

ATTACHMENT A

This forms part of application

DP16-0297 DVP16-0298



City of
Kelowna
COMMUNITY PLANNING

Planner
Initials

LK

DEVELOPMENT PERMIT / DEVELOPMENT VARIANCE PERMIT

City of
Kelowna

APPROVED ISSUANCE OF DEVELOPMENT PERMIT / DEVELOPMENT VARIANCE PERMIT NO. DP16-0297/DVP16-0298

Issued To: Suntec Holdings Corporation Inc. No. BC0995201
Site Address: 225 Rutland Road S
Legal Description: Lot A Section 23 Township 26 ODYD Plan KAP84050
Zoning Classification: C4 – Urban Centre Commercial
Development Permit Area: Revitalization

SCOPE OF APPROVAL

This Permit applies to and only to those lands within the Municipality as described above, and any and all buildings, structures and other development thereon.

This Permit is issued subject to compliance with all of the Bylaws of the Municipality applicable thereto, except as specifically varied or supplemented by this Permit, noted in the Terms and Conditions below.

The issuance of a Permit limits the Permit Holder to be in strict compliance with regulations of the Zoning Bylaw and all other Bylaws unless specific Variances have been authorized by the Permit. No implied Variances from bylaw provisions shall be granted by virtue of drawing notations that are inconsistent with bylaw provisions and that may not have been identified as required Variances by the applicant or Municipal staff.

1. TERMS AND CONDITIONS

THAT Development Permit No. DP16-0297 for Lot A Section 23 Township 26 ODYD Plan KAP84050, located at 225 Rutland Rd S, Kelowna, BC to allow the construction of a multiple dwelling housing be approved subject to the following:

- a) The dimensions and siting of the building to be constructed on the land be in accordance with Schedule "A";
- b) The exterior design and finish of the building to be constructed on the land be in accordance with Schedule "B";
- c) Landscaping to be provided on the land be in accordance with Schedule "C"

- d) The applicant be required to post with the City a Landscape Performance Security deposit in the form of a "Letter of Credit" in the amount of 125% of the estimated value of the landscaping, as determined by a Registered Landscape Architect;

AND THAT Council authorizes the issuance of Development Variance Permit No. DVP16-0298 for Lot A Section 23 Township 26 ODYD Plan KAP84050, located at 225 Rutland Rd S, Kelowna, BC;

AND THAT variances to the following sections of Zoning Bylaw No. 8000 be granted, as shown on Schedule "A":

Section 14.4.5(f): C4 – Urban Centre Commercial Development Regulations

To vary the required minimum side yard from 4.5 m permitted to 2.0 m proposed.

AND FURTHER THAT this Development Permit & Development Variance Permit is valid for two (2) years from the date of Council approval, with no opportunity to extend.

2. PERFORMANCE SECURITY

As a condition of the issuance of this Permit, Council is holding the security set out below to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Permit Holder and be paid to the Permit Holder if the security is returned. The condition of the posting of the security is that should the Permit Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the Municipality may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Permit Holder, or should the Permit Holder carry out the development permitted by this Permit within the time set out above, the security shall be returned to the Permit Holder. There is filed accordingly:

- a) Cash in the amount of \$_____ OR
- b) A Certified Cheque in the amount of \$_____ OR
- c) An Irrevocable Letter of Credit in the amount of \$_____ .

Before any bond or security required under this Permit is reduced or released, the Developer will provide the City with a statutory declaration certifying that all labour, material, workers' compensation and other taxes and costs have been paid.

3. DEVELOPMENT

The land described herein shall be developed strictly in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit that shall form a part hereof.

If the Permit Holder does not commence the development permitted by this Permit within two years of the date of this Permit, this Permit shall lapse.

This Permit IS NOT a Building Permit.

4. APPLICANT'S AGREEMENT

I hereby declare that all of the above statements and the information contained in the material submitted in support of this Permit are to the best of my belief, true and correct in all respects. Upon issuance of the Permit for me by the Municipality, then in such case, I covenant and agree to save harmless and effectually indemnify the Municipality against:

- a) All actions and proceedings, costs, damages, expenses, claims, and demands whatsoever and by whomsoever brought, by reason of the Municipality granting to me the said Permit.

- b) All costs, expenses, claims that may be incurred by the Municipality if the construction by me of engineering or other types of works as called for by the Permit results in damages to any property owned in whole or in part by the Municipality or which the Municipality by duty or custom is obliged, directly or indirectly in any way or to any degree, to construct, repair, or maintain.

I further covenant and agree that should I be granted a Development Permit and/or Development Variance Permit, the Municipality may withhold the granting of any Occupancy Permit for the occupancy and / or use of any building or part thereof constructed upon the hereinbefore referred to land until all of the engineering works or other works called for by the Permit have been completed to the satisfaction of the Municipal Engineer and Divisional Director of Community Planning & Real Estate.

Should there be any change in ownership or legal description of the property, I undertake to notify the Community Planning Department immediately to avoid any unnecessary delay in processing the application.

5. APPROVALS

Issued and approved by Council on the _____ day of _____, 2017.

 Ryan Smith, Community Planning Department Manager
 Community Planning & Real Estate

 Date

**The PERMIT HOLDER is the CURRENT LAND OWNER.
 Security shall be returned to the PERMIT HOLDER.**

CITY OF KELOWNA

MEMORANDUM

Date: January 31, 2017

File No.: DP16-0297

To: Urban Planning Management (LK)

From: Development Engineering Manager (SM)

Subject: 225 Rutland Road – Lot A, PLAN 84050

The Development Engineering Services comments and requirements regarding this Development Permit application for the construction of a 4 storey mixed use building with ground level commercial and 3 storeys of student housing residences mixed use development are as follows:

1. Subdivision

Provide easements as may be required.

2. Geotechnical Study.

A comprehensive Geotechnical Study is required, which is to be prepared by a Professional Engineer competent in the field of geotechnical engineering, the study is to address the following:

- Overall site suitability for development.
- Presence of ground water and/or springs.
- Presence of fill areas.
- Presence of swelling clays.
- Presence of sulphates.
- Potential site erosion.
- Provide specific requirements for footings and foundation construction.
- Provide specific construction design sections for roads and utilities over and above the City's current construction standards

3. Domestic water and fire protection.

- a) This development is within the service area of the Rutland Waterworks District (RWD). The developer is required to make satisfactory arrangements with the RWD

b) Robson Road

The applicant is responsible to upgrade Robson Road to a paved urban collector standard (SS-R5). The construction consists of curb, gutter and sidewalk, fillet paving, storm drainage works, removal and/or relocation of utilities as may be required, etc. Provide an estimate for the cost of this work for bonding purposes.

8. Street lights.

Street lights must be installed on all fronting roads as determined by the Manager of Electrical Utilities. See attached standard for poles and LED lights.

9. Design and Construction.

- a) Design, construction supervision and inspection of all off-site civil works and site servicing must be performed by a Consulting Civil Engineer and all such work is subject to the approval of the City Engineer. Drawings must conform to City standards and requirements.
- b) Engineering drawing submissions are to be in accordance with the City's "Engineering Drawing Submission Requirements" Policy. Please note the number of sets and drawings required for submissions.
- c) Quality Control and Assurance Plans must be provided in accordance with the Subdivision, Development & Servicing Bylaw No. 7900 (refer to Part 5 and Schedule 3).
- d) A "Consulting Engineering Confirmation Letter" (City document 'C') must be completed prior to submission of any designs.
- e) Before any construction related to the requirements of this subdivision application commences, design drawings prepared by a professional engineer must be submitted to the City's Development Engineering Branch. The design drawings must first be "Issued for Construction" by the City Engineer. On examination of design drawings, it may be determined that rights-of-way are required for current or future needs.

10. Servicing Agreement for Works and Services.

- a) A Servicing Agreement is required for all offsite works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and estimates for the required works. The Servicing Agreement must be in the form as described in Schedule 2 of the bylaw.

- b) Part 3, "Security for Works and Services", of the Bylaw, describes the Bonding and Insurance requirements of the Owner. The liability limit is not to be less than \$5,000,000 and the City is to be named on the insurance policy as an additional insured.

11. Access.

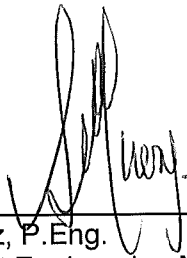
The access to the proposed development meets the City of Kelowna transportation network plan objectives with regard to the distance to the intersection.

12. DCC Credits.

None of the required improvements qualify for DCC credit consideration, as these upgradings are not identified in the current DCC schedules.

13. Bonding and Levies Summary.

- a) Performance Bonding will be secured based on 130% of the construction estimate provided by the applicant's civil engineering consultant.
- b) Administration and Inspection fee (3.5 % of construction costs).



