2 April 2015

Campus & Community Planning
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LEED Canada
Green Building Council

CanPHI Canadian
Passive House Institute

Attention: Karen Russell, RPP MCIP

Re: Student Residence at Brock Commons
6088 Walter Gage Road, UBC

We are pleased to provide the following information in support of the Development Application for the above referenced project.

1. PROJECT DESCRIPTION

The mandate for the Student Residence at Brock Commons is to deliver 408 student residence beds as part of the *Student Housing & Hospitality Services* strategy to address a current 3,500 student wait list for on-campus housing.

The proposed building is 18 storeys, with a maximum height of 53m, as prescribed by UBC Planning. The typical building footprint is 15m x 56m with a typical residential floor area of 780m^2. The total gross floor area is 14,040m^2. The building will be of hybrid construction comprised of 17 storeys of mass wood construction located above a one storey base of concrete construction. There will be two 18 storey concrete cores containing exit stairs and elevators.

Use

The principal use of the project will be as student residence for the housing of upper year and graduate students consisting of single-bed studios and 4-bed quad units, both with kitchen components and bathrooms. The building will be Group C (residential) major occupancy. The building will include amenity spaces, such as social gathering and study spaces for the use of students. The amenity spaces will be Group A-2 (assembly) subsidiary occupancy and will be located in the first storey. Additional spaces contained within the first storey will include administration, laundry facilities, storage, service rooms, garbage, recycling and loading.

Context and Site

The Student Residence at Brock Commons will be an integral part of the future mixed-use Brock Commons hub that is envisioned as an ensemble of student residence buildings that will contribute to student life within and toward a centrally located pedestrian-focused open space shared with Water Gage Road. To contribute to the establishment of Brock Commons, public realm upgrades to Walter Gage Road are to be undertaken in the future

and will include repaving, planting, seating walls, benches, streetlights and garbage and recycling disposal.

The site is located within the Brock Commons student housing hub site designated in the *UBC Vancouver Campus Plan*. The site fronts onto Walter Gage Road, immediately north of the North Parkade on a gently sloping, narrow, open grassed area.

The building is located 6m from the North Parkade to allow for a 5.3m public realm zone along Walter Gage Road that will be interfaced with a sloping sidewalk and a linear sub-walkway that will run approximately one-third the length of the building to mediate the sloping grade and provide accessibility at two points into the building. The linear sub-walkway will be defined by a concrete upstand and wood bench. A 3m wide canopy will cover the sub-walkway. A line of slender Raywood Ash street trees along Walter Gage Road will further define the public realm and complement the vertical expression of the building.

A raised terrace for use by the students residing in the building is located to the west adjacent to the ground level student residence social space. A public open space is located to the east and acts as a hinge for movement of people from the building, the North Parkade and passersby. The public open space is generally hardscaped and includes a triangular-shaped berm defined by an angled bench and planted with a bosque of Cherry trees, a line of Vine Maples alongside the east face of the building, and a single Douglas Fir that connects the site to the landscape of the North Parkade that is surrounded with rows of existing Douglas Firs.

Design Rationale

The Student Residence at Brock Commons is located in the *Campus Core District* of the University. In keeping with the style precedents for new development in the *Campus Core District*, the design of the project takes its inspiration from the collection of International style modernist buildings located on campus, specifically those designed by *Thompson Berwick and Pratt Architects*. The design has been further informed and inspired by taller buildings designed by *Thompson Berwick & Pratt* that are located off campus including *BC Electric* in Victoria and *BC Electric* in Vancouver. Similar to both of these precedent buildings, the massing of the Student Residence at Brock Commons is simple in plan and form, rising upward as an uninterrupted slab.

Of particular note for *BC Electric* in Vancouver is the soaring verticality of the facade, the expressive canopy at the base and the striking cornice at the crown—all architectural devices that have been a source of inspiration in the design of the Student Residence at Brock Commons.

The narrow, slab-form of the building is informed by the constraints of the site and structural considerations regarding the use of a hybrid concrete and mass wood structure. As a result, the floor plan is symmetrically laid out with the primary north and south elevations following suit, while the east and west elevations reflect the asymmetrical layout of the quad end-units within.

The concrete structure at the base is wrapped with extensive floor-to-ceiling curtain wall glazing, coloured glass spandrel panels and transparent coloured glass. Above the base the facade is clad with a combination of white and charcoal metal panels punctuated by an oscillating rhythm of floor-to-ceiling clear-glazed openings with accents of coloured blue glass that create a continuous vertical band of striations. Glazing wraps the corners to dematerialize the edges of the building.

Further accentuating the vertical expression is a series of raised, blue-black vertical splines that draw the eye up to a metal cornice that crowns the building. The cornice is delineated by a series of charcoal-coloured aluminum structural sections set amongst a field of charcoal-coloured metal cladding. The cornice is capped with plates of prefinished aluminum that rise and float above the building parapet.

2. DESIGN POLICY COMPLIANCE

The Student Residence at Brock Commons has been designed in compliance with *The University of British Columbia Vancouver Campus Plan*. Specifically, *Part 3 Design Guidelines* of the *Campus Plan* were used to inform the design of the building, landscape and infrastructure of the project to ensure that all component systems work in harmony to achieve the functional, sustainability and character objectives of the campus.

We note that the design proposes deviations from the *Draft Design Brief* prepared by Campus & Community Planning and summarize the departures as follows:

a) Although the *Draft Design Brief* anticipates future construction of a mixed-use six-storey structure to be built east of the Student Residence at Brock Commons, given that the student residence project is proposed to have a hybrid mass wood and concrete structure, fire safety requirements would dictate that a blank, 2 hour firewall with no windows be constructed between the two developments.

b) Although the *Draft Design Brief* envisions ground-oriented townhouses facing Walter Gage Road with grade separated entries raised between 3' to 5' above finished grade with layered landscaping, it is instead proposed that the ground floor consist of student-oriented study and social uses located directly at grade for ease of access, and to contribute to the vitality of the surrounding public realm.

c) The *Draft Design Brief* suggests there would be a podium/tower expression for the project; however, the narrowness of the site and desired efficiencies of the proposed hybrid mass wood and concrete structure have lead to a simple, rectilinear, extruded slab-form massing. It is proposed that the massing appropriately mediates between the Buchanan academic tower to the west, the Gage Residential towers to the east and the Axis Tower to the north.

If you have any questions or require additional information, please give us a call.

Regards,

Russell Acton ARCHITECT AIBC AAA SAA OAA FRAIC
Principal

Issues

02 Apr 2015 Issued for DP Application

Student Residence at Brock Commons

University of British Columbia

Project Data

civic address	6088 Walter Gage Road University of British Columbia Vancouver, BC
legal address	District Lot 3044 Group 1 New Westminster District except; Firstly; Part on Plan 6147 Secondly; Part on Plan 9301 Thirdly; Part on Plan BCP6556 Fourthly; Part on Plan BCP23719
building height	53.0m proposed (53.0m permitted)
setbacks	
front yard:	5.3m from project boundary / street edge
rear yard:	4.0m from project boundary
side yard(s):	varies; refer to site plan
parking spaces	4 (visitor)
loading spaces	1
bicycle spaces	per Campus Wide Design Guidelines - 2.5.5.b.i
Class 1 (lockers / bike room)	0 proposed (108 required)
Class 2 (weather-protected)	provided off site; refer to site plan (108 required)

Floor Areas

	# of units	area / unit (s.m.)	gross area (s.m.)
Ground Floor			
social & study space			122.6
laundry			31.7
office / mail			39.3
washrooms			15.5
electrical			27.2
mechanical			130.7
loading / waste / recycyling			52.2
potential social & study space			222.5
circulation			156.9
subtotal			**798.6**
Residential Floor			
studio dwelling unit (1 bed / unit)	16	25.2	403.2
quad dwelling unit (4 beds / unit)	2	113.8	227.6
communications / custodial			25.2
mechanical			14.9
electrical			2.7
circulation			144.4
subtotal (per floor)			**777.9**
x 17 floors			x17
subtotal (17 residential floors)			**13,224.3**
Roof			**17.1**
TOTAL FLOOR AREA			**14,040.0**

Note: areas calculated to centre line of exterior wall

SITE AREA	**2,314.4**
SITE COVERAGE (%)	**34.5%**

Drawing List

Architectural

A0.01	Title Sheet + Data Sheet
A0.02	Site Context
A0.03	Site Plan
A0.04	Shadow Analysis
A1.01	Floor Plans
A2.01	Sections
A2.02	Sections
A3.01	Elevations
A3.02	Elevations
A3.03	Elevations

Landscape

L1.1	Design Rationale
L1.2	Landscape Plan

Architectural Symbols

Grid Bubble 1

Text Note Tag 1

Window Tag W02

Exterior Wall Tag W3

Partition Tag P3

Floor Tag F3

Roof Tag R3

Door Tag 1234 (door ID number)

Detail Tag 1/A#.## (drawing number / sheet reference)

Building Section Marker 1/A#.## (drawing number / sheet reference)

Revision Marker 3

Plan Elevation Marker South

Elevation Benchmark EL. 204.12

Geodetic Elevation 96.50 GEODETIC

Design Grade Elevation DG. 204.12

Roof Slope Marker slope

Drawing Title 1 /A1/01 drawing title 1 : 50 (drawing number / drawing title / sheet reference / drawing scale)

Client	**Project Manager**	**Architect**	**Construction Manager**	**Code**	**Structural**	**Mechanical**	**Electrical**	**Envelope**	**Landscape**	**Geotechnical**	**Acoustic**	**Surveyor**
UBC Student Housing & Hospitality Services David Kiloh 6335 Thunderbird Crescent Vancouver BC V6T 1Z4 t 604.822.9705	UBC Properties Trust David English 200-3313 Shrum Lane Vancouver BC V6S 0C8 t 604.731.3103	Acton Ostry Architects Inc. Russell Acton / Matthew Wood / Rafael Santa Ana 111 East 8th Ave Vancouver BC V5T 1R8 t 604.739.3344	Urban One Builders Brent Clund / Blair Wilson 301-611 Alexander Street Vancouver V6A 1E1 t 604.873.5100	GHL Consultants Ltd. Andrew Harmsworth / Gary Chen 950-409 Granville Street Vancouver BC V6C 1T2 t 604.689.4449	Fast + Epp Paul Fast / Bernhard Gafner 201-1672 W 1st Avenue Vancouver BC V6J 1G1 t 604.731.74.12	Stantec Michael Dhont / Svetlana Vujic 1100-111 Dunsmuir Street Vancouver BC V6B 6A3 t 604.696.8000	Stantec Jim Jay / Randy Hing 1100-111 Dunsmuir Street Vancouver BC V6B 6A3 t 604.696.8000	RDH Builing Science Brian Hubbs / Graham Finch 224 West 8th Avenue Vancouver BC V5Y 1N5 t 604.873.1181	Hapa Collaborative Joseph Fry / Hanako Amaya 403-375 West 5th Avenue Vancouver BC V5Y 1J6 t 604.909.4150	Geopacific Consultants Ltd. Steven Foltonoff 215-1200 West 73rd Avenue Vancouver BC V6P 6G5 t 604.439.0922	RWDI Air Inc/ DLA Daniel Lyzun 830-999 West Broadway Vancouver BC V5Z 1K5 t 604.499.8758	Murray & Associates Ltd. Greg Martson 201-12448 82nd Avenue Surrey BC V3W 3E9 t 604.597.9189

