
CITY OF KELOWNA
MEMORANDUM

Date: January 25, 2016
File No.: Z15-0065
To: Community Planning (TY)
From: Development Engineering Manager
Subject: 990 Guisachan Rd

RU1 to RM3

Development Engineering Department have the following comments and requirements associated with this application. The road and utility upgrading requirements outlined in this report will be a requirement of this development.

The Development Engineering Technologist for this project is Sergio Sartori

1. Domestic Water and Fire Protection

- (a) The existing lot is serviced with 19mm diameter water service. The developer's consulting mechanical engineer will determine the domestic and fire protection requirements of this proposed development and establish hydrant requirements and service needs. The estimated cost of this construction for bonding purposes is **\$10,000.00**
- (b) The developer must obtain the necessary permits and have all existing utility services disconnected prior to removing or demolishing the existing structures. The City of Kelowna water meter contractor must salvage existing water meters, prior to building demolition. If water meters are not salvaged, the developer will be invoiced for the meters.

2. Sanitary Sewer

- (a) The existing lot is serviced with a 100mm diameter sanitary service. The developer's consulting mechanical engineer will determine the requirements of this proposed development and establish the required size and preferred location of the new services. The estimated cost of this construction for bonding purposes is **\$10,000.00**

3. Storm Drainage

- (a) The developer must engage a consulting civil engineer to provide a storm water management plan for these sites which meets the requirements of the City Subdivision Development and Servicing Bylaw 7900. The storm water management plan must also include provision of lot grading plans, minimum basement elevations (MBE), if applicable, and provision of a storm drainage service and recommendations for onsite drainage containment and disposal systems.
- (b) The subject development must include the design of a piped drainage system for Guisachan Rd fronting the subject lots and the lane, including road improvement construction. The cost of the work is included in the road design calculations.

4. Road Improvements

- (a) Guisachan Rd must be upgraded to an urban standard along the full frontage of this proposed development and the lane frontage, including curb and gutter, sidewalk replacement, landscaped boulevard complete with street trees drainage system including storm main, catch basins, manholes and pavement removal and replacement, street lighting and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction. The estimated cost of this construction for bonding purposes is **\$31,500.00**.
- (b) Provide a Signs, Pavement Markings and Traffic Control Devices Drawing for Guisachan Rd.

5. Road Dedication and Subdivision

- (a) Grant Statutory Rights Of Way if required for utility services.
- (b) Lot Consolidation is required.
- (c) Dedicate ~3.1m width along the full frontage of Guisachan Rd to achieve a 25.0m road right of way.
- (d) If any road dedication or closure affects lands encumbered by a Utility right-of-way (such as Hydro, Telus, Gas, etc.) please obtain the approval of the utility. Any works required by the utility as a consequence of the road dedication or closure must be incorporated in the construction drawings submitted to the City's Development Manager.

6. Electric Power and Telecommunication Services

- a) All proposed distribution and service connections are to be installed underground. Existing distribution and service connections, on that portion of a road immediately adjacent to the site, are to be relocated and installed underground.
- b) Streetlights must be installed on Guisachan Rd if needed.
- c) Make servicing applications to the respective Power and Telecommunication utility companies. The utility companies are required to obtain the City's approval before commencing construction.
- d) Re-locate existing poles and utilities, where necessary. Remove aerial trespass (es).

7. Engineering

Road and utility construction design, construction supervision, and quality control supervision of all off-site and site services including on-site ground recharge drainage collection and disposal systems, must be performed by an approved consulting civil engineer. Designs must be submitted to the city engineering department for review and marked "issued for construction" by the city engineer before construction may begin.

8. 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 Works & Utilities Department. 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.

9. Servicing Agreements for Works and Services

- (a) A Servicing Agreement is required for all 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.

10. Geotechnical Report

As a requirement of this application the owner must provide a geotechnical report prepared by a Professional Engineer qualified in the field of hydro-geotechnical survey to address the following:

- (a) Area ground water characteristics.
- (b) Site suitability for development, unstable soils, etc.
- (c) Drill and / or excavate test holes on the site and install piezometers if necessary. Log test hole data to identify soil characteristics, identify areas of fill if any. Identify unacceptable fill material, analyse soil sulphate content, identify unsuitable underlying soils such as peat, etc. and make recommendations for remediation if necessary.
- (d) List extraordinary requirements that may be required to accommodate construction of roads and underground utilities as well as building foundation designs.
- (e) Additional geotechnical survey may be necessary for building foundations, etc.

11. Bonding and Levy Summary(a) Bonding

Water service upgrades	\$ 10,000
Sanitary sewer service upgrades	\$ 10,000
Guisachan Rd frontage improvements	\$ 31,500
Total Bonding	\$51,500.00


NOTE: The bonding amount shown above are comprised of estimated construction costs escalated by 140% to include engineering design and contingency protection and are provided for information purposes only. The owner should engage a consulting civil engineer to provide detailed designs and obtain actual tendered construction costs if he wishes to do so. Bonding for required off-site construction must be provided and may be in the form of cash or an irrevocable letter of credit, in an approved format.

The owner must also enter into a servicing agreement in a form provided by the City.

12. Development Permit and Site Related Issues

Access and Manoeuvrability

- (i) The access to the site is from lane only.
- (ii) Indicate on the site plan, the locations of loading bays as well as the garbage and recycle bins as required.