Steve Muenz, P.Eng.
Development Engineering Manager

jo



ROBSON MEWS COMMERCIAL / STUDENT HOUSING DEVELOPMENT



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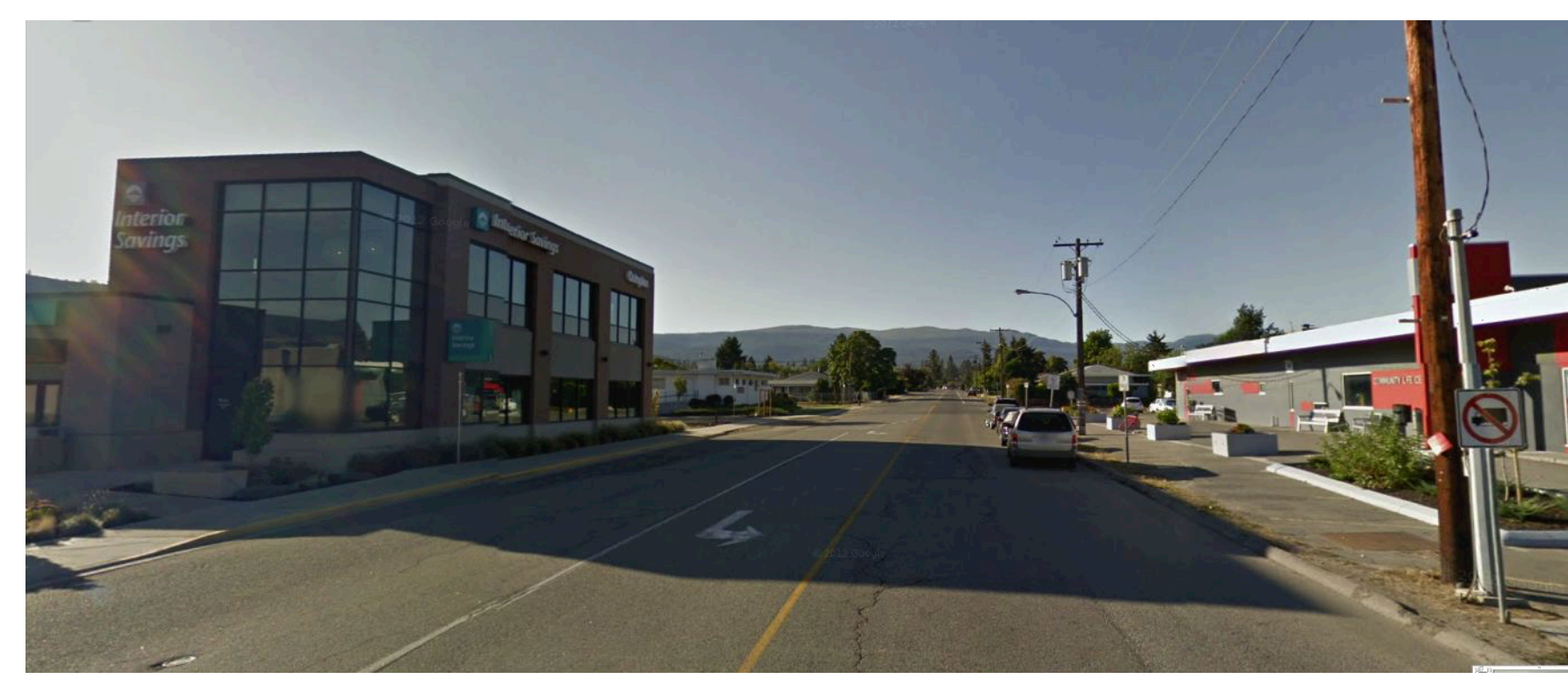
1 SITE LOCATION NOT TO SCALE



2 SITE CONTEXT PLAN 1:500

PROJECT LOCATION

ROBSON RD. E



SITE CONTEXT - VIEW 1



SITE CONTEXT - VIEW 2



SITE CONTEXT - VIEW 3



SITE CONTEXT - VIEW 4

ZONING SUMMARY

ZONING	C4	URBAN CENTRE COMMERCIAL	
MINIMUM LOT WIDTH	MINIMUM 13 m	ACTUAL 51.43 m	
MINIMUM LOT DEPTH	30 m	35.69 m	
MINIMUM LOT AREA	460 sm	1767 sm	
TOTAL GROSS FLOOR AREAS			
MAIN FLOOR		551.64 sm	
STUDENT RESIDENTIAL		2606.75 sm	
TOTAL		3158.37 sm	
BUILDING AREAS FOR F.A.R. CALCULATIONS			
COMMERCIAL		455.21 sm	
STUDENT HOUSING		2075.39 sm	
TOTAL		2530.6 sm	
BUILDING COVERAGE AREA			
BUILDING AREA	11994.80 SF	1114.32 SM	
FLOOR AREA RATIO (FAR)	MAXIMUM 1.300	ACTUAL 1.442	CALCULATED FAR BONUS: (22/31) x .2=1.442
MIXED-USE INCREASE	0.142	1.432	2. BONUS FOR ALL STALLS COVERED
TOTAL	1.442	1.432	
SITE COVERAGE	MAXIMUM 75%	ACTUAL 63.06%	(114.32/1767)
BUILDING AREA/SITE AREA			
SETBACKS	MINIMUM	ACTUAL	
FRONT (RUTLAND)	0 m	0 m	RUTLAND ROAD
REAR YARD	6 m	2 m	*VARIANCE REQUIRED
FLANKING SIDE STREET	0 m	1.3 m	ROBSON ROAD
SIDE	0 m	0 m	ABUTTING COMMERCIAL
BUILDING HEIGHT	MAXIMUM 4 stories/15m	ACTUAL 4 stories/15m Max.	
ADDITIONAL REGULATIONS			
MINIMUM AREAS OF PRIVATE OPEN SPACE			
6 sq m / bachelor dwelling, Cong. Housing bldm or group home bldm			
10 sq m / 1 bdrm dwelling			
15 sq m / dwelling with +1 bdrm			
	REQUIRED	PROVIDED	
21 units @ +1 bedroom =	315 sm	3390.63 SF	
1 unit @ 1 bedroom =	10 sm	107.639 SF	
TOTAL PRIVATE OPEN SPACE	325 sm	3498.27 SF	366.788 sm 3948.067 SF

PROJECT ADDRESS

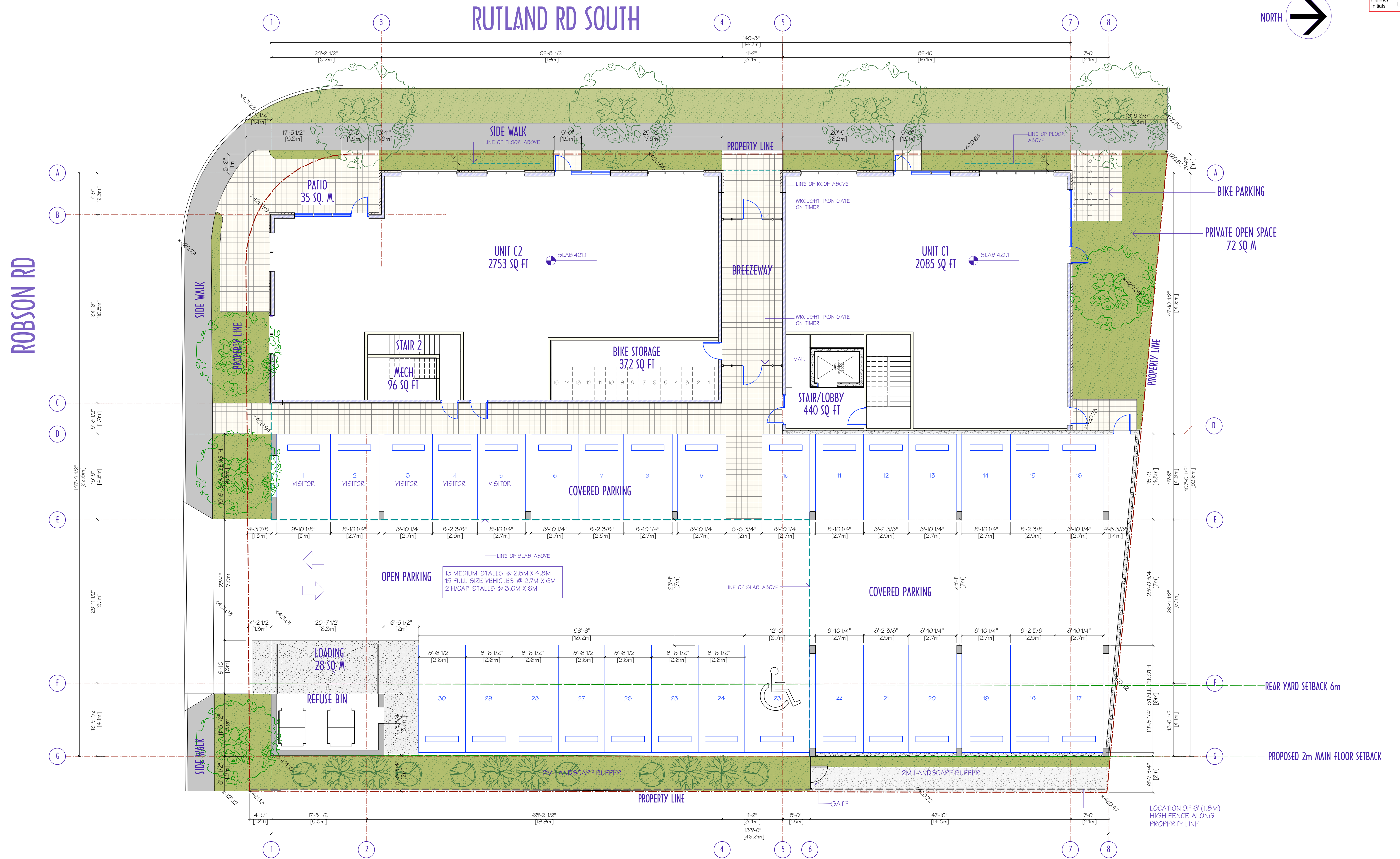
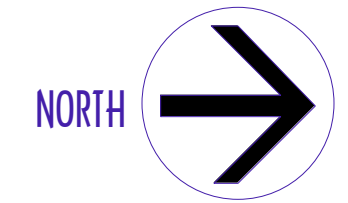
CIVIC ADDRESS: 205 - 225 RUTLAND ROAD SOUTH
 LEGAL DESCRIPTION: LOT 6 AND LOT 7, PLAN 10372, SECTION 22, TWP. 26

