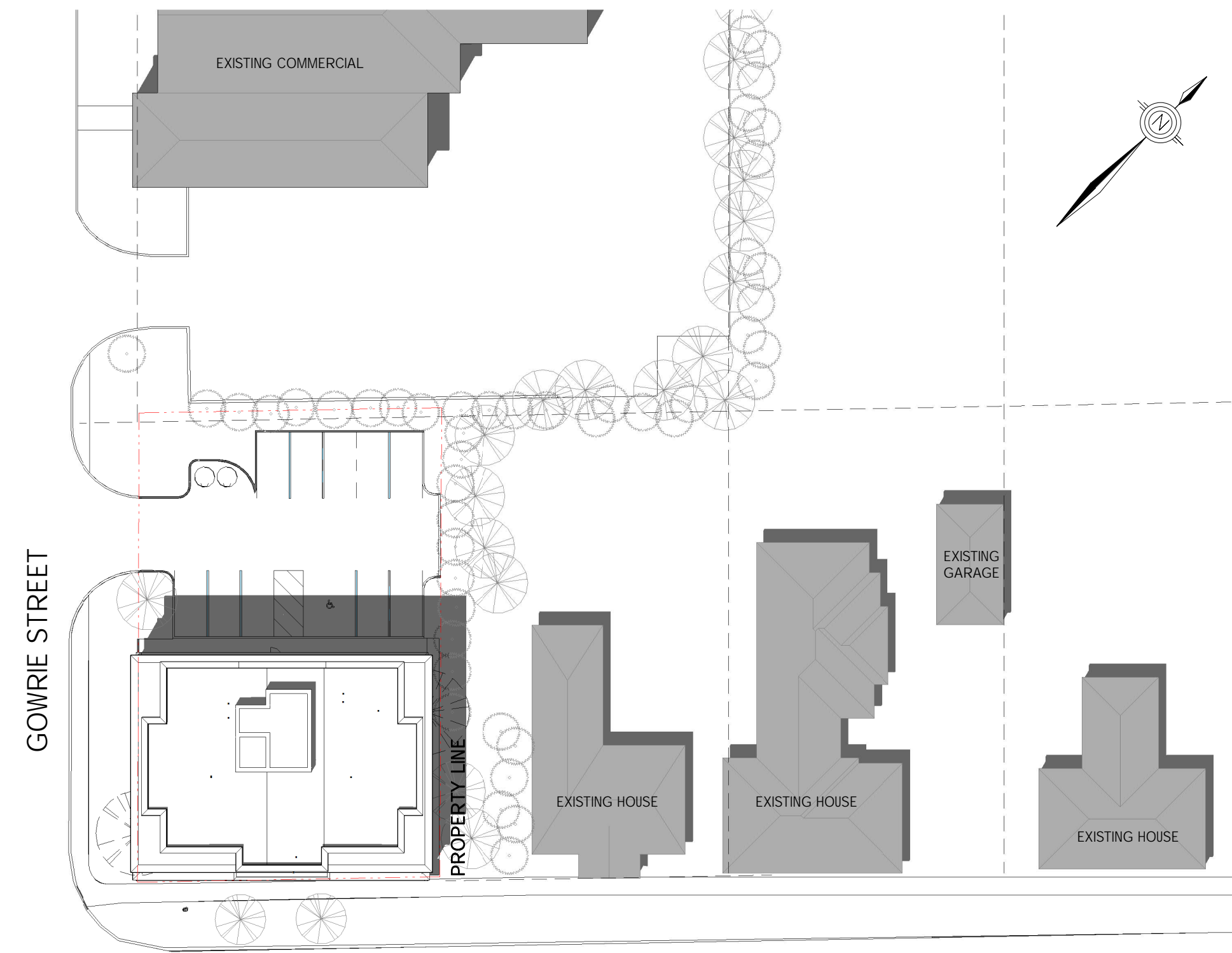
STATUS	DESIGN	DATE
PROJECT #	21040	
CHKD	Checker	
DRAWN	Author	
SCALE	As indicated	
DATE DWN	02/08/22	
ISSUED	2022-03-02	

REVISIONS	DATE
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2022-03-02 12:00:24 PM