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Student Residence at Brock Commons

6088 Walter Gage Road
University of British Columbia

scale	**date**
nts	02 Apr 2015
project code	**status**
TWR	Development Permit
drawn	**checked**
WS / RSA	RA

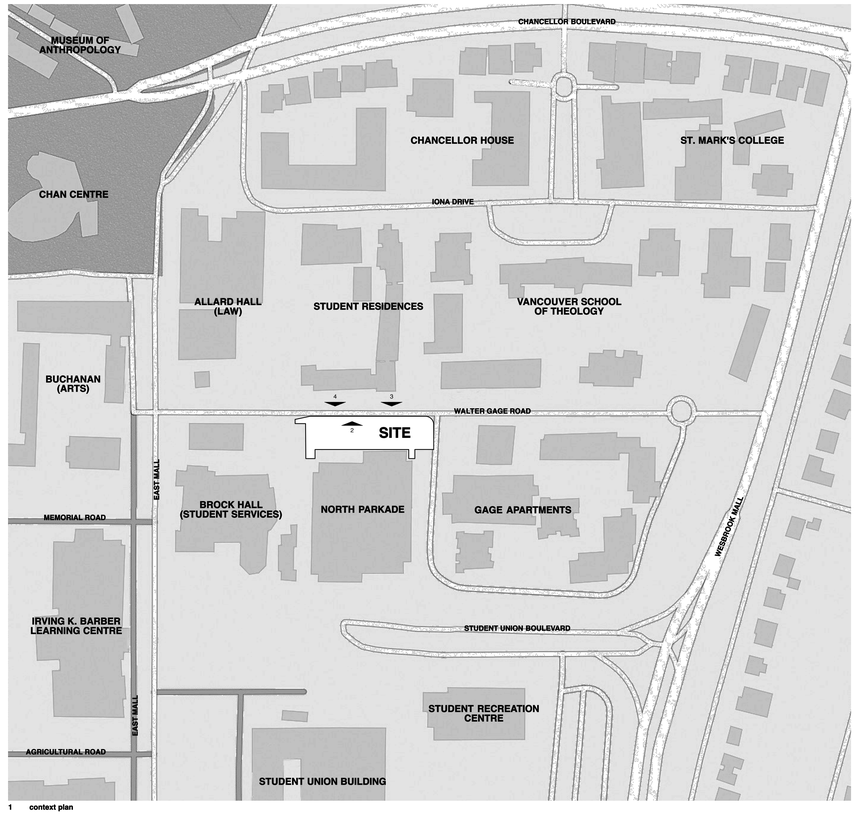
Title Sheet + Data Sheet

drawing number

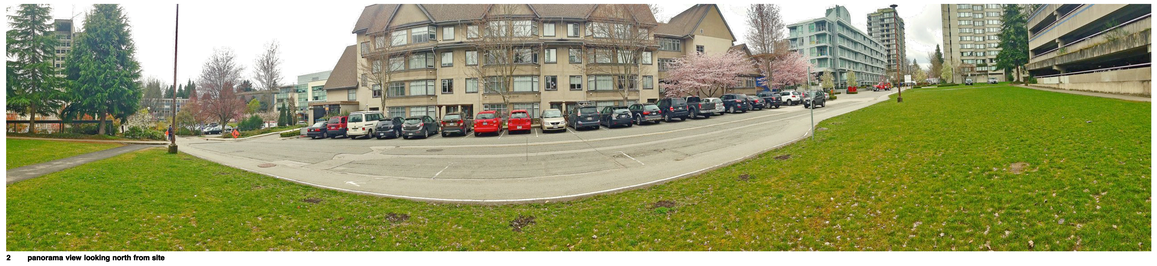
A0.01

issues

02 Apr 2015	Issued for DP Application



1 context plan



2 panorama view looking north from site

3 panorama view looking south over Walter Gage Road to site (at east edge of site)

4 panorama view looking south over Walter Gage Road to site (at west edge of site)

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Student Residence at Brock Commons

6088 Walter Gage Road
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scale	**date**
as noted	02 Apr 2015
project code	**status**
TWR	Development Permit
drawn	**checked**
RSA	RA

Site Context

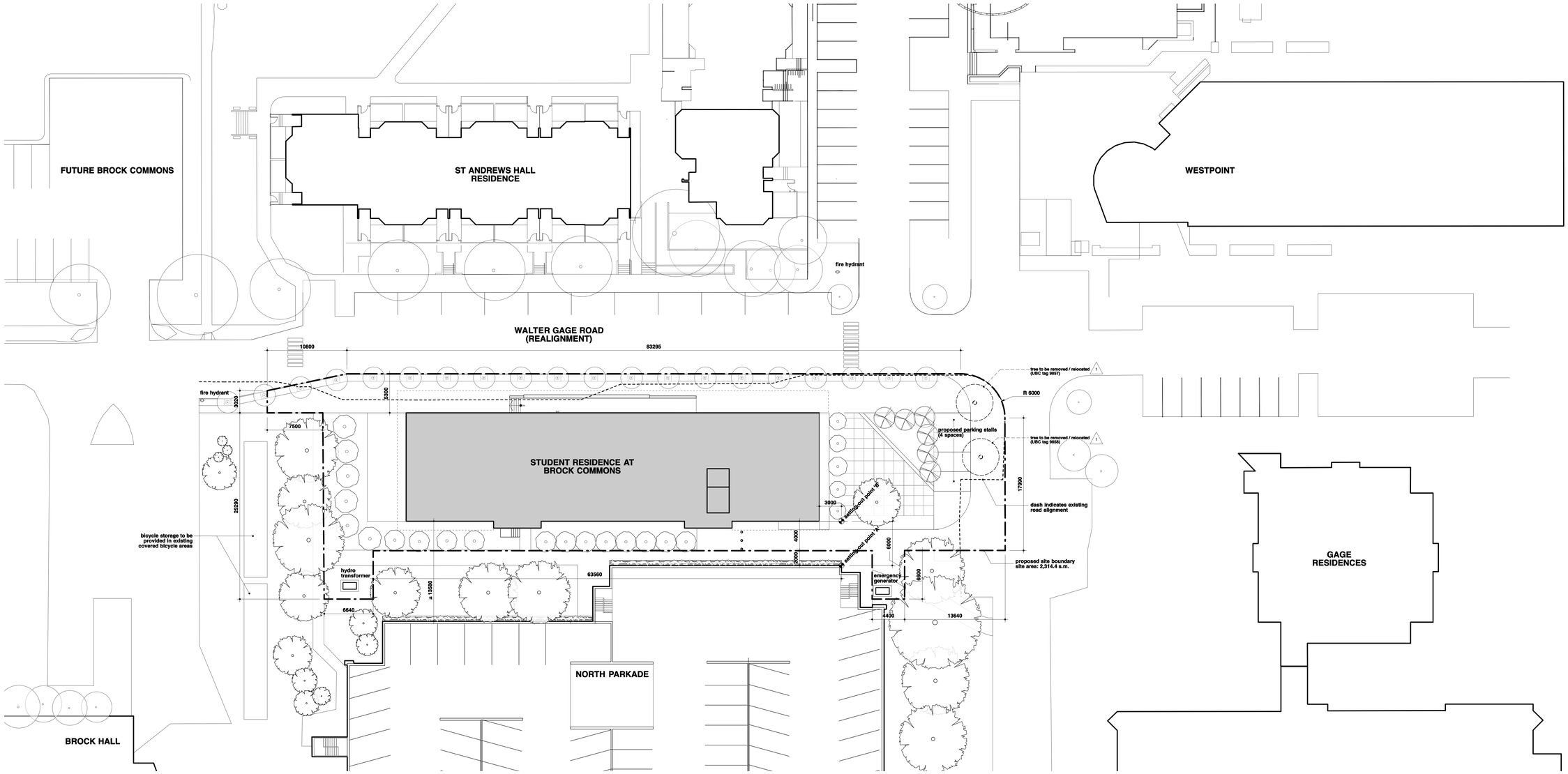
drawing number
A0.02

issues

02 Apr 2015	Issued for DP Application

revisions

10 Apr 2015	DP Application - Additional Information 1



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Student Residence at Brock Commons

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scale	**date**
1:500	10 Apr 2015
project code	**status**
TWR	Development Permit
drawn	**checked**
RSA	RA