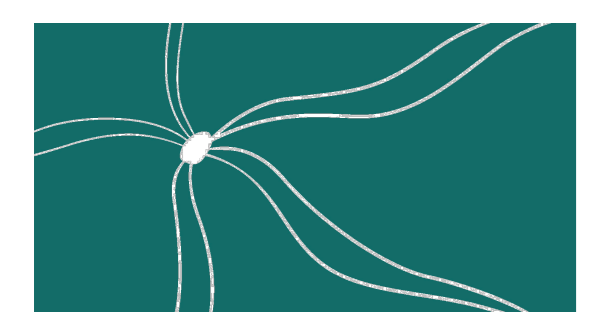
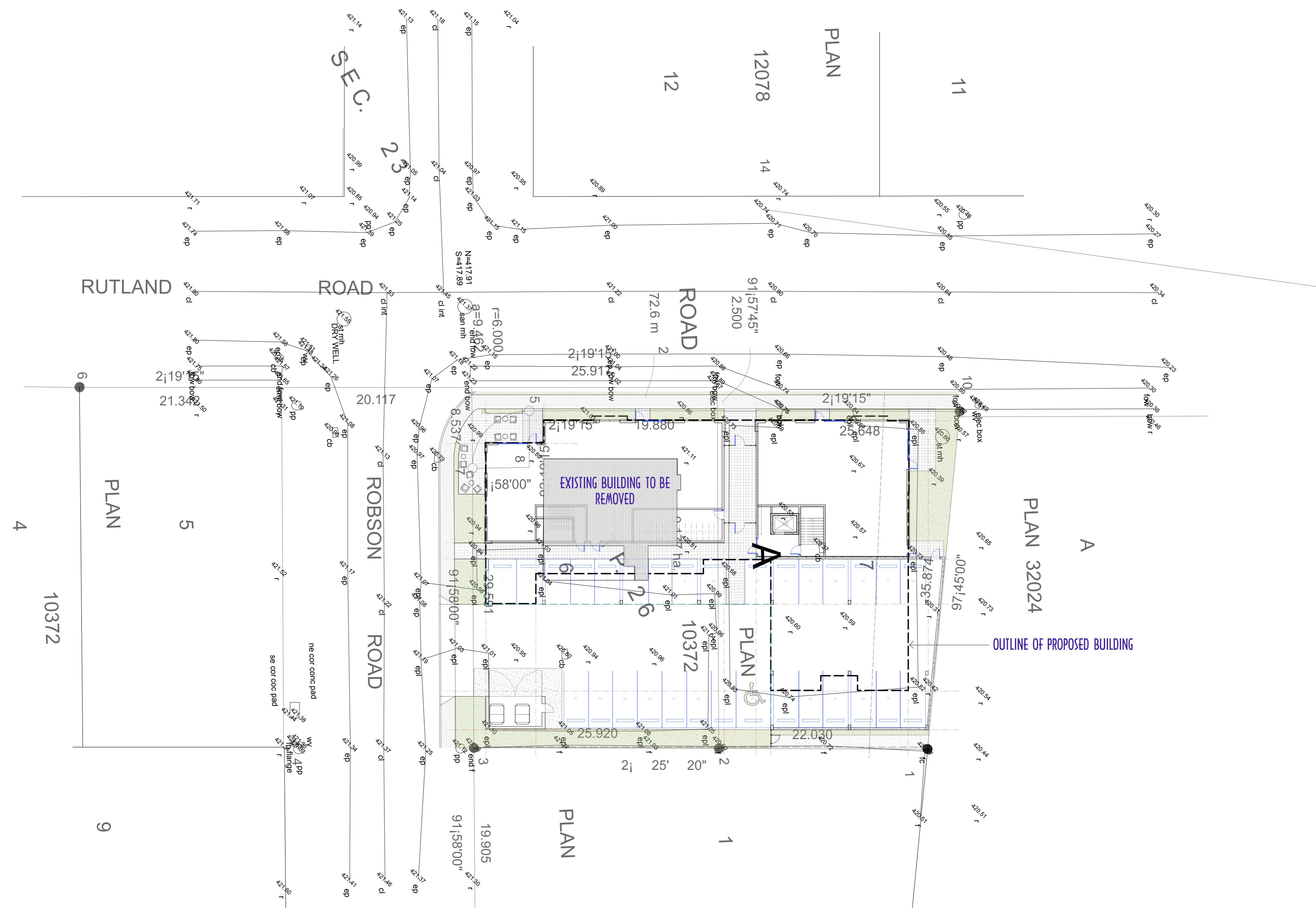
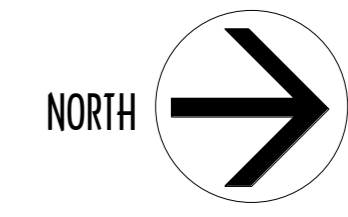
PARKING/LOADING SUMMARY

	GFA		GLA		PARKING CALCULATIONS		STALLS	
	Sq. Ft.	Sq. m	Sq. Ft.	Sq. m			Required	Provided
COMMERCIAL - MAIN FLOOR								
COMMERCIAL BUILDING 1 AREA SUMMARY								
Main Floor	4900	455.21						
TOTAL	4900	455.21			GFA @ 1.75 STALLS per 100 sm =		8.0	9
Loading								
Commercial	4900	455.21			GFA @ 1 STALL per 1900 sm =		0.2	
TOTAL	4900	455.21			TOTAL LOADING		0.2	1
Bikes								
Class 1					GFA @ 0.2 STALLS per 100 sm =		0.9	1
Class 2					GFA @ 0.6 STALLS per 100 sm =		2.7	3
APARTMENT HOUSING								
STUDENT HOUSING AREA SUMMARY- 4 STOREYS								
Main Floor	0	0						
2nd net	STUDENT SUITES	7399.9	687.45	7 SUITES	@ 1 STALL PER SUITE		7.0	
	COMMON/CIRCULATION	1262.4	117.28					
3rd net	STUDENT SUITES	7399.9	687.45	7 SUITES	@ 1 STALL PER SUITE		7.0	
	COMMON/CIRCULATION	1262.4	117.28					
4th	STUDENT SUITES	7540.2	700.48	8 SUITES	@ 1 STALL PER SUITE		8.0	
	COMMON/CIRCULATION	1238.5	120.63					
AREA - GROSS	TOTAL	26163	2430.6				22.0	22
AREA - NET (FOR FAR)		22340	2075.4					
*REQUIRE 1 PER 7 PARKING STALLS TO BE FOR VISITOR PARKING CALCULATION: 50 / 7 = 5 VISITOR STALLS.								
					TOTAL STALLS REQUIRED		30.0	
					TOTAL STALLS PROVIDED			30
Loading			N/A					
Bikes								
Class 1					GFA @ 0.5 Stalls per 100 sm =		13.1	14
Class 2					GFA @ 0.1 Stalls per 100 sm =		2.4	6
TOTAL CLASS 1 BIKE STALLS REQUIRED 13.1 14								
TOTAL CLASS 2 BIKE STALLS REQUIRED 2.4 6								

UNIT AND COMMON AREA SUMMARY

MAIN FLOOR			
UNIT C1	214 SF	196.4 sm	
UNIT C2	2786 SF	258.8 sm	
UNIT AREA TOTAL	4900 SF	455.2 sm	
COMMON	1038 SF	96.4 sm	
SUBTOTAL GROSS AREA	5938 SF	551.6 sm	(INCL. HOUSING STAIRS, BIKES STOR & LOBBY SPACE)
PRIVATE OPEN SPACE	775 SF	72.0 sm	AT GRADE
2ND FLOOR			
201	1027.4 SF	95.4 sm	
202	1027.4 SF	95.4 sm	
203	1112 SF	103.3 sm	
204	1034.4 SF	96.1 sm	
205	1035.5 SF	96.2 sm	
206	1053.6 SF	97.9 sm	
207	1039.6 SF	103.1 sm	
UNIT AREA SUBTOTAL	7399.9 SF	687.5 sm	
COMMON IN	1262.4 SF	117.3 sm	
PRIVATE OPEN SPACE	810	84.5 sm	
PRIVATE DECKS	367	34.1 sm	
COMMON DECKS	689.2	64.0 sm	
INTERIOR			
SUBTOTAL P.O.S.	1966.2	182.7 sm	
SUBTOTAL GROSS AREA	9351.5 SF	868.8 sm	(NOT INCL. OUTDOOR P.O.S.)
3RD FLOOR			
301	1027.4 SF	95.4 sm	
302	1027.4 SF	95.4 sm	
303	1112 SF	103.3 sm	
304	1034.4 SF	96.1 sm	
305	1035.5 SF	96.2 sm	
306	1053.6 SF	97.9 sm	
307	1039.6 SF	103.1 sm	
UNIT AREA SUBTOTAL	7399.9 SF	687.5 sm	
COMMON	1262.4 SF	117.3 sm	
PRIVATE OPEN SPACE			
INTERIOR	689.2 SF	64.0 sm	
SUBTOTAL GROSS AREA	9351.5 SF	868.8 sm	
4TH FLOOR			
401	1027.4 SF	95.4 sm	
402	1027.4 SF	95.4 sm	
403	558.3 SF	51.9 sm	
404	688.4 SF	64.0 sm	
405	1034.4 SF	96.1 sm	
406	1035.5 SF	96.2 sm	
407	1053.6 SF	97.9 sm	
408	1115.2 SF	103.6 sm	
UNIT AREA SUBTOTAL	7540.2 SF	700.5 sm	
COMMON	1298.5 SF	120.6 sm	
PRIVATE OPEN SPACE			
INTERIOR	517.8 SF	48.1 sm	
SUBTOTAL GROSS AREA	9356.5 SF	869.2 sm	
TOTAL NET HOUSING AREA	22340 SF	2075.4 sm	UNIT AREA
TOTAL NET COMMERCIAL	4900	455.2 sm	GROSS LEASEABLE
TOTAL NET BUILDING AREA	27240	2530.6 sm	
TOTAL BUILDING GROSS AREA	33997.5 SF	3158.4 sm	GROSS FLOOR AREA (NOT INCL. EXTERIOR SPACE)