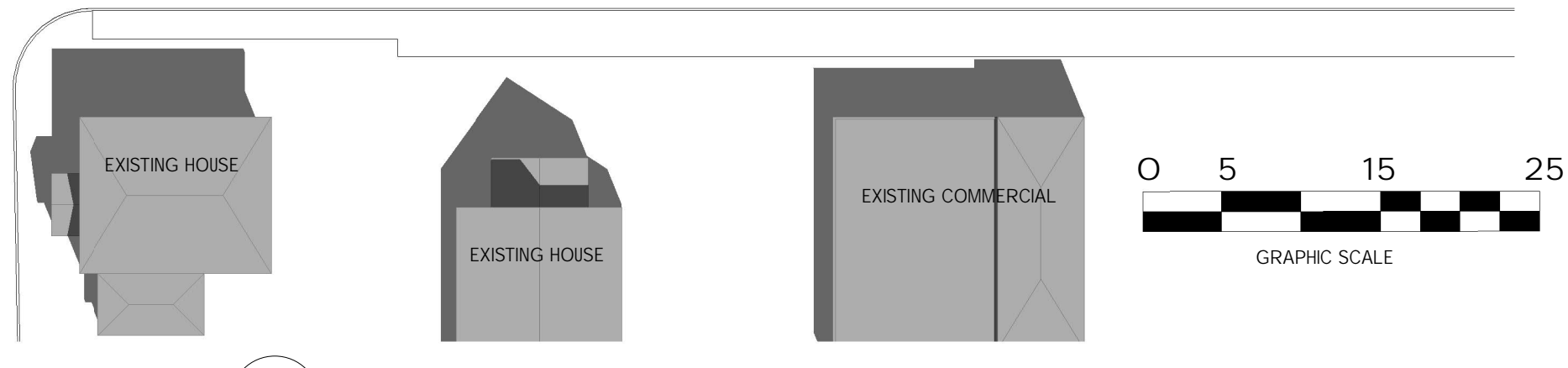
ST. ANDREW STREET EAST



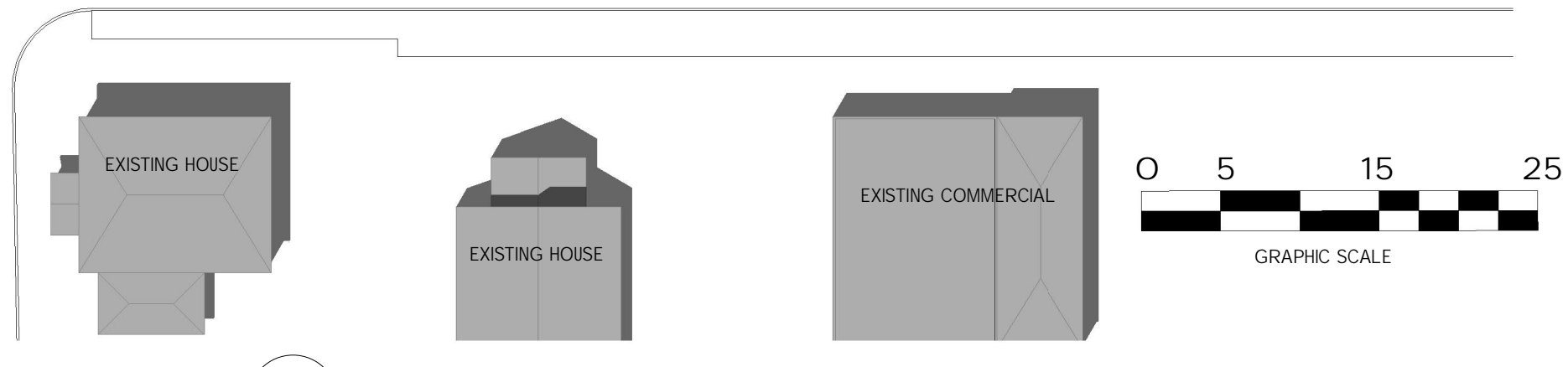
ST. ANDREW STREET EAST