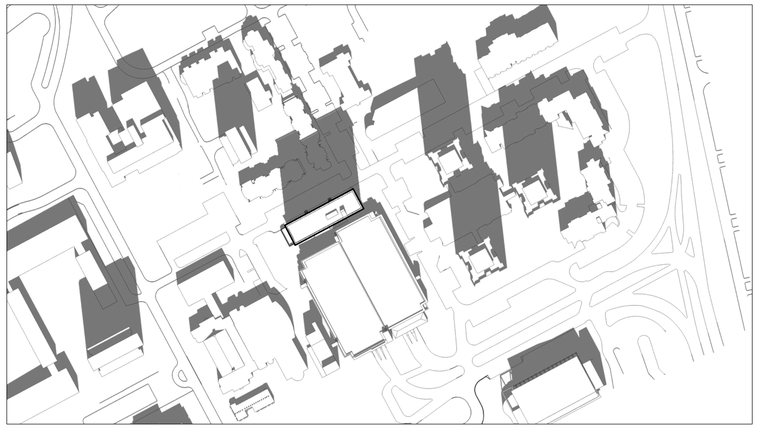
Site Plan

drawing number
A0.03 1

issues

02 Apr 2015 Issued for DP Application

1 spring 10:00 am



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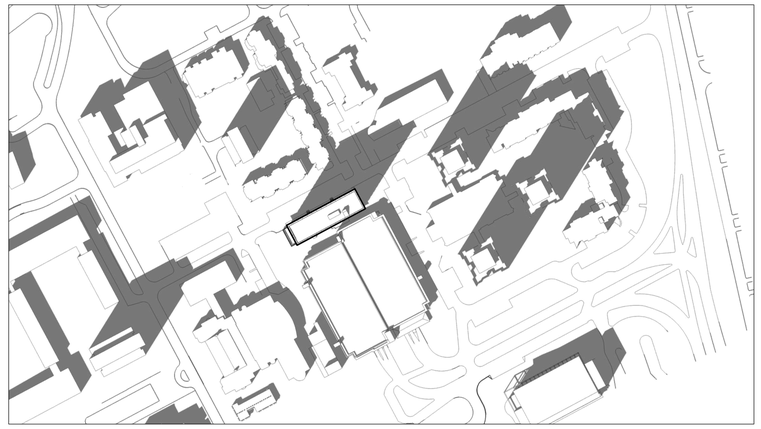
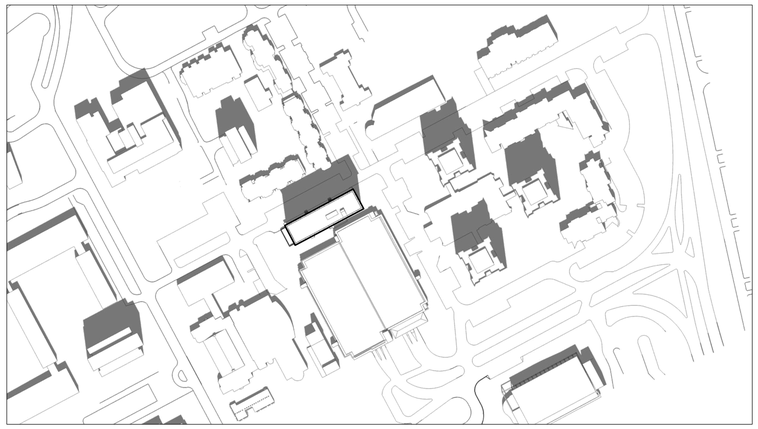


3 spring 2:00 pm

4 summer 10:00 am



5 summer 12:00 pm

6 summer 2:00 pm

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Student Residence at Brock Commons

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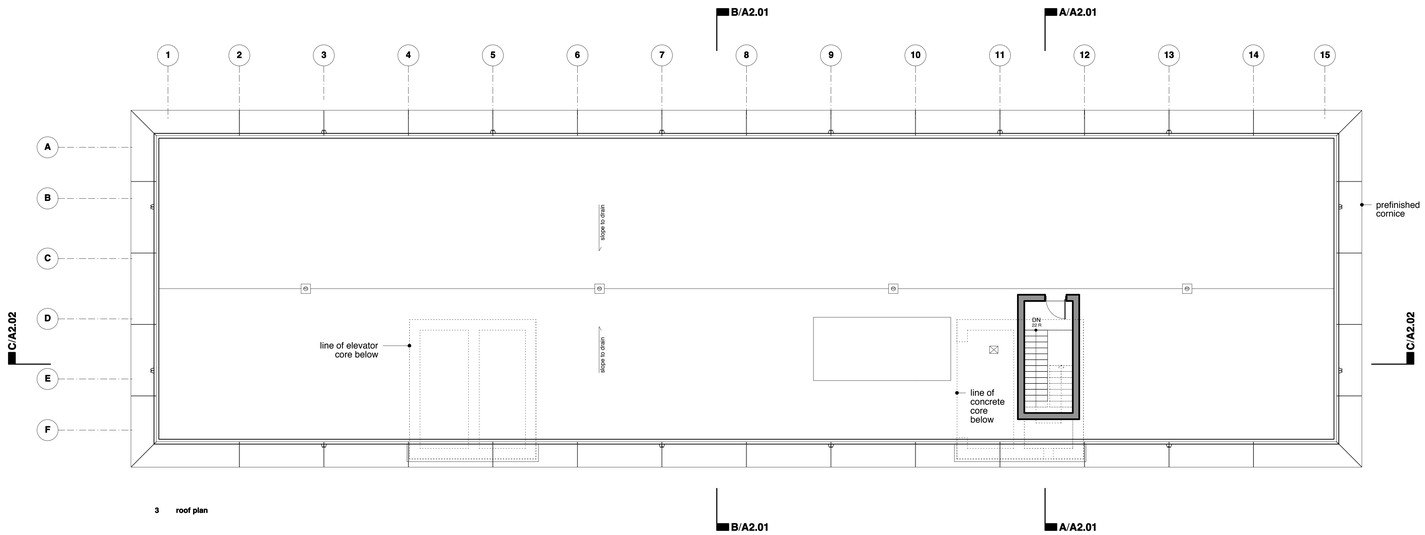
scale	date
NTS	02 Apr 2015
project code	status
TWR	Development Permit
drawn	checked
RSA	RA

Shadow Analysis

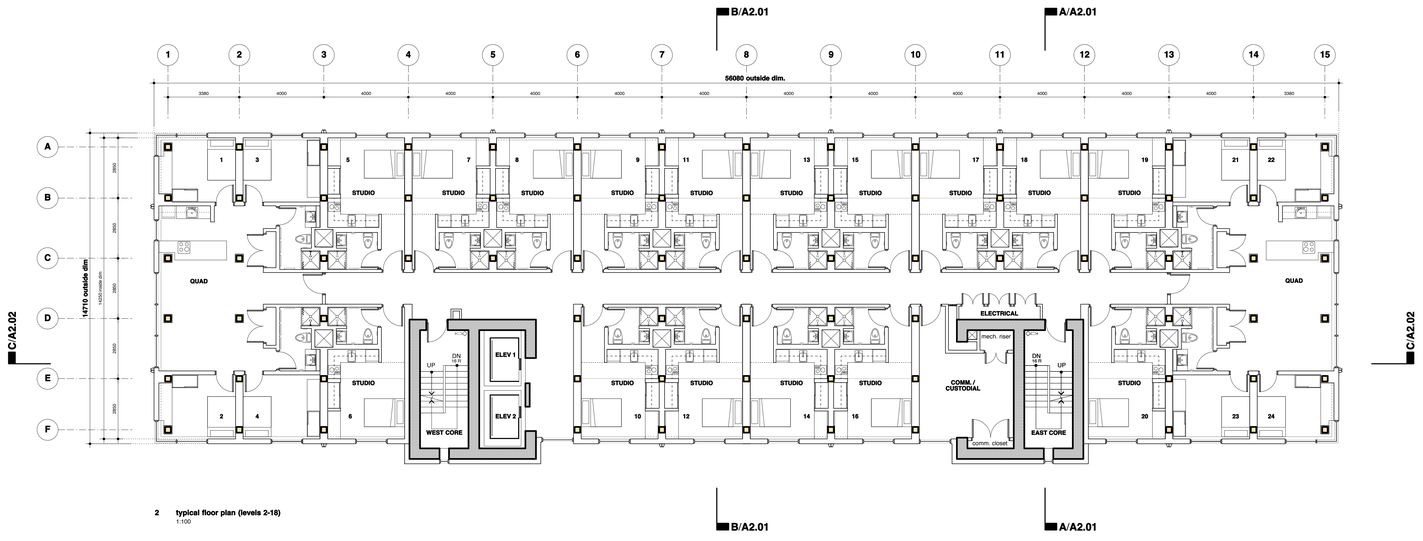
drawing number
A0.04

Issues

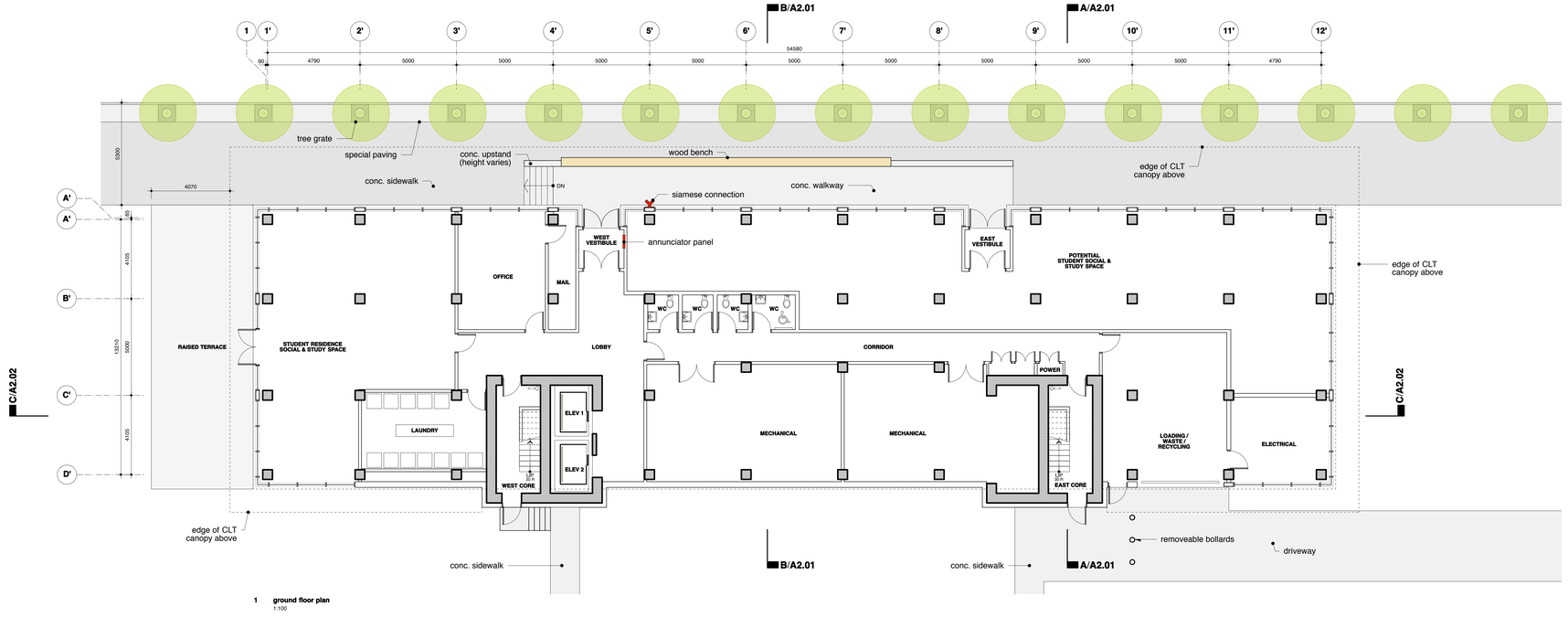
02 Apr 2015	Issued for DP Application



3 roof plan



2 typical floor plan (levels 2-18)
1:100



1 ground floor plan
1:100

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Student Residence at Brock Commons

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1:100	02 Apr 2015
project code	status
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drawn	checked
RSA	RA