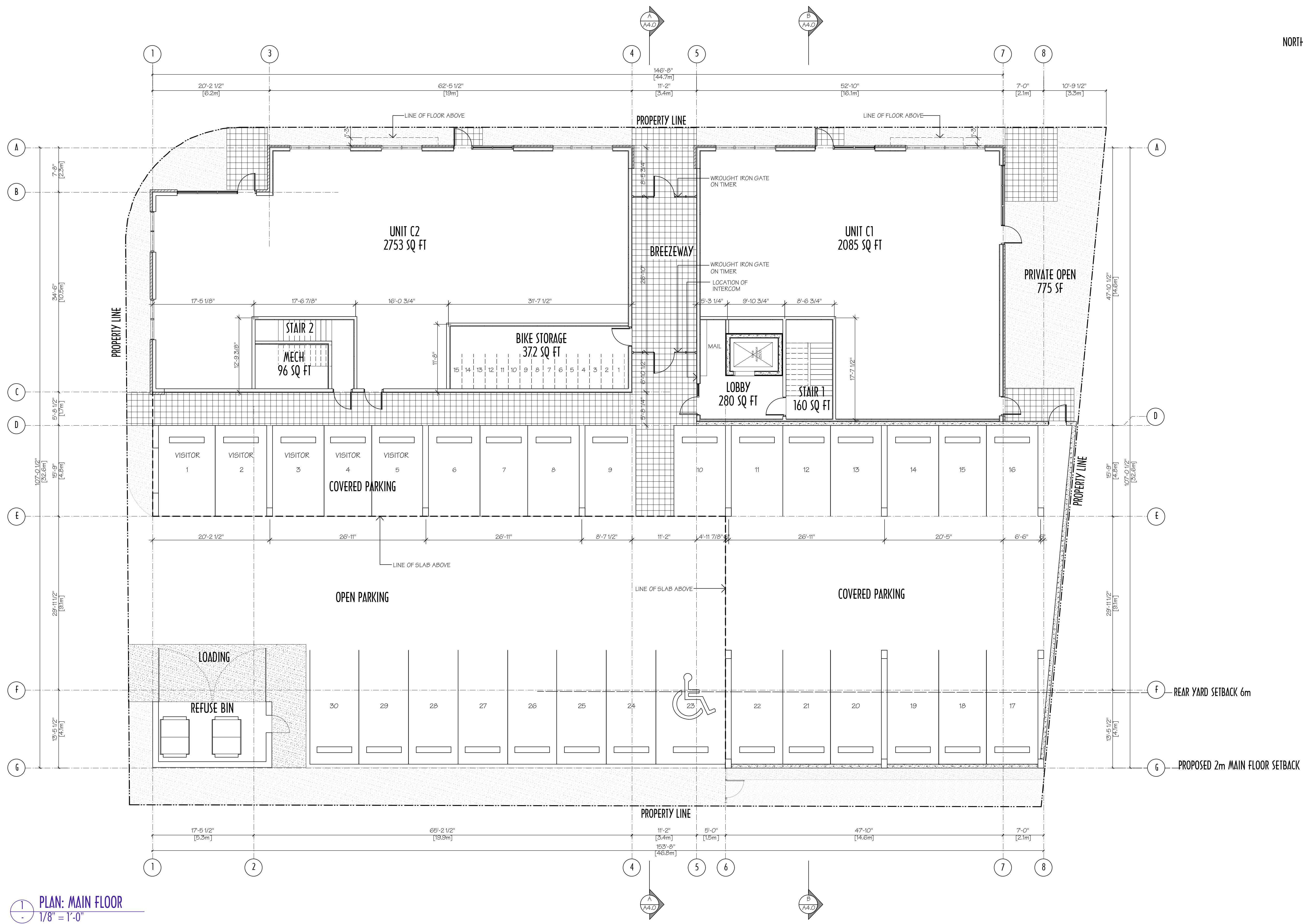
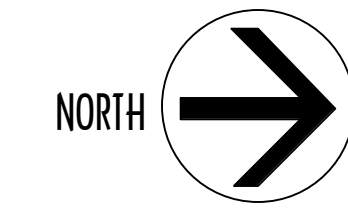


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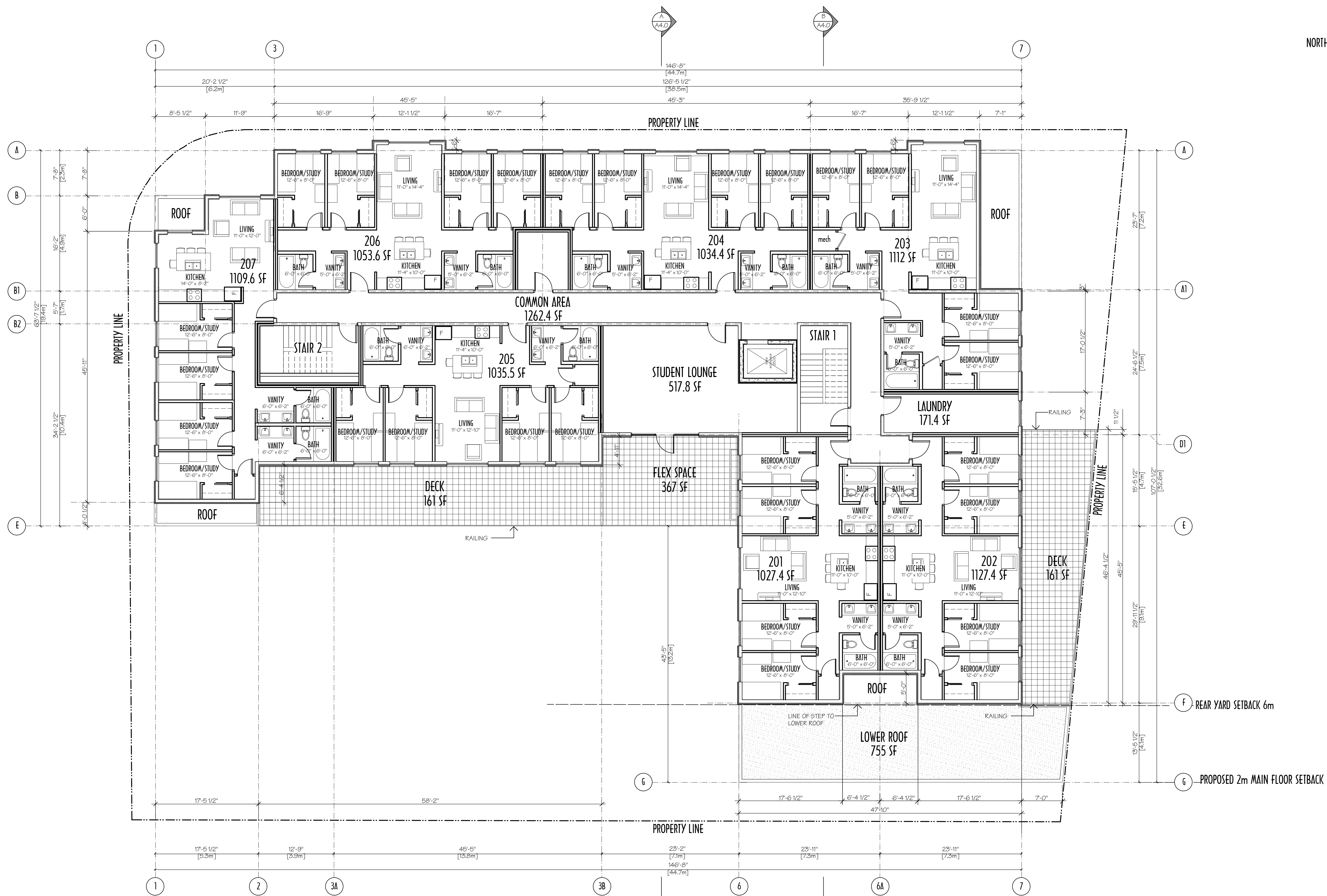
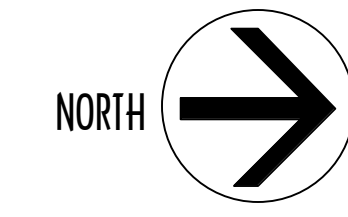
**ROBSON MEWS
 COMMERCIAL/STUDENT HOUSING**

SURVEY PLAN

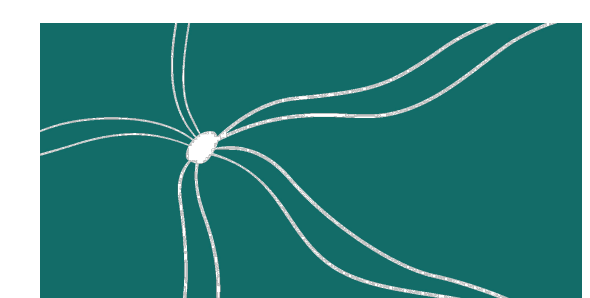
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1 PLAN: MAIN FLOOR
 1/8" = 1'-0"



PLAN: SECOND FLOOR
 1/8" = 1'-0"