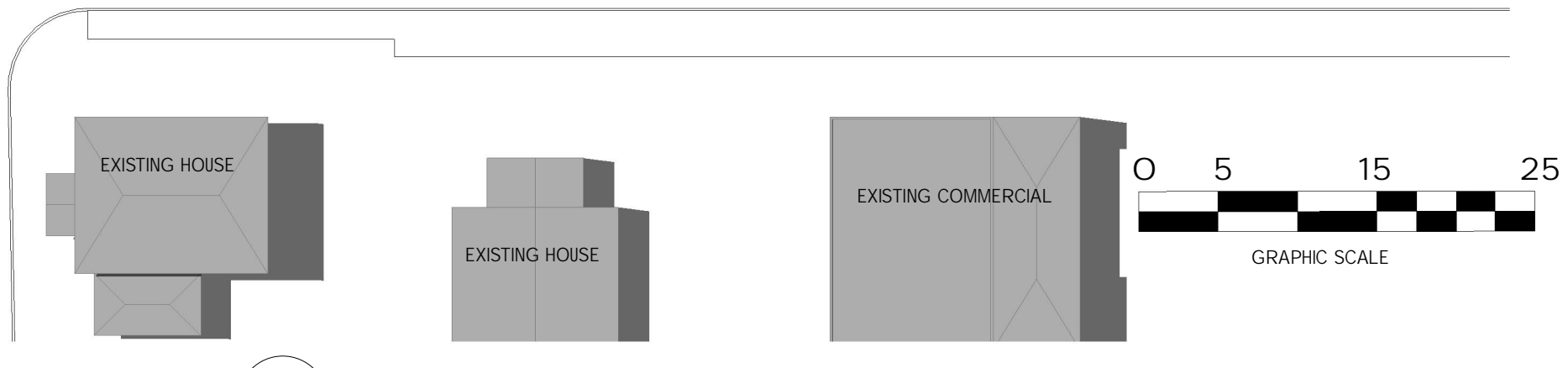
ST. ANDREW STREET EAST



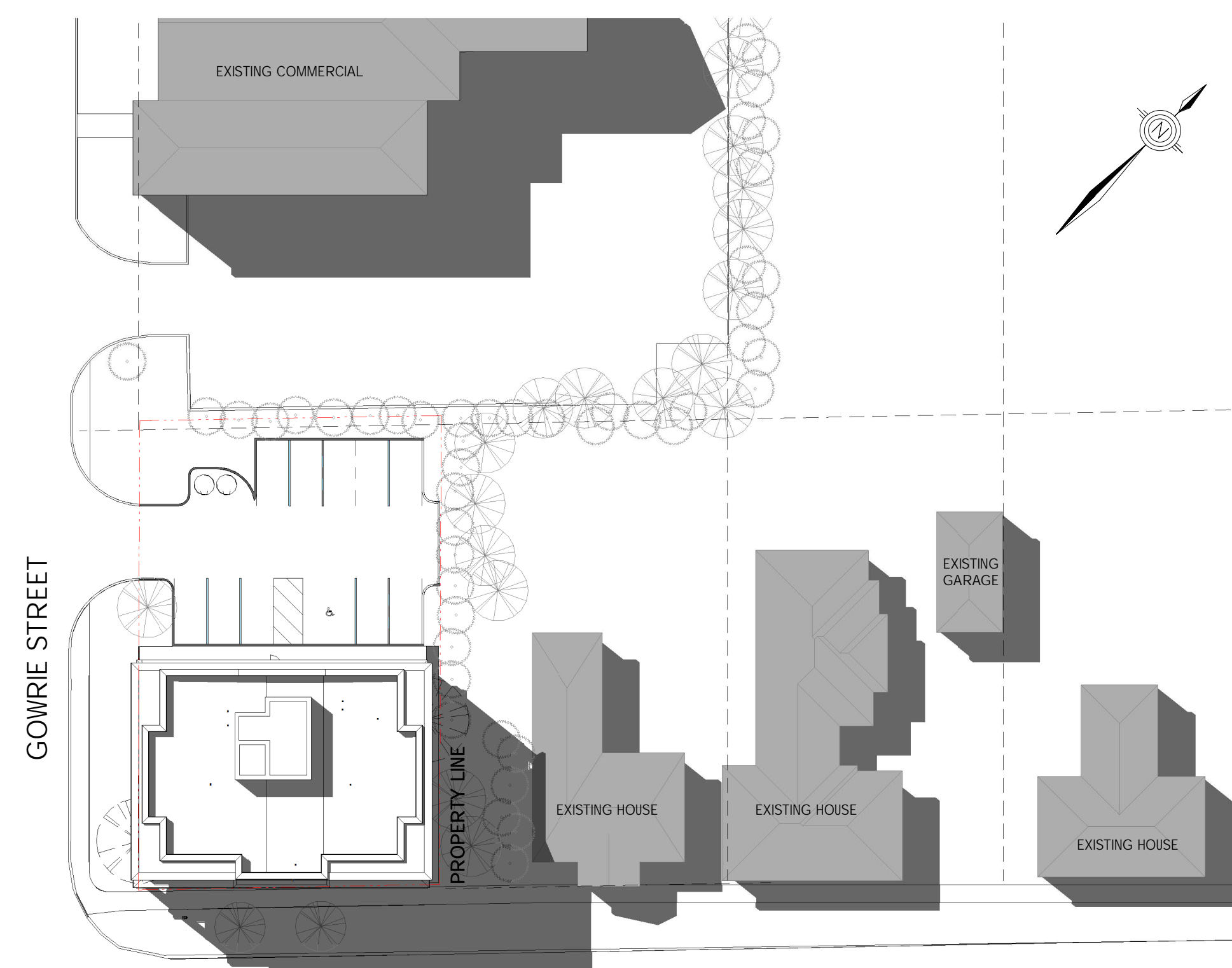
3 Proposed - Summer June 21 - 10am
SK-5 1: 400