Floor Plans

drawing number
A1.01

issues

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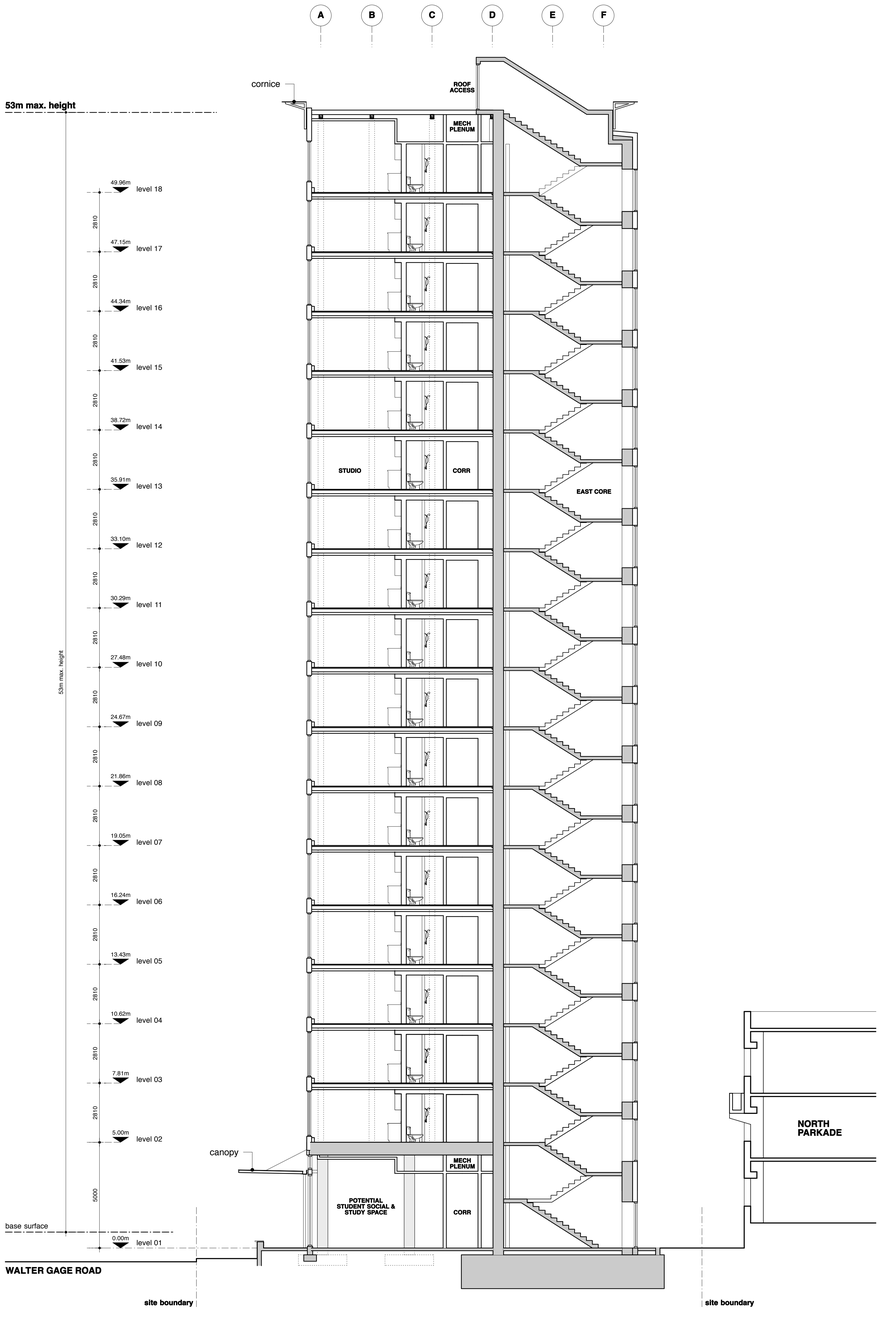
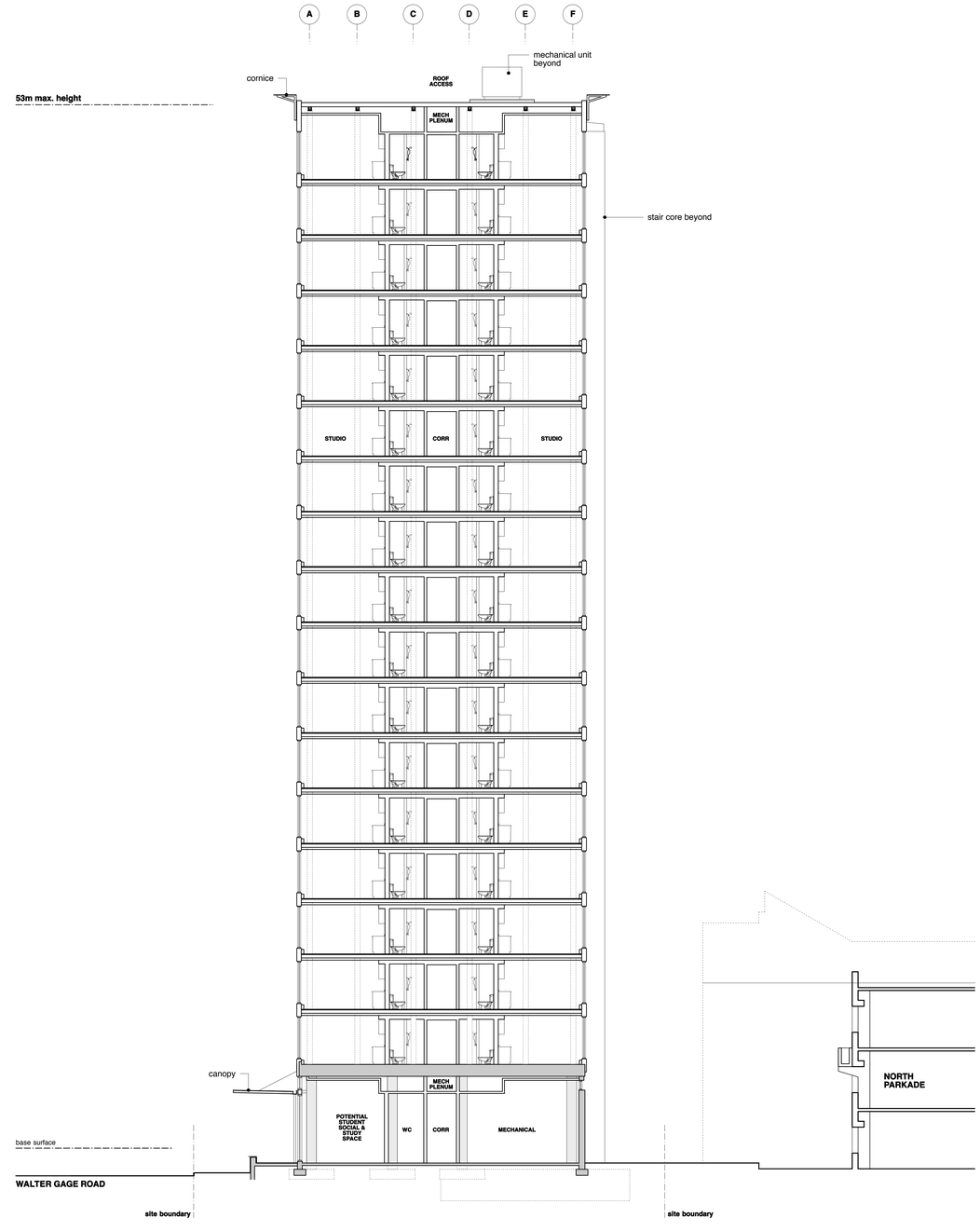


1 section AA



2 section BB

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Student Residence at Brock Commons

6088 Walter Gage Road
University of British Columbia

scale	date
1:100	02 Apr 2015
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TWR	Development Permit
drawn	**checked**
RSA	RA

Sections

drawing number
A2.01

issues

02 Apr 2015 Issued for DP Application

1 **section CC**

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Student Residence at Brock Commons

6088 Walter Gage Road
University of British Columbia

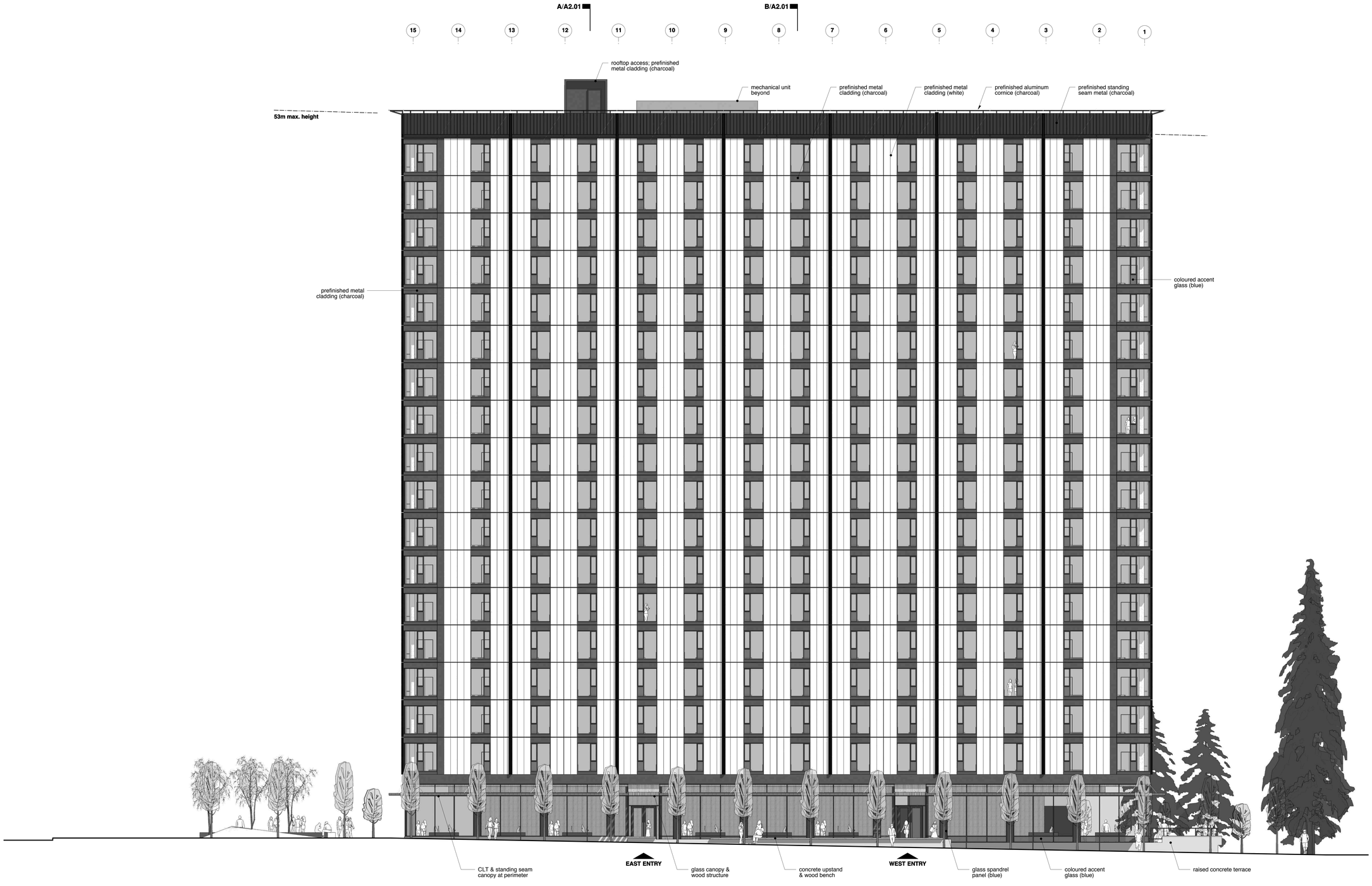
scale 1:100	**date** 02 Apr 2015
project code TWR	**status** Development Permit
drawn MW	**checked** RA