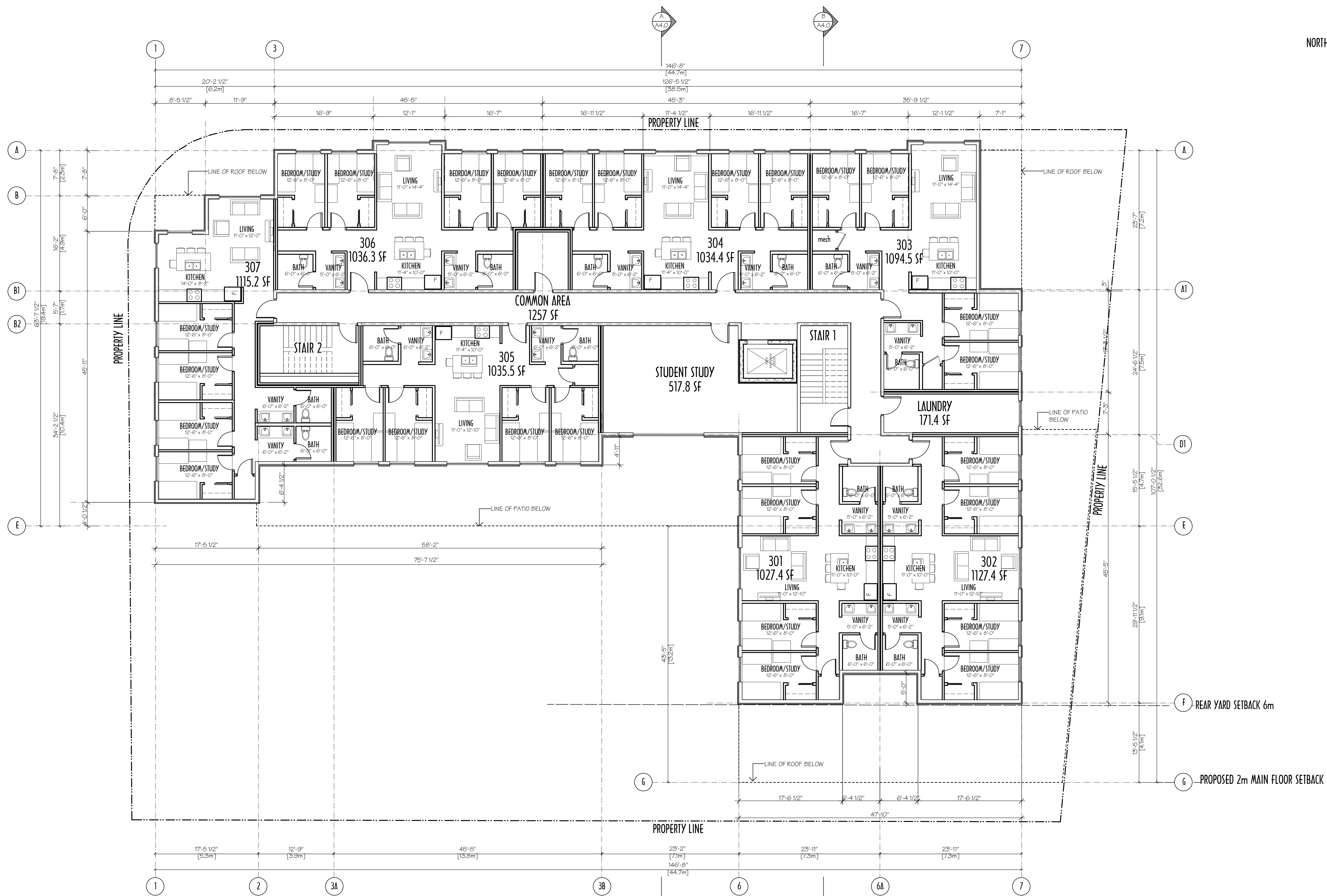
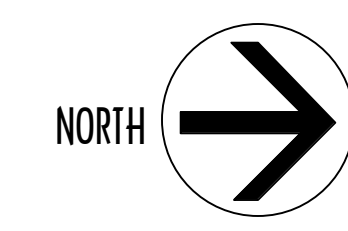


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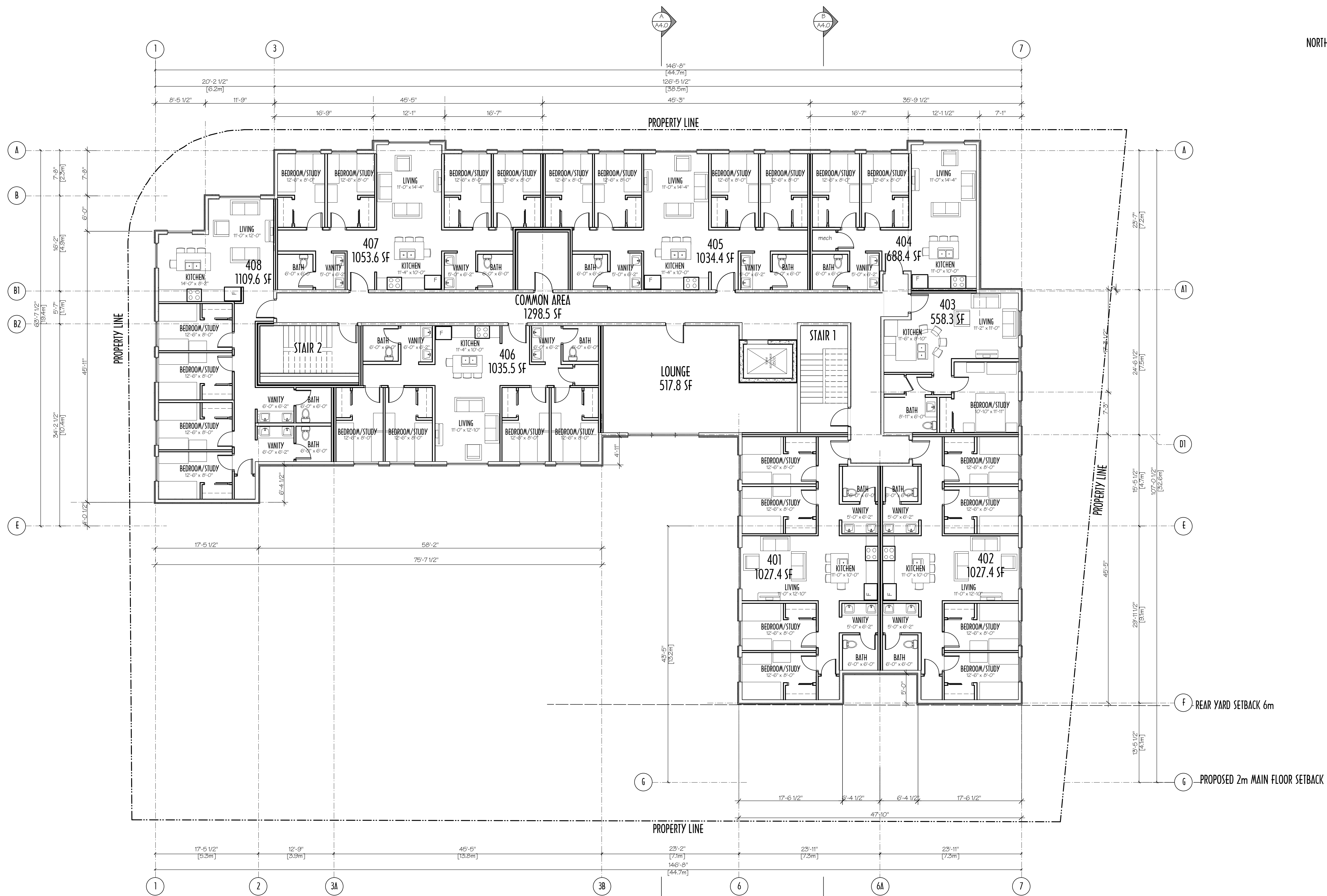
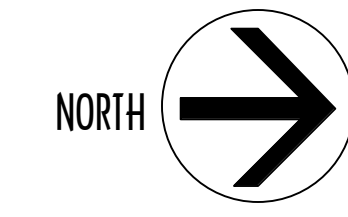
**ROBSON MEWS
 COMMERCIAL/STUDENT HOUSING**