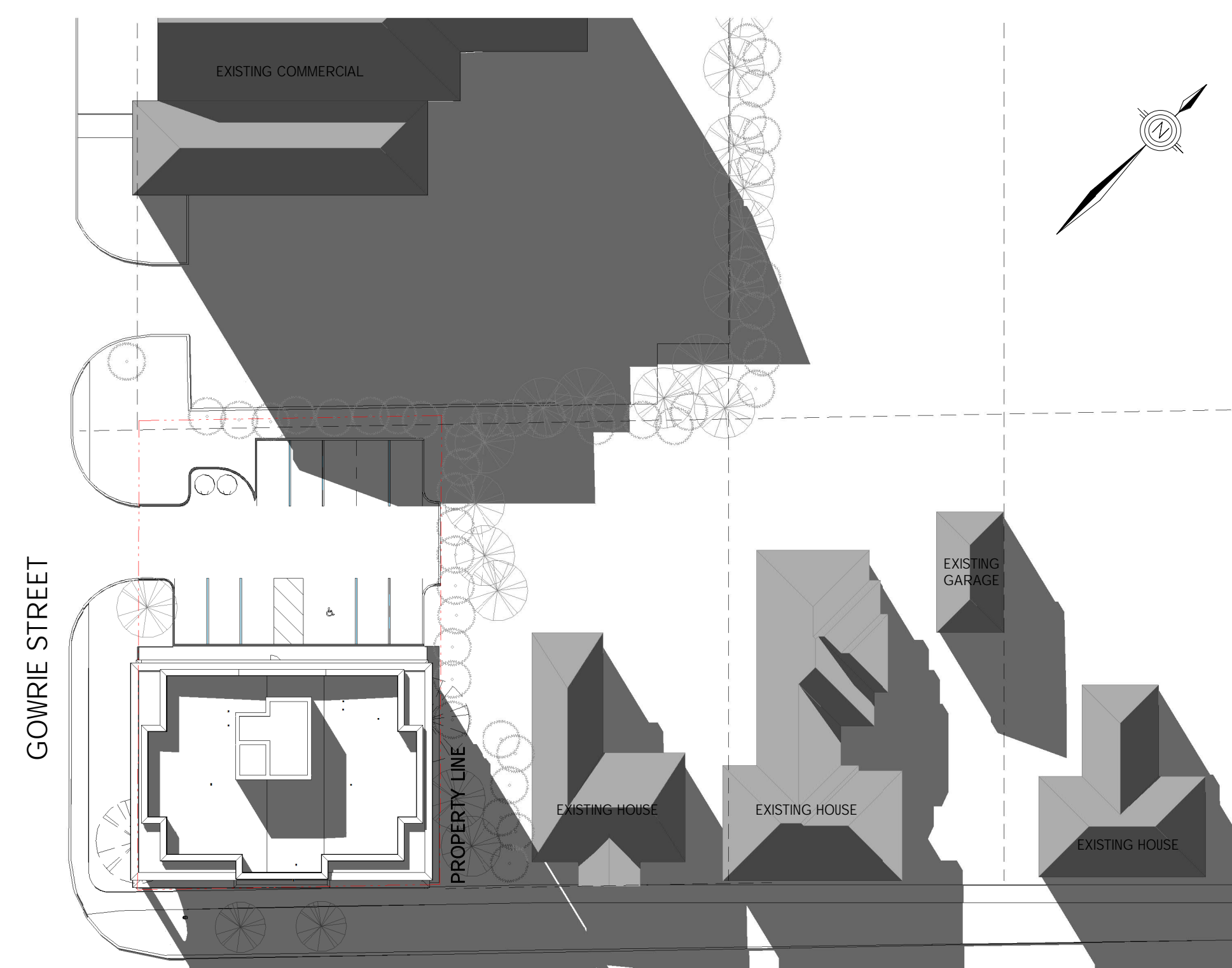
2 Proposed - Summer June 21 - 12pm (Solar Noon)
SK-5 1: 400