Sections

drawing number
A2.02

Issues

02 Apr 2015 Issued for DP Application



1 north elevation
1 : 100

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Student Residence at Brock Commons

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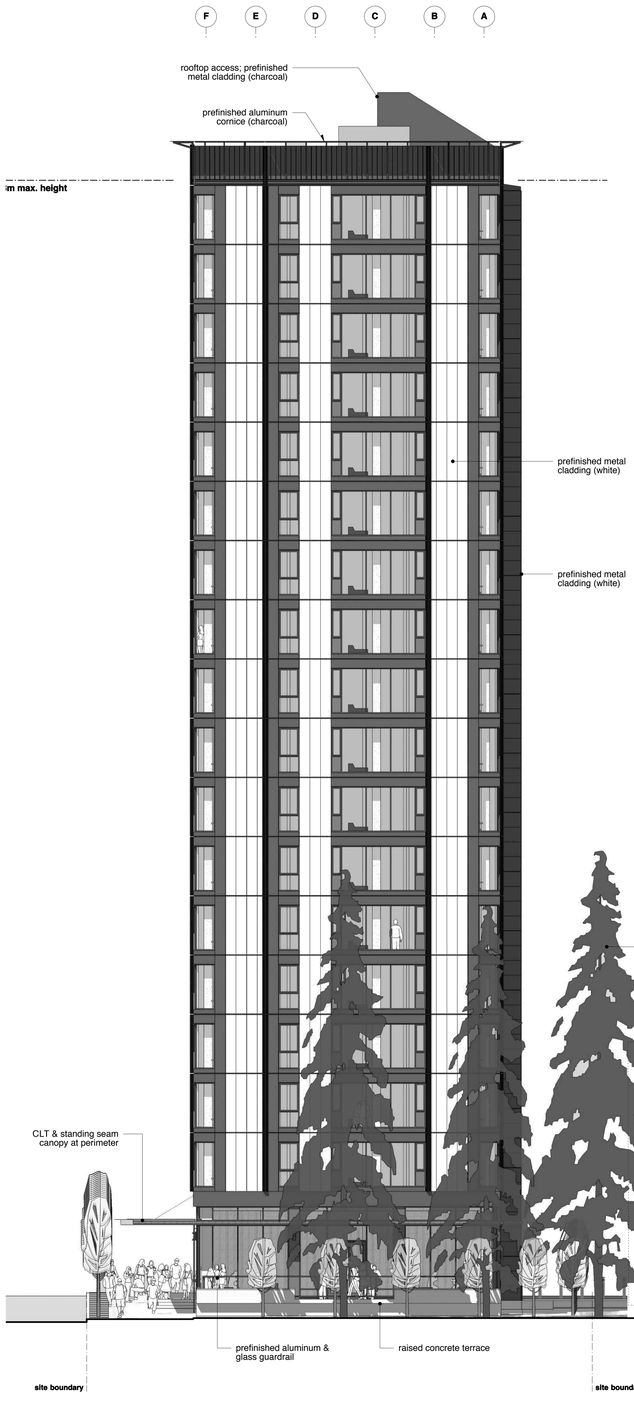
scale 1:100	**date** 02 Apr 2015
project code TWR	**status** Development Permit
drawn RSA	**checked** RA

Elevations

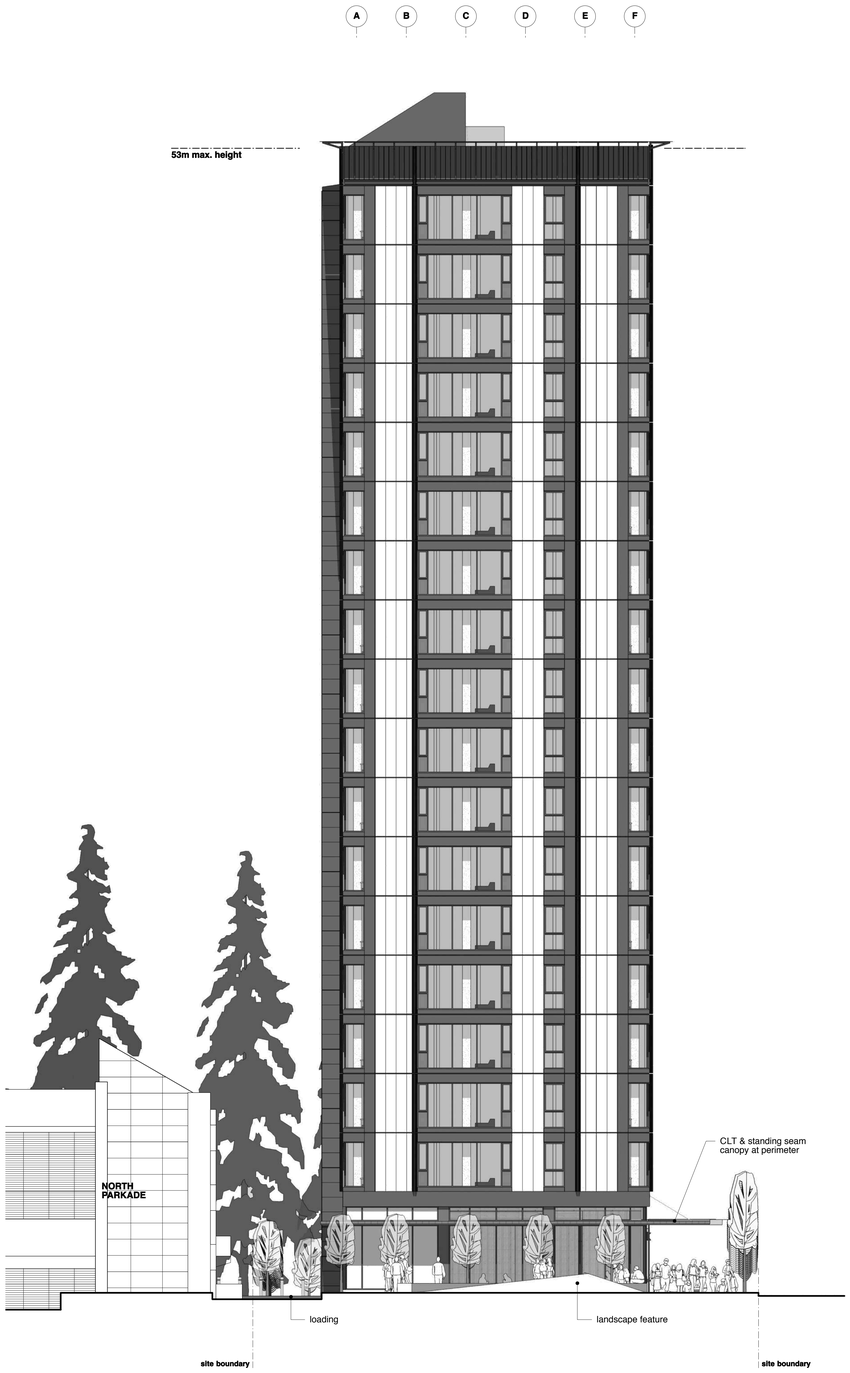
drawing number
A3.01

issues

02 Apr 2015 Issued for DP Application



1 **west elevation**



2 **east elevation**

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A R C H I T E C T S I N C

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Student Residence at Brock Commons

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Elevations

drawing number

A3.02

Issues

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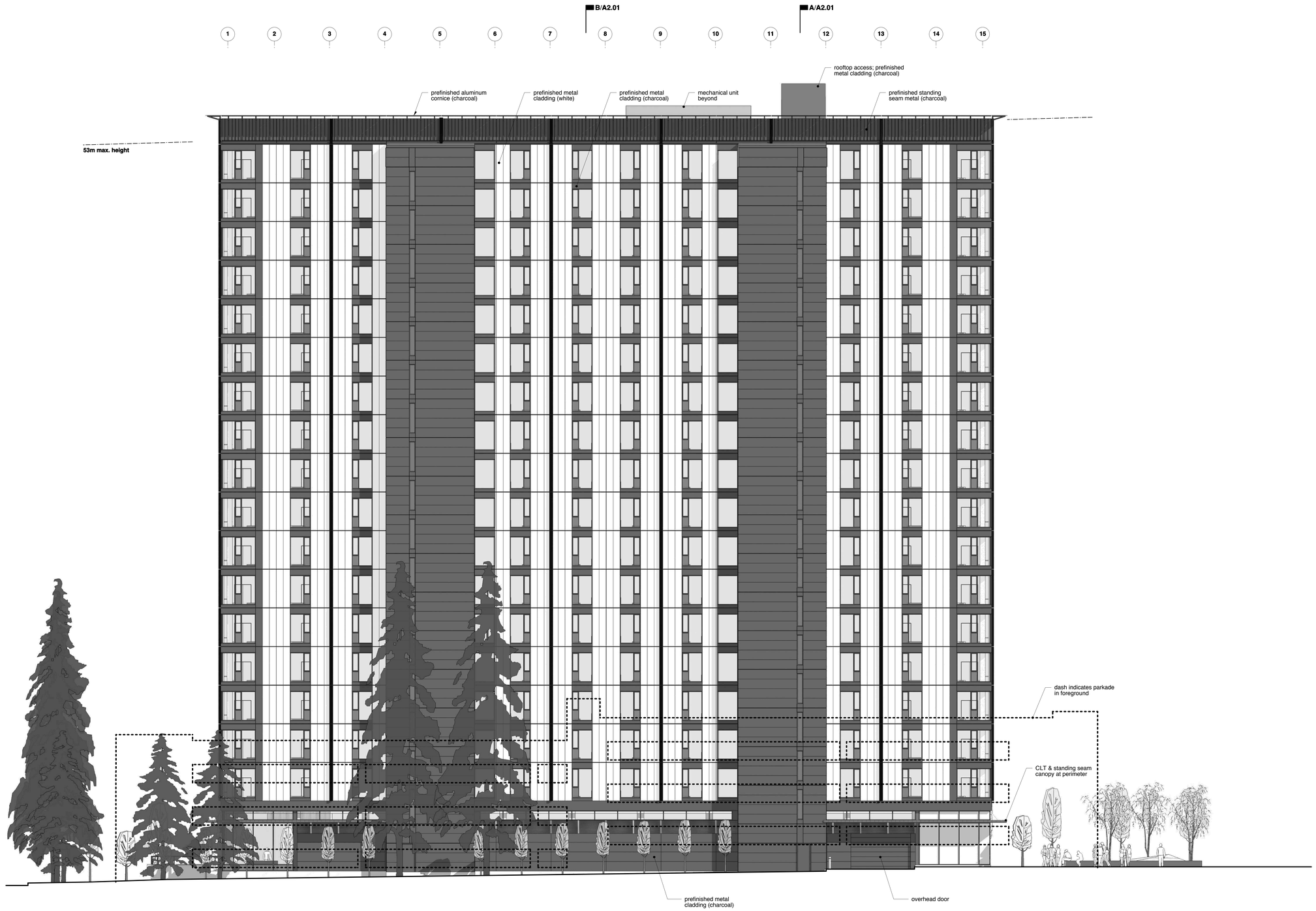