FLOOR PLAN: LEVEL 2

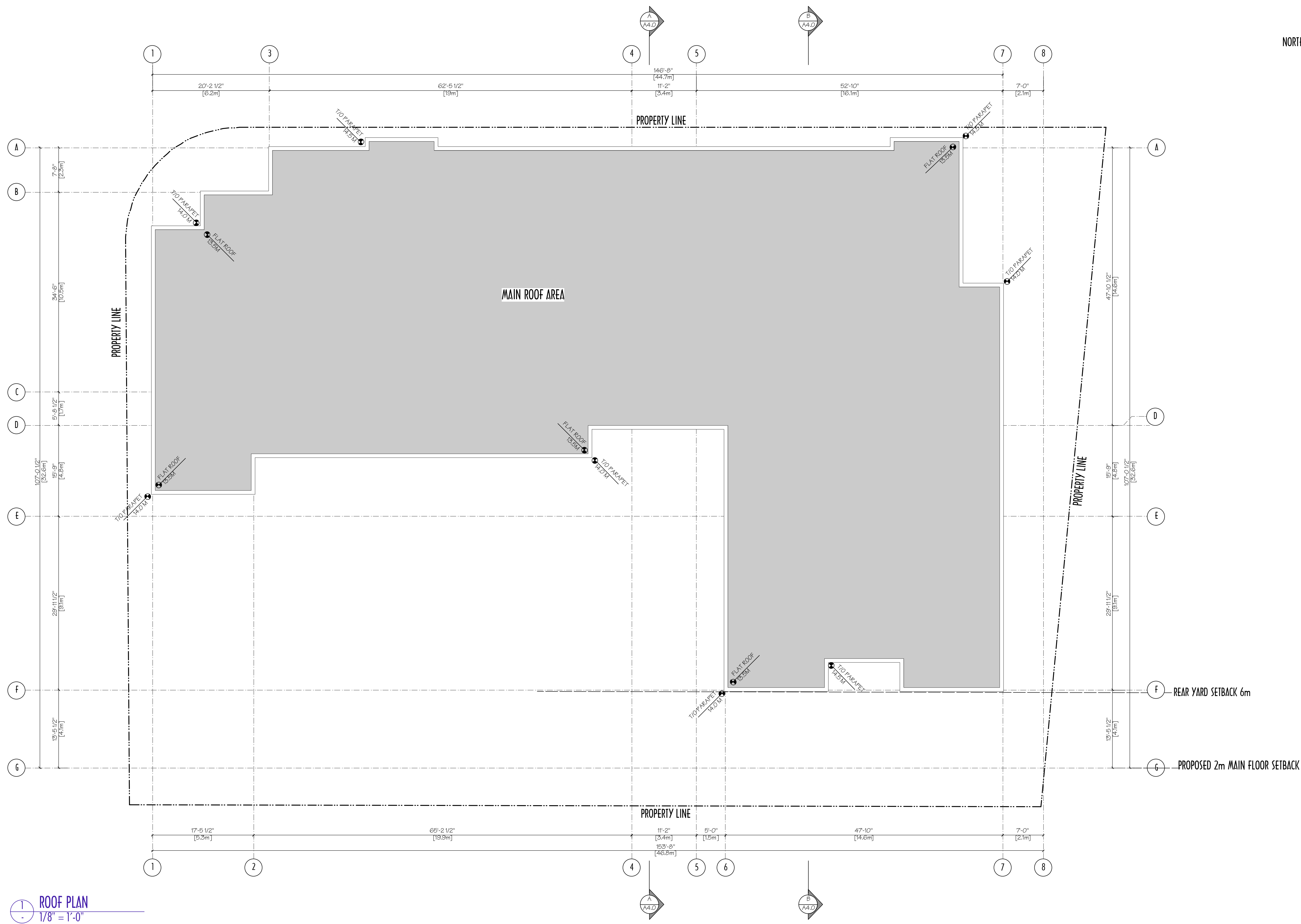
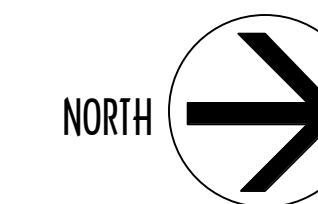
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PLAN: THIRD FLOOR
 1/8" = 1'-0"



PLAN: FOURTH FLOOR
 1/8" = 1'-0"



1 ROOF PLAN
 1/8" = 1'-0"



1 WEST ELEVATION
 1/8" = 1'-0"

EXTERIOR FINISH LEGEND

1 STUCCO FINISH MAIN COLOUR Col: Shaker Beige HC-45 Benjamin Moore Paints	8 COMMERCIAL STORE FRONT GLAZING Aluminum Col: Black
2 STUCCO FINISH ACCENT COLOUR Col: Tyler Taupe HC-43 Benjamin Moore Paints	9 ALUMINUM RAILING & GUARD Pre-finished Col: Black
3 STUCCO FINISH ACCENT COLOUR Col: 2127-10 Twilight Zone Benjamin Moore Paints	10 WINDOWS Metal Clad Vinyl. Col: Black
4 BRICK Interstate Brick Col: Old Baltimore	11 PRE-FINISHED METAL FLASHING Col: Black
5 PAINTED CONCRETE Col: Tyler Taupe HC-43 Benjamin Moore Paints	12 PAINTED STEEL DOORS Col: 2127-10 Twilight Zone Benjamin Moore Paints
6 FAUX CONCRETE ENTRY HEARTH Col: Light Grey	13 METAL VENTING & A/C UNITS Col: Black
7 AWNING FABRIC Col: Black Sunbrella Fabric	14 LIGHT FIXTURE Wall Mount. Col: Black



2 SOUTH ELEVATION
 1/8" = 1'-0"



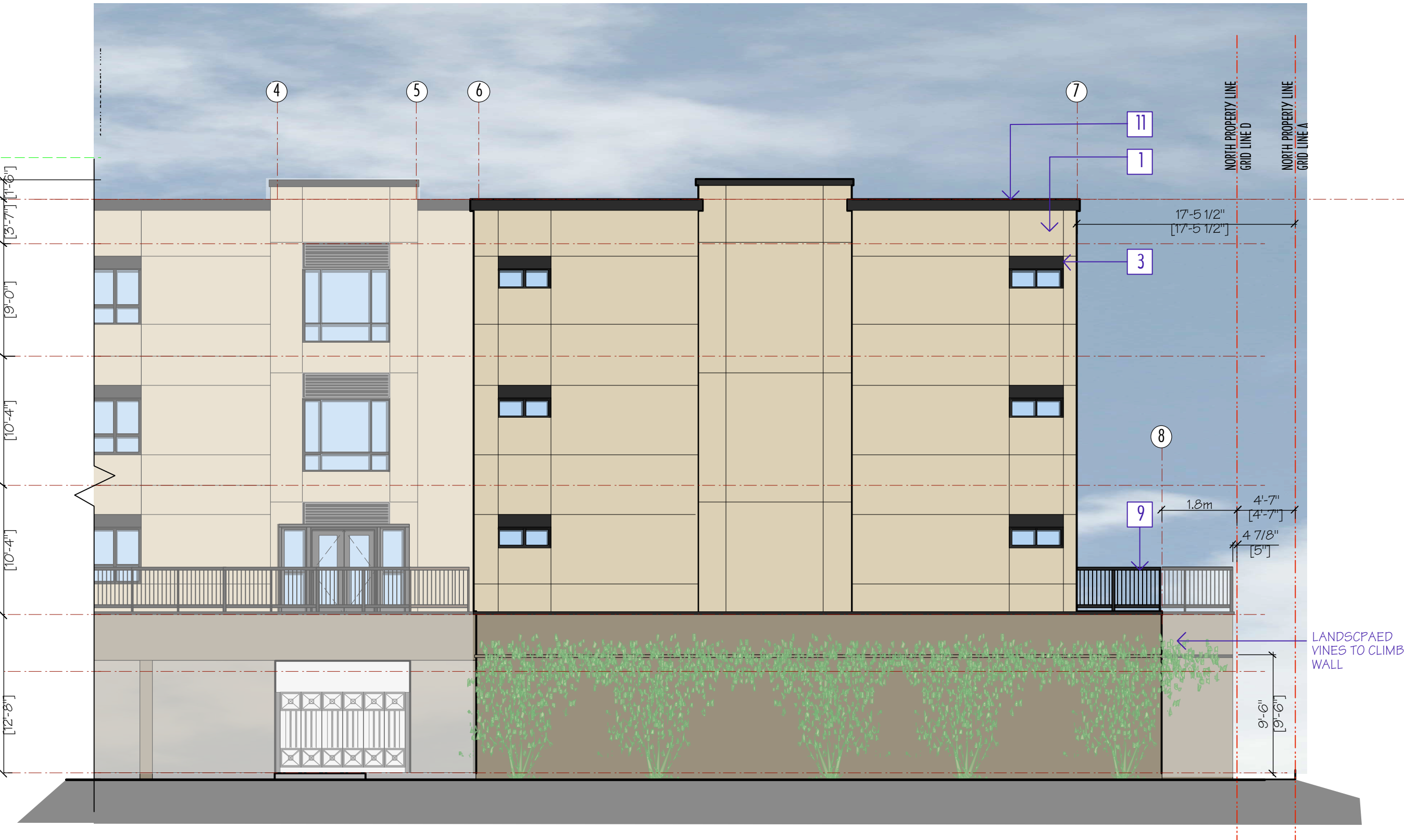
2A SOUTH ELEVATION
 1/8" = 1'-0"



EXTERIOR FINISH LEGEND

1 STUCCO FINISH MAIN COLOUR Col: Shaker Beige HC-45 Benjamin Moore Paints	8 COMMERCIAL STORE FRONT GLAZING Aluminum Col: Black
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3 EAST ELEVATION
 1/8" = 1'-0"