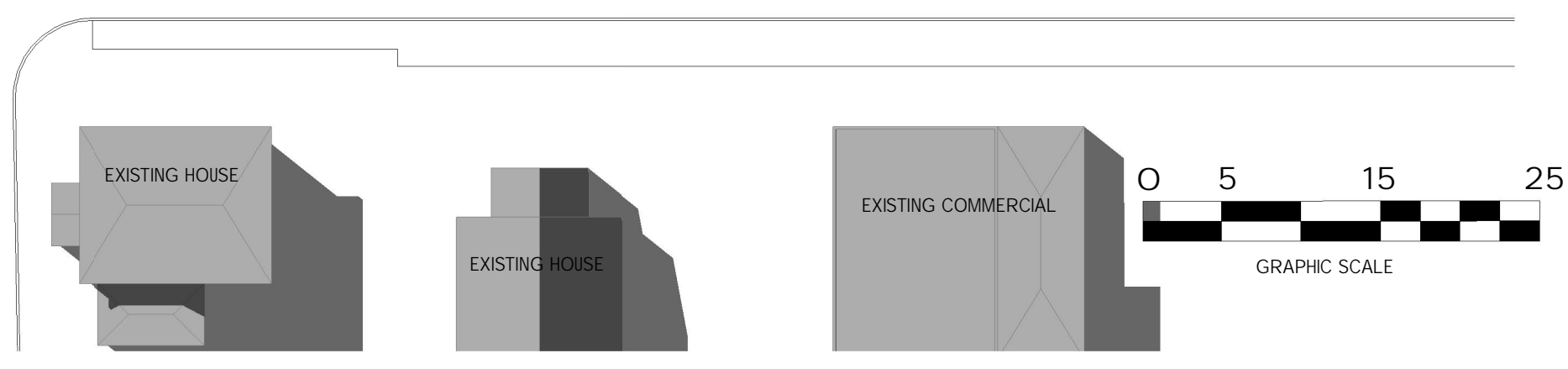
1 Proposed - Summer June 21 - 2pm
SK-5 1: 400