1 south elevation

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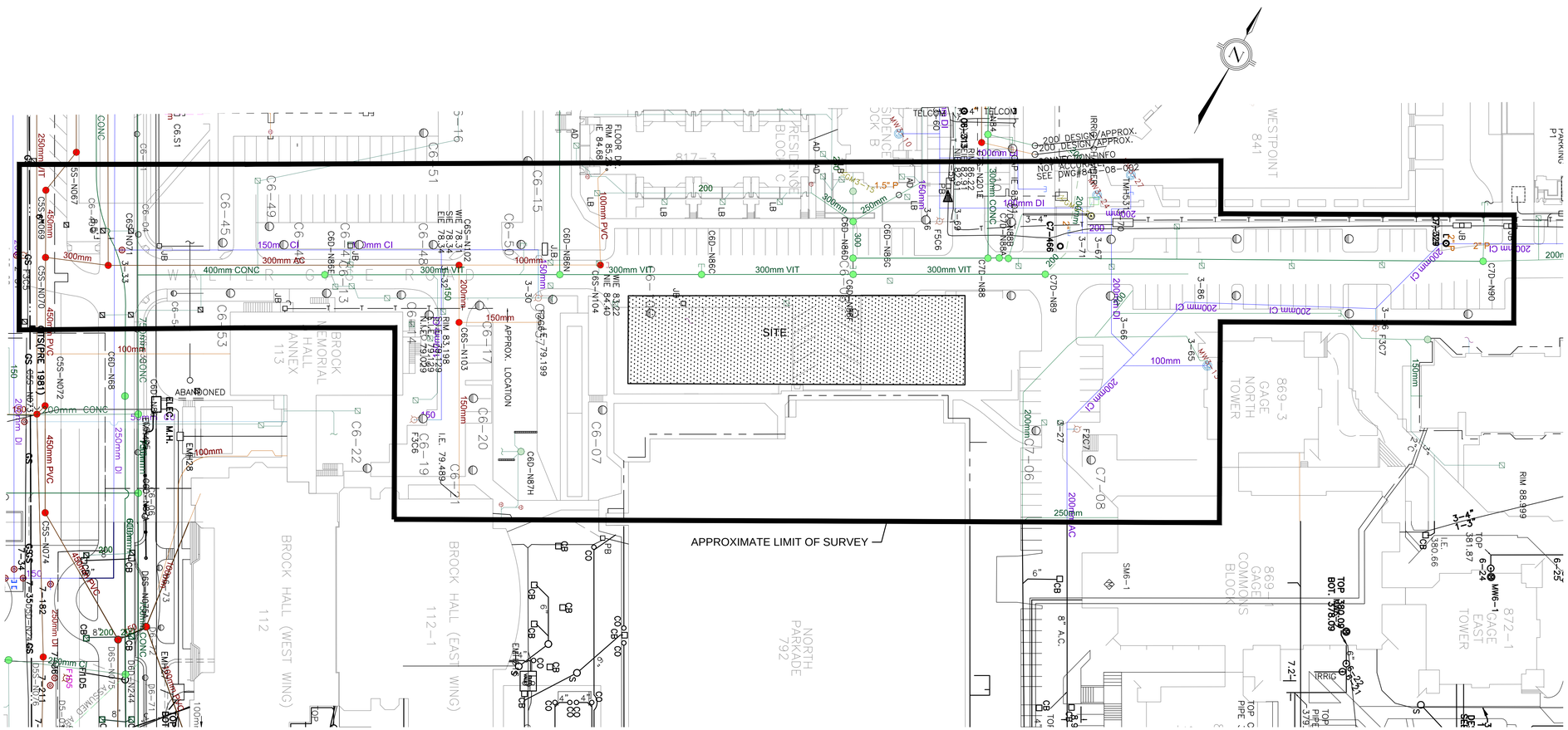
Elevations

drawing number
A3.03



REVISIONS			
6			
5			
4			
3			
2			
1			
No.	DESCRIPTION	MO/DAY/YR	

KAMPS ENGINEERING LIMITED

604-682-2020 kamps@rogers.com

UBC PROPERTIES TRUST

CLIENT: UBC PROPERTIES TRUST

BUILDING/FACILITY:

DRAWING TITLE:

SURVEY LIMITS
PRELIMINARY SITE LOCATION PLAN - BROCK TALL TOWER

SEAL:

PROJECT TITLE: BROCK COMMONS

DRAWN: J.N.	SCALE: HORZ: 1:500m	PROJECT No.: 8122	
DESIGN: M.K.	DATE: SEPT. 2014	DRAWING No.: 100-S	REV.
CHECKED			

DESIGN RATIONALE

1 CAMPUS POCKET PLAZAS

There are two small plazas (east and west) that act as social book ends for the project. The east end of the site provides an open public plaza integrating future pedestrian circulation as well as encouraging social interaction between residents, other students, faculties and visitors at UBC. The space will be universally accessible and flexible to accommodate different needs, where one can sit solo at the bench and study with a laptop computer or relax in a small group on the lawn under the cherry trees.

The west end of the site provides an outdoor patio surrounded by a grove of trees that extends from the building. This semi-private "outdoor living room" will create opportunities for residents within the building to socialize and create a place of belonging for residents.

2 CONTEMPORARY WEST COAST WOODLAND

A large portion of the landscape planting area is covered by native trees, shrubs and groundcovers inspired by Pacific Spirit Park, evoking the surrounding environment and revealing materials used for the building.
The west and south sides of the site are planted by a West Coast forest edge planting palette such as vine maples and dogwood trees with native and adopted shade loving ground covers.
The east plaza holds a single Douglas fir tree as a symbol of the coniferous West Coast forest while providing contrast to the mounded lawn and cherry trees.

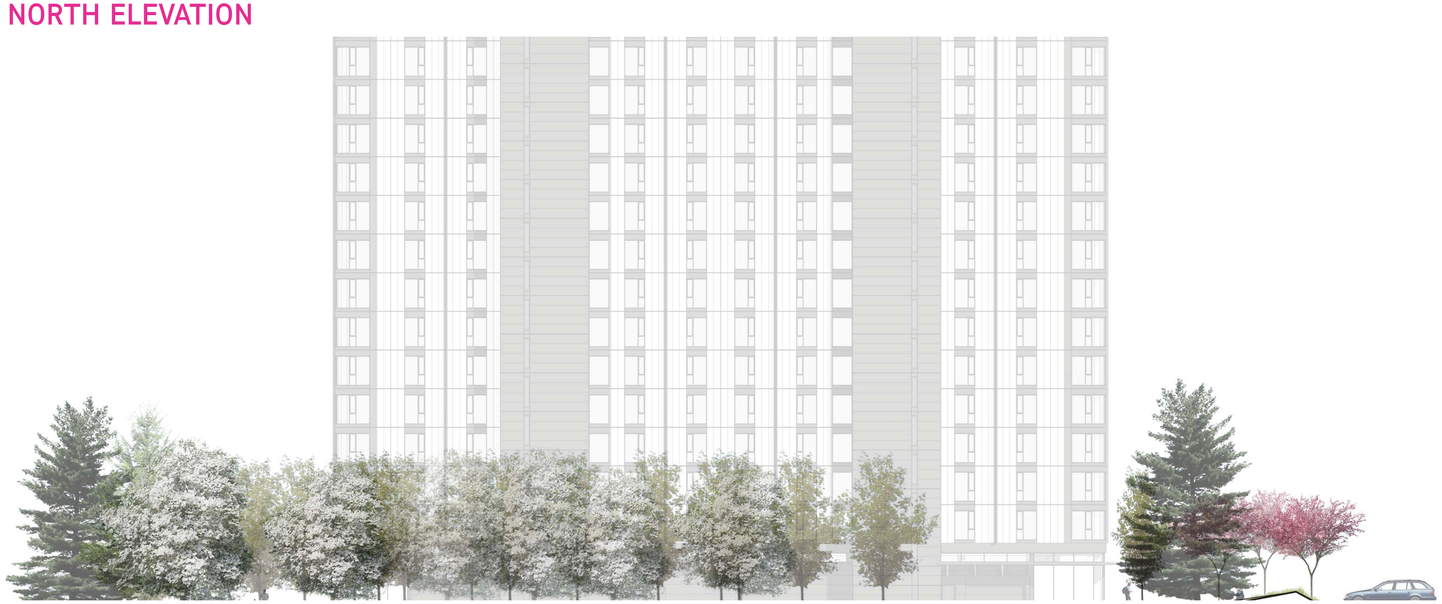
3 HIGH AND LOW TECH ENVIRONMENTAL SUSTAINABILITY

Sustainability will be presented in both high and low technological forms in this project. While the building showcases significant opportunity for sustainable building practices, in contrast the sustainable landscape will be expressed in a low tech approach. This includes native and adopted woodland planting ideal for low water usage (lowered irrigation), storm water reduction, lower maintenance, and habitat contribution. The site furnishings and hardscape materials selection are both sensitive to local and recycled materials where possible.