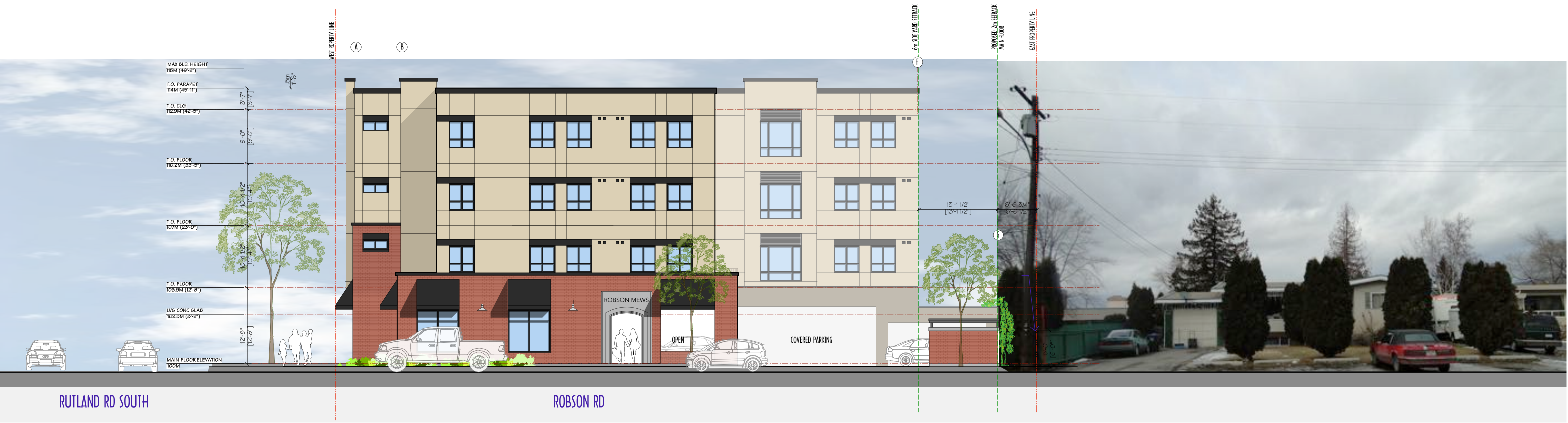
3A EAST ELEVATION
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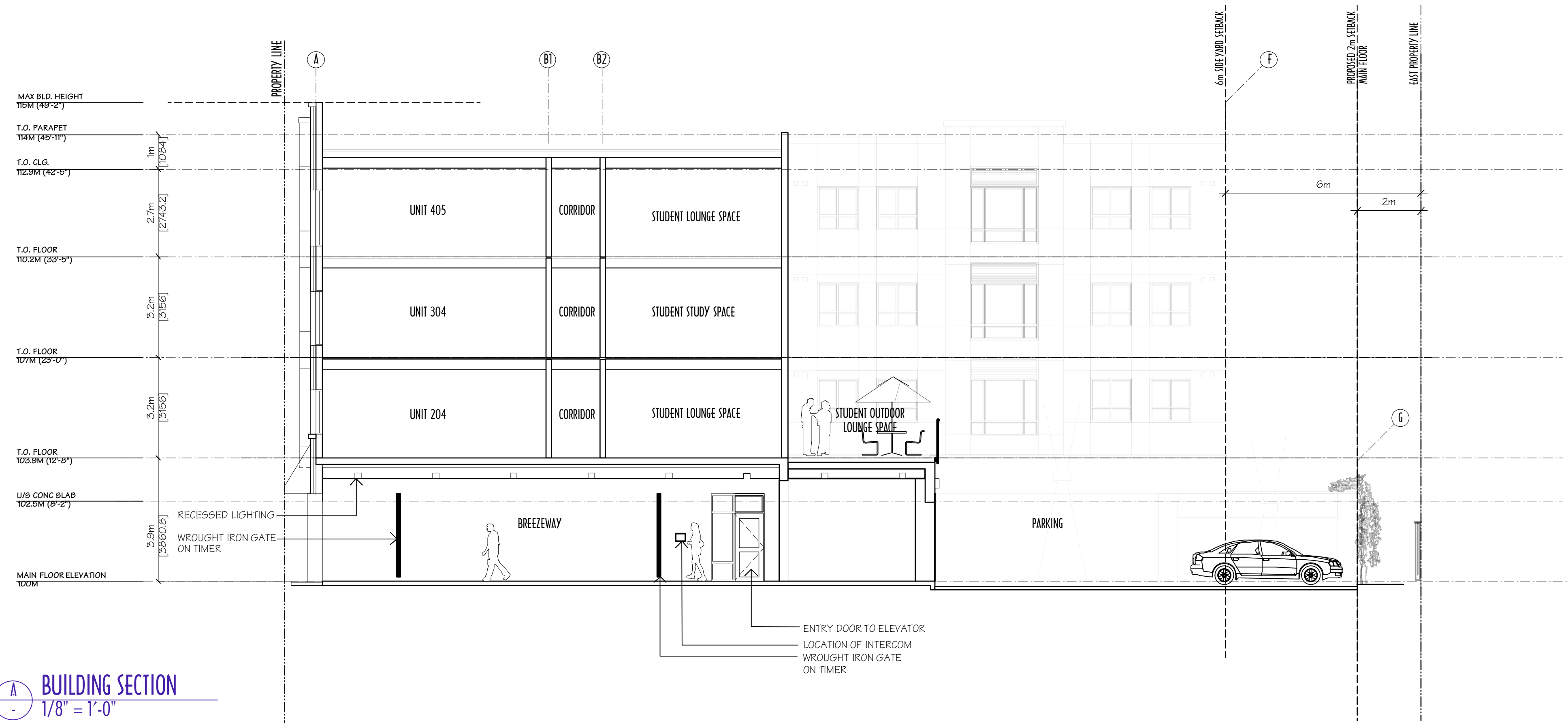
4 NORTH ELEVATION
 1/8" = 1'-0"



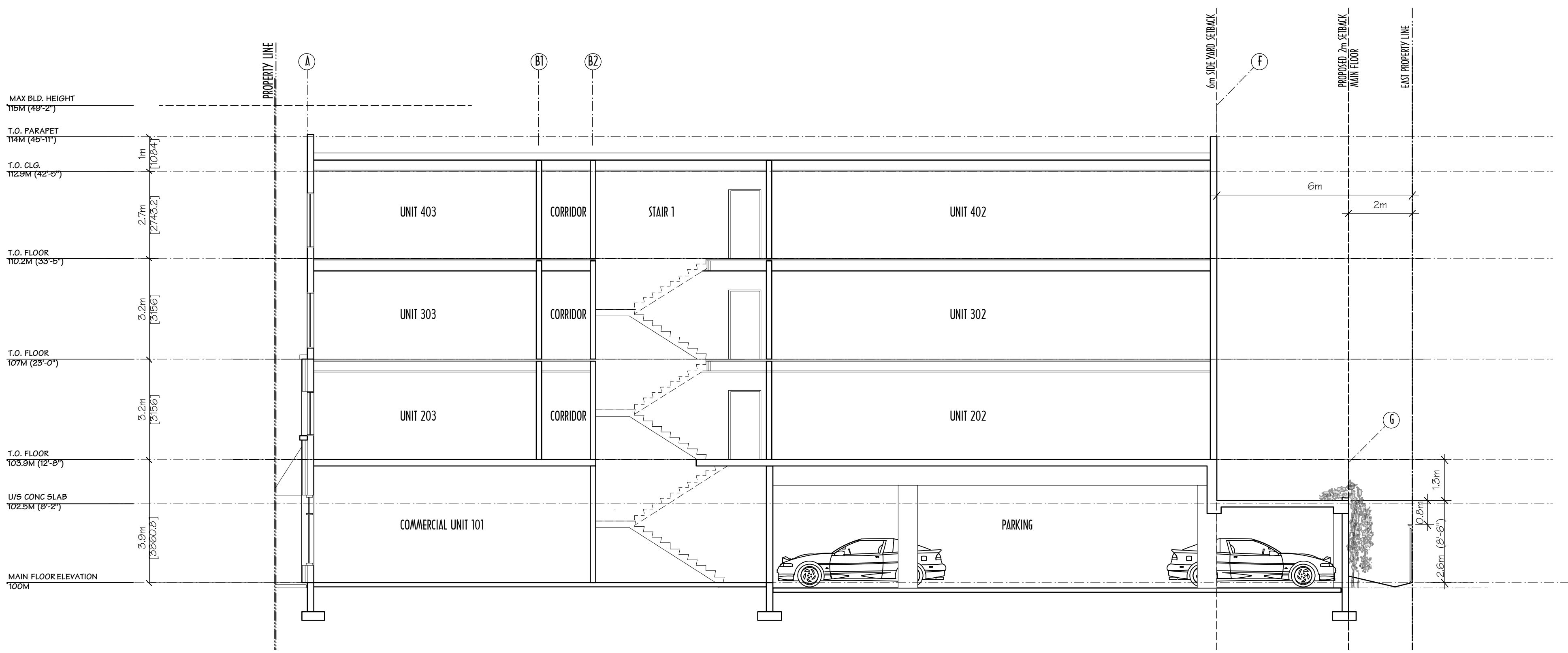
1 RUTLAND STREET ELEVATION
 1/8" = 1'-0"



2 ROBSON STREET ELEVATION
 1/8" = 1'-0"



A
BUILDING SECTION
1/8" = 1'-0"



B
BUILDING SECTION
1/8" = 1'-0"

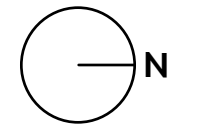


OUTLAND DESIGN LANDSCAPE ARCHITECTURE

206 - 1889 Spall Road
Kelowna, BC V1Y 4R2
T (250) 868-9270
www.outlanddesign.ca

SCHEDULE C
This forms part of application
DP16-0297 & DVP16-0298

Planner Initials LK



PROJECT TITLE

225 Rutland Road

Kelowna, BC

DRAWING TITLE

CONCEPTUAL LANDSCAPE PLAN

ISSUED FOR / REVISION

1	14.11.29	Development Permit
2		
3		
4		
5		

PROJECT NO 13-042

DESIGN BY KG

DRAWN BY SR

CHECKED BY FB

DATE NOV. 29, 2016

SCALE 1:125

SEAL



DRAWING NUMBER

L1/2

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PLANT LIST

BOTANICAL NAME	COMMON NAME	QTY	SIZE / SPACING & REMARKS
TREES			
ACER NEGUNDO 'SENSATION'	SENSATION BOXELDER	4	6cm CAL.
CELTIS OCCIDENTALIS	HACKBERRY	3	6cm CAL.
POPULUS TREMULA 'ERECTA'	SWEDISH COLUMNAR ASPEN	5	6cm CAL.
SHRUBS, PERENNIALS & GROUNDCOVERS			
ACHILLEA MILLEFOLIUM	YARROW	52	#01 CONT. /0.5m O.C. SPACING
BUDDLEIA X 'BLUE CHIP'	LO & BEHOLD BUTTERFLY BUSH	13	#01 CONT. /1.0m O.C. SPACING
CORNUS STOLONIFERA 'FARROW'	ARCTIC FIRE DOGWOOD	58	#01 CONT. /1.0m O.C. SPACING
DESCHAMPSIA CAESPITOSA	TUFTED HAIR GRASS	52	#01 CONT. /0.5m O.C. SPACING
HEDERA HELIX	ENGLISH IVY	9	#01 CONT. /1.8m O.C. SPACING
NEPETA X 'FAASSENII' 'WALKER'S LOW'	WALKER'S LOW CATMINT	72	#01 CONT. /0.5m O.C. SPACING
RUDBECKIA FULGIDA 'GOLDSTURM'	GOLDSTURM CONEFLOWER	52	#01 CONT. /0.5m O.C. SPACING
SPIRAEA 'SNOWHITE'	SNOWWHITE SPIREA	18	#01 CONT. /1.0m O.C. SPACING