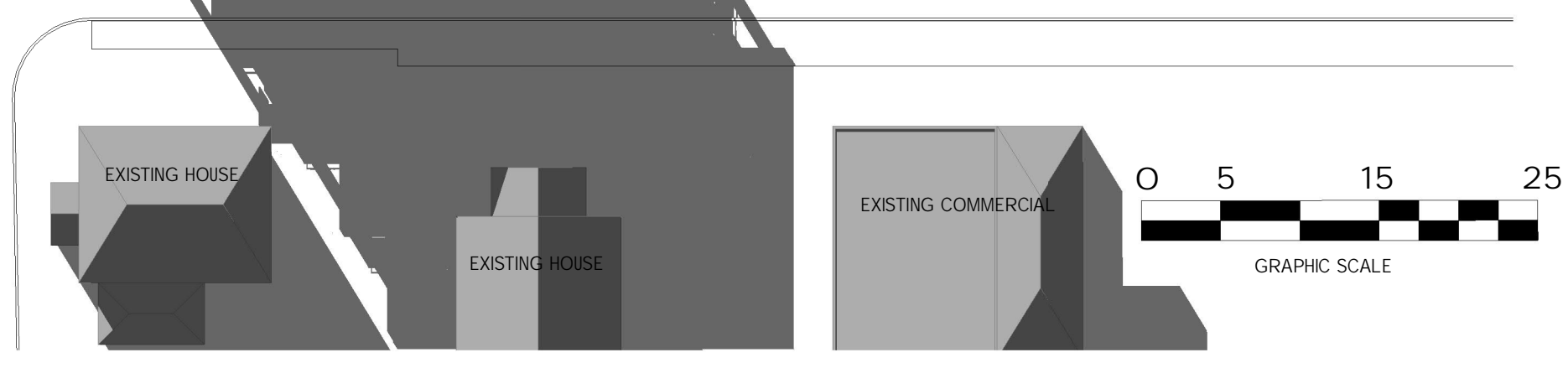
ST. ANDREW STREET EAST



ST. ANDREW STREET EAST



4 Proposed - Summer June 21 - 4pm
SK-5 1: 400



5 Proposed - Summer June 21 - 6pm
SK-5 1: 400

SHADOW STUDY LEGEND

- SITE PROPERTY LINES
- SURROUNDING PROPERTY LINES
- 'AS-OF-RIGHT' 3-STOREY MASSING
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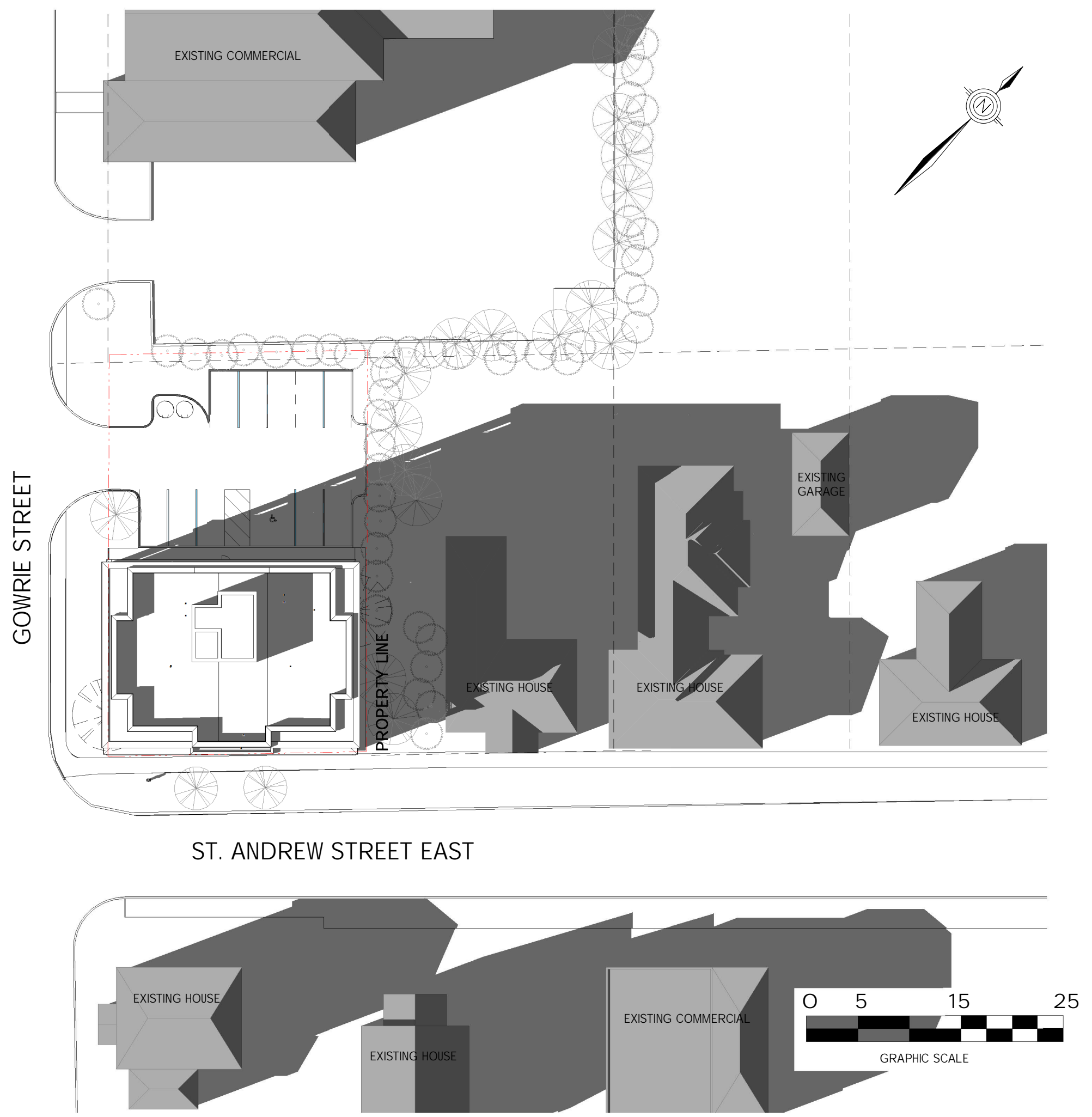
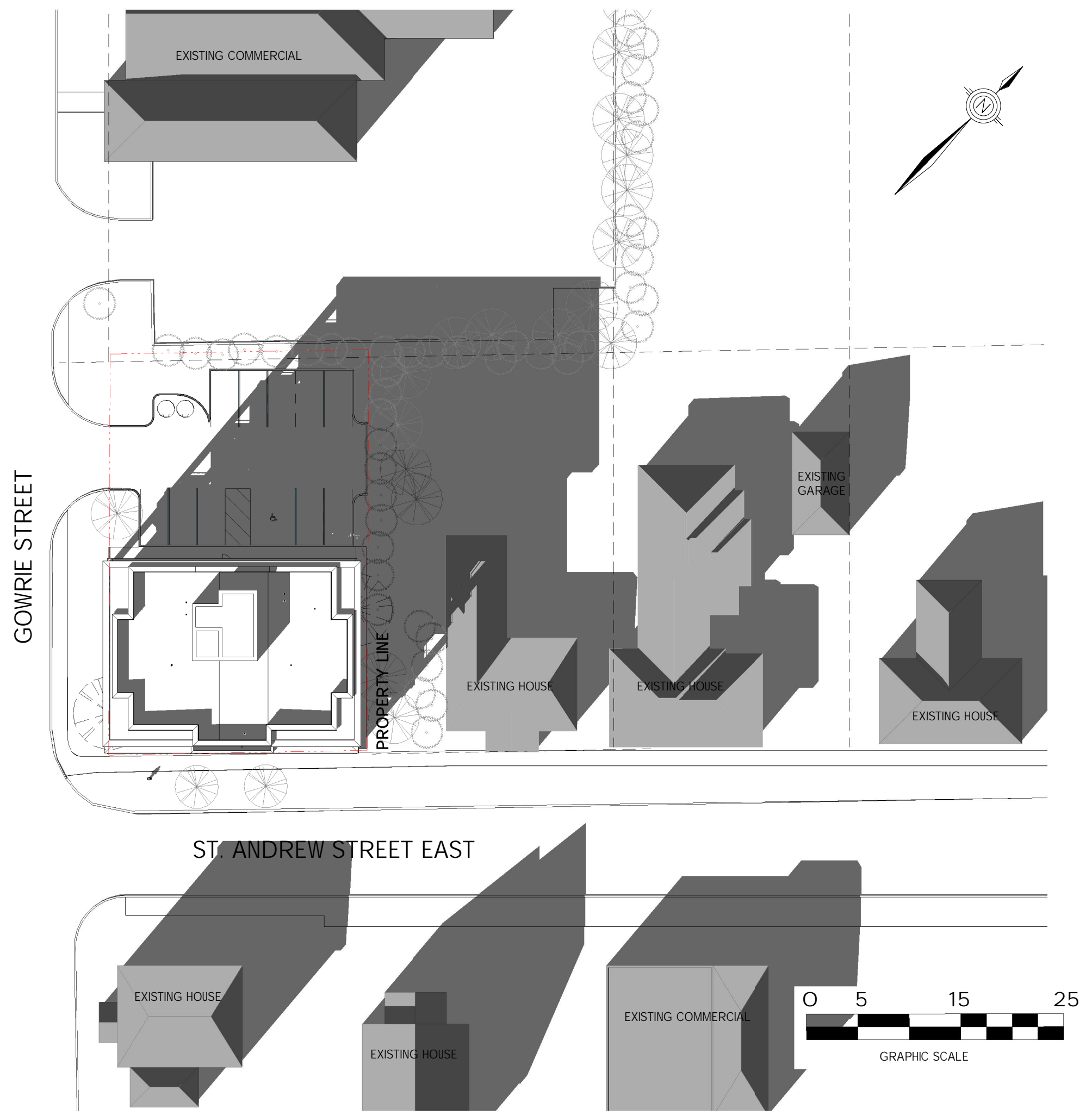