4 CEPTED

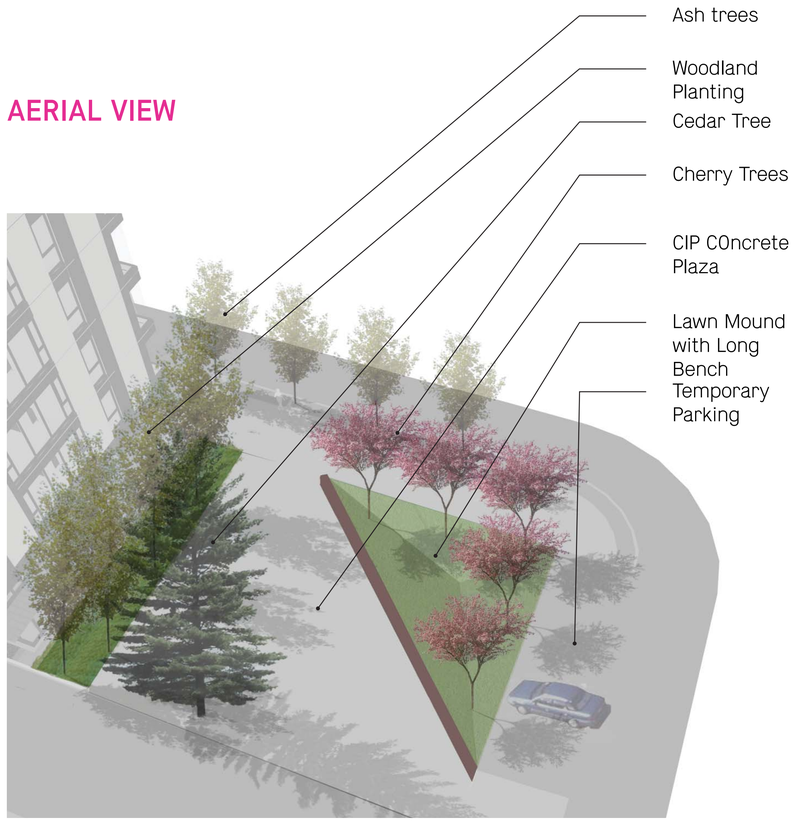
Exterior design considerations address safety and security of users through landscape lighting, planting and casual monitoring. landscape lighting will be accommodated through pedestrian level lights located along the Walter Gage Road and pathway North of the North Parkade. Higher lighting levels are proposed at East plaza with tree uplights for Cherry trees and Doug fir tree.
Tree canopies and shrub layers will be designed to maintain open lines of sight between 1.2m and 2.5m above grade.
Sightlines are provided through the site from the above-grade suites overlooking the plazas, Walter Gate Road and pathways as well as from the streets. This is further supported through a strong indoor-outdoor relationship at the ground level.

NORTH ELEVATION



Scale 1:200

AERIAL VIEW



HAPA
Landscape Architecture
Urban Design

403 - 375 West Fifth Avenue
Vancouver BC, V5Y 1J6

604 909 4150
hapacobo.com

No.	Description	Date
1	Issued For DP	Apr. 02, 2015

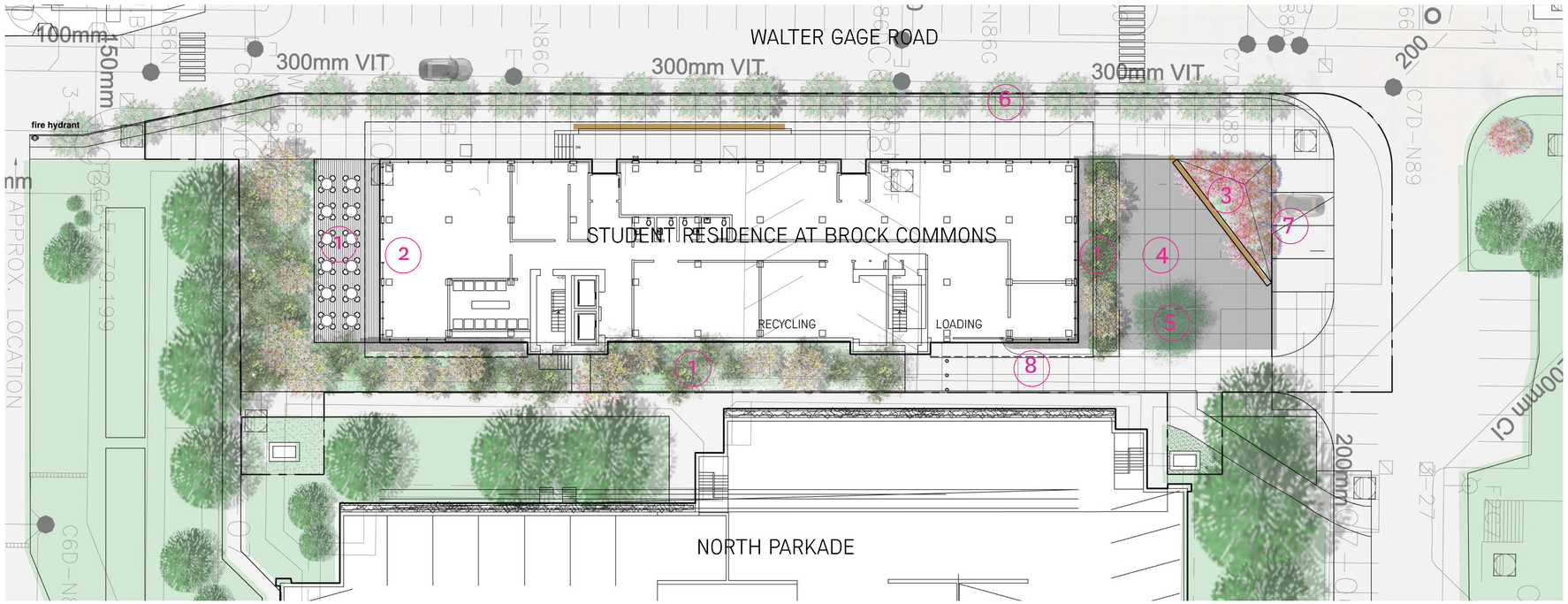
Student Residence at Brock Commons
6088 Walter Gage Road
University of British Columbia

Landscape Design Rationale

Date	Apr. 02, 2015
Project No.	1506
Scale	as noted
Drawn|Checked	ha | JF

Drawing Number
L1.1

LANDSCAPE SITE PLAN



1 **West Coast Woodland**
Vine maples and Dogwoods with native ferns

2 **Outdoor Terrace**
Raised indoor/outdoor terrace enclosed with guardrails;
Cafe tables and chairs

3 **Cherry Mound**
Cherry trees on mounded lawn with long bench facing plaza

4 **Plaza**
Open CIP concrete paving plaza

5 **Feature Tree**
A single feature Douglas Fir tree

6 **Walter Gage Street Trees**
Raywood Ash trees following the UBC Campus Street Tree Plan with UBC standard street lights

7 **Temporary Parking**
Four temporary parking stalls

8 **Service Lane**
CIP concrete paving to match plaza and sidewalk;
Removable bollards

Scale 1:200

TREE LEGEND

Existing Tree
Cherry
Douglas Fir
Raywood Ash
Vine Maple
Dogwood

PLANT LIST

SYM	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE
TREES				
AC	22	ACER CIRCINATUM	VINE MAPLE	2.5-3.0m CLUMP B&B
CN	14	CORNUS NUTTALLII	CORNUS DOGWOOD	5 cm CAL. B&B
FA	19	FLAVINUS ANGUSTIFOLIA ‘RAYWOOD’	RAYWOOD ASH	7.0m CAL. B&B
PM	1	PEUDOTSUGA MENZIESII	DOUGLA FIR	2.5m HT. B&B
P	5	PRUNUS	CHERRY	5.0cm CAL. B&B
SHRUBS AND GROUDCOVERS				
Ac	250	ASARUM CAUDATUM	WILD GINGER	#1 POT, 450mm O.C.
At	250	ASPLENIUM SCOLOPENDRUM	HART’S TONGUE FERN	#1 POT, 450mm O.C.
Bs	250	BLECHNUM SPICANT	DEER FERN	#1 POT, 450mm O.C.
Po	150	POLYSTICHM MUNITUM	SWORD FERN	#2 POT, 450mm O.C

LIGHTING PLAN

Scale 1:300

S-01: (5) ROADWAY LIGHT STANDARD, LUXEON T LED BAR, 58W/6000 LUMEN, 15’ HT.WITH NEW BASES AND POLES,

S-03: SPECIAL LIGHTING: (6) FOCUSED SPOTLIGHT FOR TREE FOLIAGE, LIGMAN UTAH 2 LED 3W, 4000K, PRODUCT TBD.

S-02: (8) iLLUMINATED BOLLARD, SENTRY 2868 REBELLE ARCHITECTURAL LIGHTING, MH 100W

NOTES:
LIGHTING LAYOUT IS SCHEMATIC ONLY.

FINAL LIGHTING LAYOUT AND FIXTURE SELECTION TO BE COMPLETED BY REGISTERED PROFIESSIONAL LIGHTING DESIGNER IN ACCORDANCE WITH UBC DESIGN GUIDELINES.

FINAL FIXTURE SELECTION TO BE VERIFIED BY UBC ENGINEERING SERVICES, AND C&CP.

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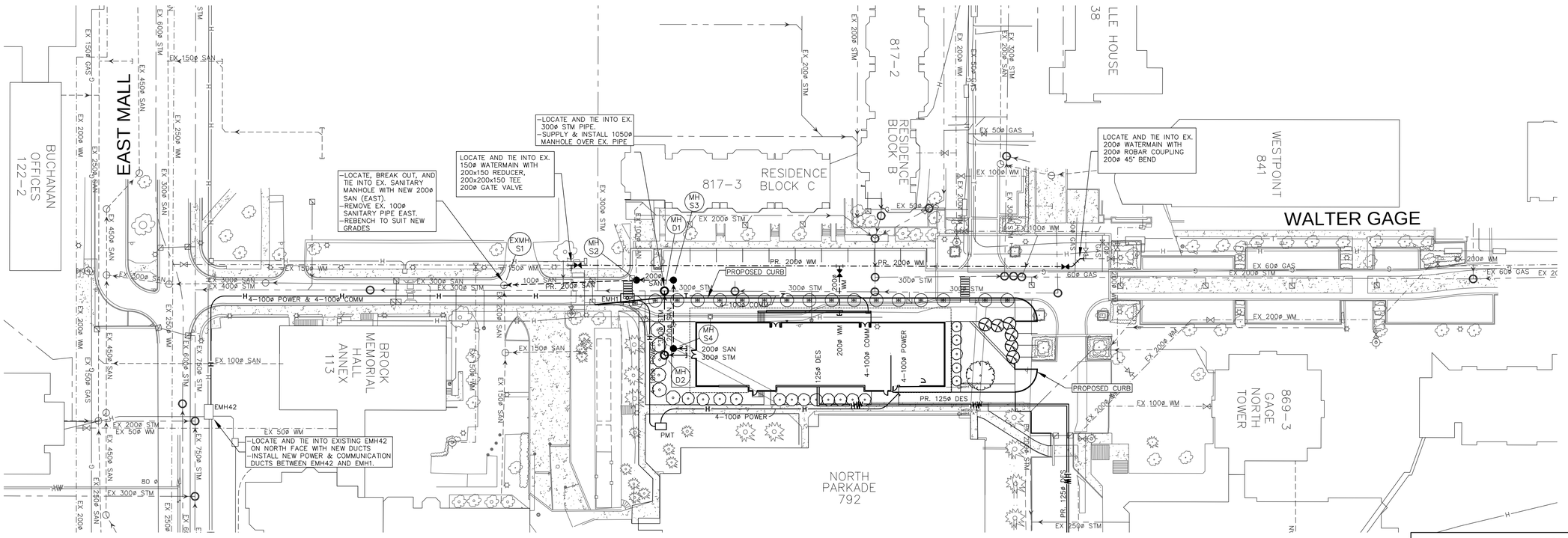
No.	Description	Date
1	Issued For DP	Apr. 02, 2015