NOTES

1. PLANT MATERIAL AND CONSTRUCTION METHODS SHALL MEET OR EXCEED B.C.L.N.A. STANDARDS.
2. ALL SOFT LANDSCAPE AREAS SHALL BE WATERED BY A FULLY AUTOMATIC TIMED UNDERGROUND IRRIGATION SYSTEM.
3. TREE AND SHRUB BEDS TO BE DRESSED IN A MINIMUM 75mm WOOD MULCH. DO NOT PLACE WEED MAT UNDERNEATH TREE AND SHRUB BEDS.
4. TREE AND SHRUB BEDS TO RECEIVE A MINIMUM 300mm DEPTH TOPSOIL PLACEMENT.
5. TURF AREAS FROM SOD SHALL BE NO. 1 GRADE GROWN FROM CERTIFIED SEED OF IMPROVED CULTIVARS REGISTERED FOR SALE IN B.C. AND SHALL BE TOLERANT OF DROUGHT CONDITIONS. A MINIMUM OF 100mm DEPTH OF GROWING MEDIUM IS REQUIRED BENEATH TURF AREAS. TURF AREAS SHALL MEET EXISTING GRADES AND HARD SURFACES FLUSH.

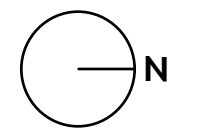


OUTLAND DESIGN LANDSCAPE ARCHITECTURE

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SCHEDULE C
This forms part of application
DP16-0297 & DVP16-0298

Planner Initials LK



PROJECT TITLE

225 Rutland Road

Kelowna, BC

DRAWING TITLE

WATER CONSERVATION AND IRRIGATION PLAN

ISSUED FOR / REVISION

1	16.11.29	Development Permit
2		
3		
4		
5		

PROJECT NO 13042

DESIGN BY SP

DRAWN BY KG

CHECKED BY FB

DATE NOV. 29, 2016

SCALE 1:125

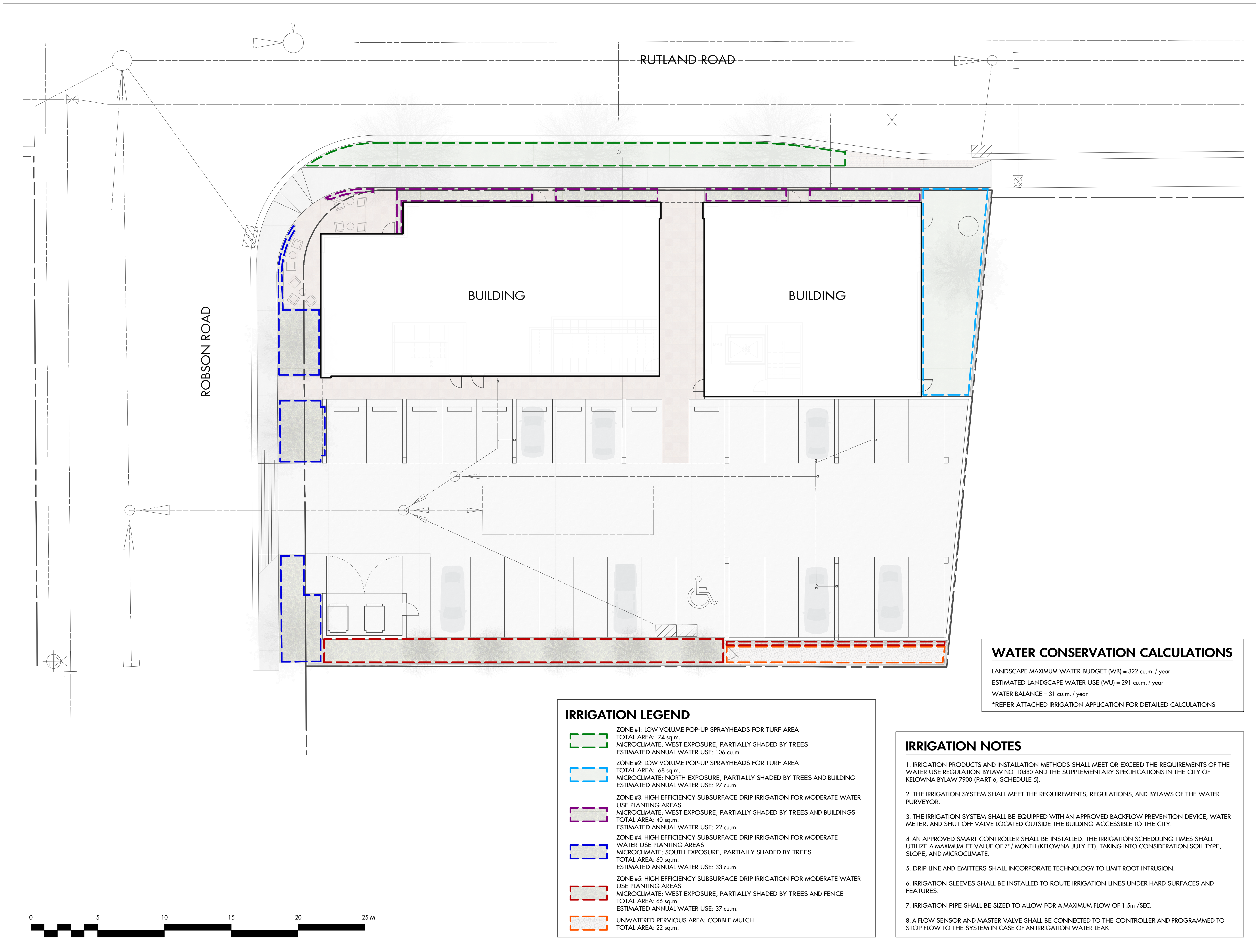
SEAL



DRAWING NUMBER

L2/2

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IRRIGATION LEGEND

- ZONE #1: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREA
TOTAL AREA: 74 sq.m.
MICROCLIMATE: WEST EXPOSURE, PARTIALLY SHADED BY TREES
ESTIMATED ANNUAL WATER USE: 106 cu.m.
- ZONE #2: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREA
TOTAL AREA: 68 sq.m.
MICROCLIMATE: NORTH EXPOSURE, PARTIALLY SHADED BY TREES AND BUILDING
ESTIMATED ANNUAL WATER USE: 97 cu.m.
- ZONE #3: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS
MICROCLIMATE: WEST EXPOSURE, PARTIALLY SHADED BY TREES AND BUILDINGS
TOTAL AREA: 40 sq.m.
ESTIMATED ANNUAL WATER USE: 22 cu.m.
- ZONE #4: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS
MICROCLIMATE: SOUTH EXPOSURE, PARTIALLY SHADED BY TREES
TOTAL AREA: 60 sq.m.
ESTIMATED ANNUAL WATER USE: 33 cu.m.
- ZONE #5: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS
MICROCLIMATE: WEST EXPOSURE, PARTIALLY SHADED BY TREES AND FENCE
TOTAL AREA: 66 sq.m.
ESTIMATED ANNUAL WATER USE: 37 cu.m.
- UNWATERED PERVIOUS AREA: COBBLE MULCH
TOTAL AREA: 22 sq.m.

WATER CONSERVATION CALCULATIONS

LANDSCAPE MAXIMUM WATER BUDGET (WB) = 322 cu.m. / year

ESTIMATED LANDSCAPE WATER USE (WU) = 291 cu.m. / year

WATER BALANCE = 31 cu.m. / year

*REFER ATTACHED IRRIGATION APPLICATION FOR DETAILED CALCULATIONS

IRRIGATION NOTES

1. IRRIGATION PRODUCTS AND INSTALLATION METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF THE WATER USE REGULATION BYLAW NO. 10480 AND THE SUPPLEMENTARY SPECIFICATIONS IN THE CITY OF KELOWNA BYLAW 7900 (PART 6, SCHEDULE 5).
2. THE IRRIGATION SYSTEM SHALL MEET THE REQUIREMENTS, REGULATIONS, AND BYLAWS OF THE WATER PURVEYOR.
3. THE IRRIGATION SYSTEM SHALL BE EQUIPPED WITH AN APPROVED BACKFLOW PREVENTION DEVICE, WATER METER, AND SHUT OFF VALVE LOCATED OUTSIDE THE BUILDING ACCESSIBLE TO THE CITY.
4. AN APPROVED SMART CONTROLLER SHALL BE INSTALLED. THE IRRIGATION SCHEDULING TIMES SHALL UTILIZE A MAXIMUM ET VALUE OF 7" / MONTH (KELOWNA JULY ET), TAKING INTO CONSIDERATION SOIL TYPE, SLOPE, AND MICROCLIMATE.
5. DRIP LINE AND EMITTERS SHALL INCORPORATE TECHNOLOGY TO LIMIT ROOT INTRUSION.
6. IRRIGATION SLEEVES SHALL BE INSTALLED TO ROUTE IRRIGATION LINES UNDER HARD SURFACES AND FEATURES.
7. IRRIGATION PIPE SHALL BE SIZED TO ALLOW FOR A MAXIMUM FLOW OF 1.5m / SEC.
8. A FLOW SENSOR AND MASTER VALVE SHALL BE CONNECTED TO THE CONTROLLER AND PROGRAMMED TO STOP FLOW TO THE SYSTEM IN CASE OF AN IRRIGATION WATER LEAK.