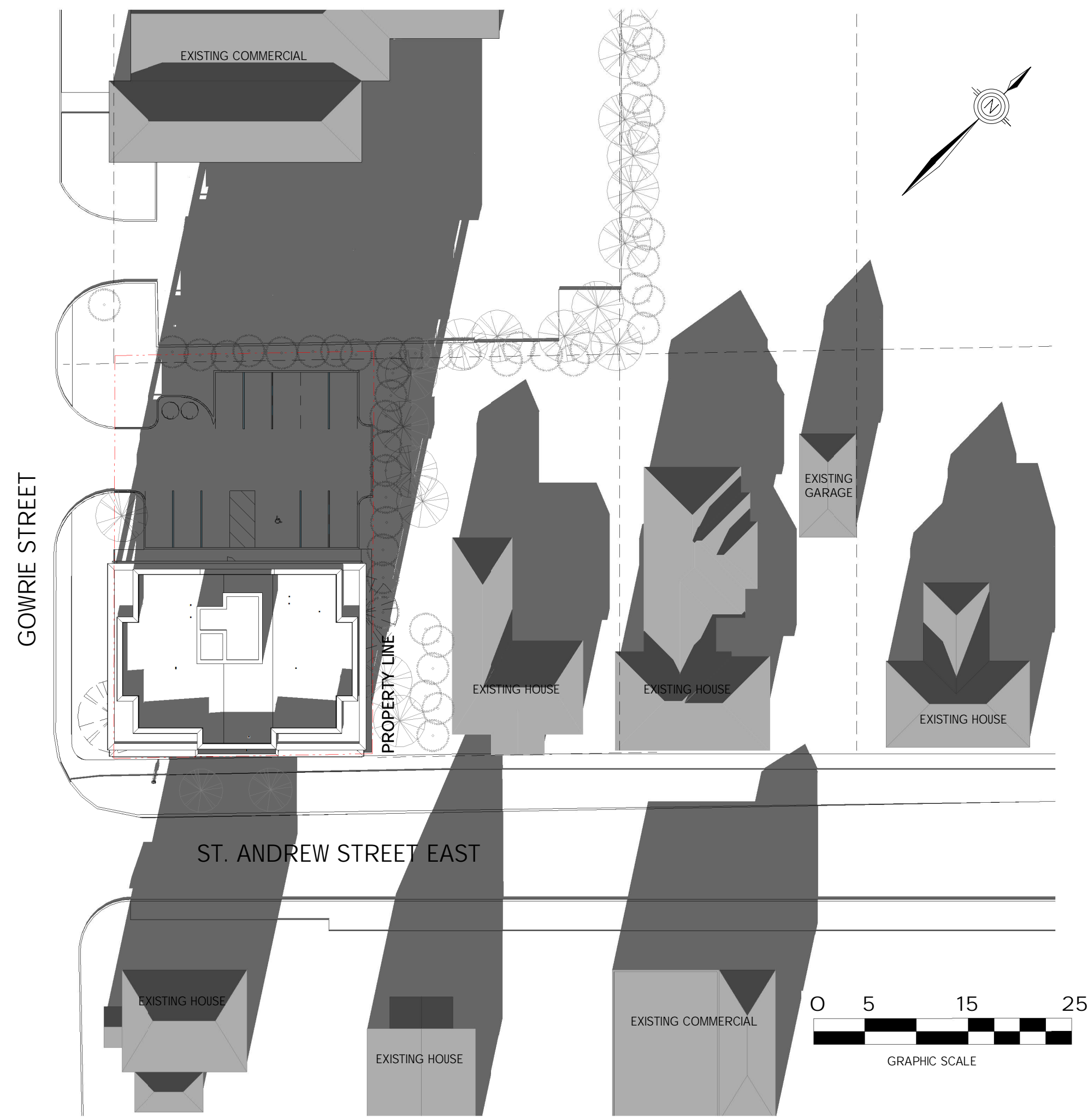
SEAL	
PROJECT	NORTH

Mixed-Use Residential & Commercial
223 St. Andrew Street East, Fergus
Proposed Shadow Study - Summer June 21

STATUS	DESIGN
PROJECT #	21040
CHKD	Checker
DRAWN	Author
SCALE	As indicated
DATE DWN	02/08/22
ISSUED	2022 03 02

REVISIONS	DATE
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2022-03-02 12:00:43 PM



SHADOW STUDY LEGEND

- SITE PROPERTY LINES
- SURROUNDING PROPERTY LINES
- 'AS-OF-RIGHT' 3-STOREY MASSING
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SEAL

PROJECT NORTH

Mixed-Use Residential & Commercial
223 St. Andrew Street East, Fergus
Proposed Shadow Study - Winter Dec. 21

STATUS	DESIGN
PROJECT #	21040
CHKD	Checker
DRAWN	Author
SCALE	As Indicated
DATE DWN	02/08/22
ISSUED	2022-03-02

REVISIONS _____ DATE _____