Student Residence at Brock Commons
6088 Walter Gage Road
University of British Columbia

Landscape Concept Plan

Date	Apr. 02, 2015	Drawing Number
Project No.	1506	L1.2
Scale	as noted	
Drawn|Checked	ha | JF	



LEGEND	EXISTING	PROPOSED
STORM SEWER		
SANITARY SEWER		
WATERMAIN		
STEAM		
STORM MANHOLE		
SANITARY MANHOLE		
CATCH BASIN		
VALVE		
TRIUMF LINE (RADIOACTIVE)	R	R
GAS LOW PRESSURE (0.6psi)	G LP	G LP
GAS HIGH PRESSURE (10psi)	G HP	G HP
TELECOM	T	T
HYDRO LINE	H	H
UTILITY POLE		
UTILITY/HYDRO MANHOLE		
TRIUMF MANHOLE		
LIGHT STANDARD		
SIGN		

ALL ELEVATIONS ARE GEODETIC AND REFER TO UBC MONUMENT "W-W" ELEVATION = 93.631 m
LOCATION: EAST MALL IN FRONT OF CEME BUILDING BETWEEN AGRONOMY ROAD & UNIVERSITY BOULEVARD

- THE INFORMATION SHOWN FOR EXISTING UTILITIES WAS PROVIDED BY OTHERS. THE INFORMATION IS SHOWN FOR GENERAL INFORMATION ONLY AND HAS NOT BEEN CONFIRMED OR VERIFIED BY KAMPS ENGINEERING LIMITED.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION.
- ALL EXISTING UTILITIES, TIE-IN POINTS AND CROSSINGS MUST BE LOCATED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE OR DISCREPANCY FROM DESIGN IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER FOR REVIEW AND ASSESSMENT. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY THE ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.

REVISIONS	No	DESCRIPTION	MO/DAY/YR
	6		
	5		
	4		
	3		
	2		
	1		

KAMPS ENGINEERING LIMITED
604-682-2020 kamps@rogers.com

UBC PROPERTIES TRUST

CLIENT: UBC PROPERTIES TRUST

BUILDING/FACILITY:

DRAWING TITLE: PROPOSED SITE SERVICING PLAN

SEAL

PROJECT TITLE: TALL WOOD - BROCK COMMONS

DRAWN	SCALE	PROJECT No.
J.N.	HORZ: 1:500m	8122
DESIGN	DATE	DRAWING No. / REV.
M.K.	APRIL 2015	200
CHECKED		

a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

Building Operations
Department
2329 West Mall
Vancouver, BC V6T 1Z4

Phone 604 822 2172
Fax 604 822 6969
firstname.lastname@ubc.ca
www.buildingoperations.ubc.ca

To: Frank Crudo – Superintendent Municipal Services
From: Collin Varner – aboriculturist/horticulturist
Date: March 30, 2015
Subject: North Parkade

I have been informed by Warren Schmidt, Architect from Action Ostry Architects Inc. that there is a proposal to build a new building at 6088 Walter Gage Road. In doing this two trees will be compromised.

Species: Pyrus calleryana “Chanticleer” / Flowering Pear
Tag No.: 9858 & 9857
DBH: 4 inches
Condition: good
Location: 6088 Walter Gage Road, south side behind North Parkade
Comments: If the project goes ahead our department will be transplanting these two pear trees to another location before construction starts.

Regards,

Collin Varner

Cc: wschimdt@actonostry.ca

Student Residence at Brock Commons
LEED v4 Preliminary Scorecard

6088 Walter Gage Road, UBC

Stantec

19-Mar-2015

63	20	39	126 Possible Points	Certified, 40-49; Silver, 50-59; Gold, 60-79; Platinum, 80+

Y	?	N	Credit	Comments
1	**0**	**0**	**Integrative Process (IP)**	
1			Integrative Process	Development process to meet requirements for integrative project planning.
11	**1**	**17**	**Location and Transportation (LT)**	
		16	LEED for ND Location	Project is not located within a LEED ND certified boundary.
1			Sensitive Land Protection	Project is located on a previously developed site.
		1	High Priority Site	Project is not located on a historic, priority or contaminated site.
3			Surrounding Density and Diverse Uses	Project meets diverse uses. Residence itself meets density requirements.
5			Access to Quality Transit	Project in close proximity to UBC bus loop
1			Bicycle Facilities	UBC bicycle storage requirements are adequate, and surrounding bicycle network meets credit requirements.
1			Reduced Parking Footprint	No new parking to be installed. Transit service adequate for credit requirements.
	1		Green Vehicles	Pending coordination with UBC Sustainability.
3	**4**	**2**	**Sustainable Sites (SS)**	
Y			Construction Activity Pollution Prevention	Standard ESC practices expected to meet Credit requirements.
Y			Environmental Site Assessment	Site assessment to be conducted.
	1		Site Assessment	To be determined with existing research and literature available at UBC.
		1	Site Development—Protect or Restore Habitat	Site conditions do not meet credit requirements
		1	Open Space	Site conditions do not meet credit requirements
	3		Rainwater Management	Pending outcome of UBC's Integrated Stormwater Management Plan
2			Heat Island Reduction	Roof and non-roof materials specified must be reflective.
1			Light Pollution Reduction	Lighting design expected to meet credit calculations. BUG ratings to be examined by electrical engineer and interiors.
5	**0**	**6**	**Water Efficiency (WE)**	
Y			Indoor Water Use Reduction	Prerequisite achievement expected.
Y			Outdoor Water Use Reduction	Reduced irrigation option to be applied.
Y			Building-Level Water Metering	Prerequisite achievement expected.
2			Outdoor Water Use Reduction	Minimal irrigation to be installed on site.
2		4	Indoor Water Use Reduction	30% feasible, based on Ponderosa design.
		2	Cooling Tower Water Use	No cooling provided in the building. Credit not applicable.
1			Water Metering	Install permanent water meters for 2 water supplies (irrigation, indoor plumbing and fixtures, domestic hot water, boiler, reclaimed water or other process water)

20	4	9	**Energy and Atmosphere (EA)**	
Y			Fundamental Commissioning and Verification	Commissioning agent to be engaged earlier, before design development phase is complete.
Y			Minimum Energy Performance	5% improvement for new construction required, based on ASHRAE 90.1-2010.
Y			Building-Level Energy Metering	Building level metering is a UBC requirement.
Y			Fundamental Refrigerant Management	Refrigerants expected to meet credit requirements.
11	3	4	Optimize Energy Performance	ASHRAE 90.1-2010 is a more stringent standard compared to its 2007 predecessor. In general, this may result in less energy savings as the baseline has become more stringent. The buildings' timber frame is expected to have a greater thermal performance compared to conventional designs due to less thermal bridging.
1	1	1	Renewable Energy Production	At least 1 point expected from the BRDF contribution to the campus' energy supply.
6			Enhanced Commissioning	Commissioning scope to include monitoring-based, and building envelope commissioning options. Additional fees to be expected.
1			Advanced Energy Metering	Consistent with UBC technical guidelines for energy metering
		2	Demand Response	High effort credit, which will reduce peak energy demand and limited reductions on overall consumption.
1			Enhanced Refrigerant Management	Refrigerants expected to meet credit requirements. Preliminary calculations to be completed during design development.
		2	Green Power and Carbon Offsets	Green Power not encouraged at UBC.
5	3	5	**Materials and Resources (MR)**	
Y			Storage and Collection of Recyclables	Additional recycling room space will be required to include batteries, mercury-containing lamps, e-waste.
Y			Construction and Demolition Waste Management Planning	Creation of Construction Waste Management Plan is standard practice for contractors.
		5	Building Life-Cycle Impact Reduction	Not applicable to the project.
	2		Building Product Disclosure and Optimization - Environmental Product Declarations	Depending on the products available to the BC market, products that contribute to the achievement of this credit will be considered. Stantec will work closely with the contractor to monitor and recommend products that meet the criteria.
2			Building Product Disclosure and Optimization - Sourcing of Raw Materials	Stantec to work closely with contractor to ensure that thresholds are met.
1	1		Building Product Disclosure and Optimization - Material Ingredients	Stantec to work closely with contractor to ensure that products meet the declaration programs specified.
2			Construction and Demolition Waste Management	A high percentage of construction waste diversion expected.

8	**8**	**0**	**Indoor Environmental Quality (EQ)**	
Y			Minimum Indoor Air Quality Performance	Prerequisite requirements expected to be met. Active ventilation for each of the occupied spaces in the suite to be provided.
Y			Environmental Tobacco Smoke (ETS) Control	Smoking prohibited by student housing.
1	1		Enhanced Indoor Air Quality Strategies	EQ credits from 2009 combined to this credit. Increased ventilation, CO2 monitoring, exterior contamination prevention and additional source control montoring required for an additional point.
1			Construction Indoor Air Quality Management Plan	Contractor IAQ management protocol expected.
	2		Indoor Air Quality Assessment	Flushing and air testing are difficult and/or expensive to execute in a multi-unit residential building.
3			Low Emitting Materials	Products specified will be below VOC limits.
2			Interior Lighting	Adequate lighting controls expected.
1			Thermal Comfort	Mechanical system expected to comply with ASHRAE 55-2010
	3		Daylight	Daylight modeling to confirm credit compliance. Daylight measurement for an additional point.
	1		Quality Views	Further analysis required, given that the building will be adjacent to a parkade.
	1		Acoustic Performance	Further analysis of building materials required.
6	**0**	**0**	**Innovation (IN)**	
5			Innovation	Possible innovation strategies include: Community engagement, Red list items, Structural innovation, Whole-Building Life Cycle Analysis
1			LEED Accredited Professional	LEED APs in the project team.
4	**0**	**0**	**Regional Priority (RP)**	
1			Regional Priority	
1				
1				
1				