Steve Muenz, P. Eng.
Development Engineering Manager
SS

CITY OF KELOWNA

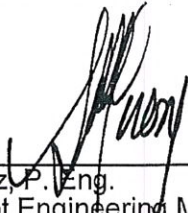
MEMORANDUM

Date: January 25, 2016
File No.: OCP15-0019
To: Community Planning (TY)
From: Development Engineer Manager (SM)
Subject: 990 Guisachan Rd

The Development Engineering comments and requirements regarding this OCP amendment application are as follows:

1. **General.**

- a) All the offsite infrastructure and services upgrades are addressed in the Rezoning Engineering Report under file Z15-0065.



Steve Muenz, P. Eng.
Development Engineering Manager

SS





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1302 MIKE HILL DRIVE
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PROJECT NORTH

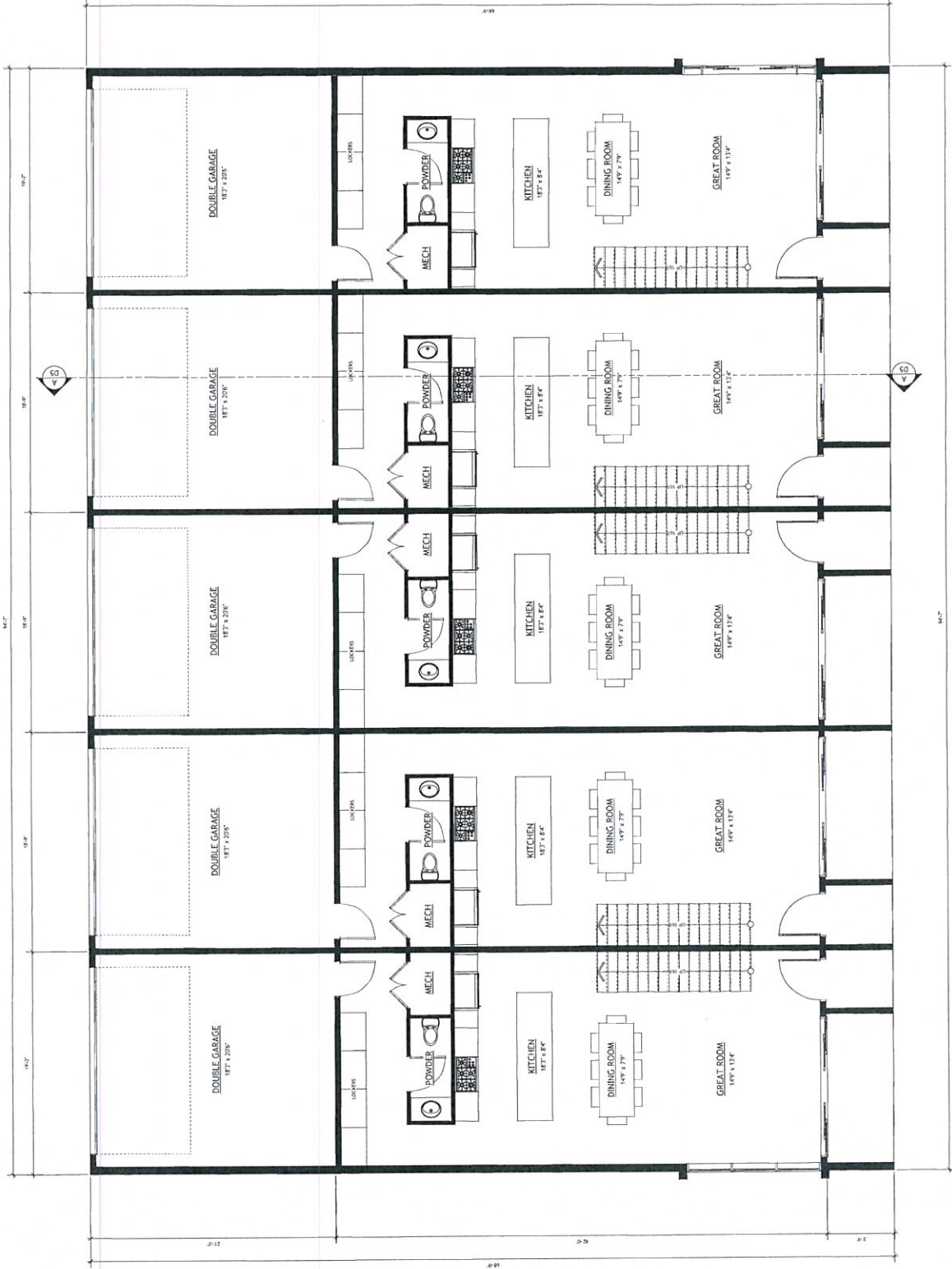
REVISION	DATE	DESCRIPTION
A	22 JAN 2014	ELUAVINA SITE REVISIONS

PROJECT
TOWNHOME DEVELOPMENT
980 GUISACHAN ROAD
KELOWNA, BC V1Y 8W8
LOT 2 PLAN KAP1470

DRAWING TITLE
MAIN FLOOR PLAN

DATE
NOVEMBER 25, 2015

DRAWING NUMBER
3 of 7



1 MAIN FLOOR PLAN
Scale: 1/4" = 1'-0" INDIVIDUAL FFA - 755 SQ. FT. (701.46m²)



URS DESIGN
1302 MINE HILL DRIVE
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PROJECT NORTH

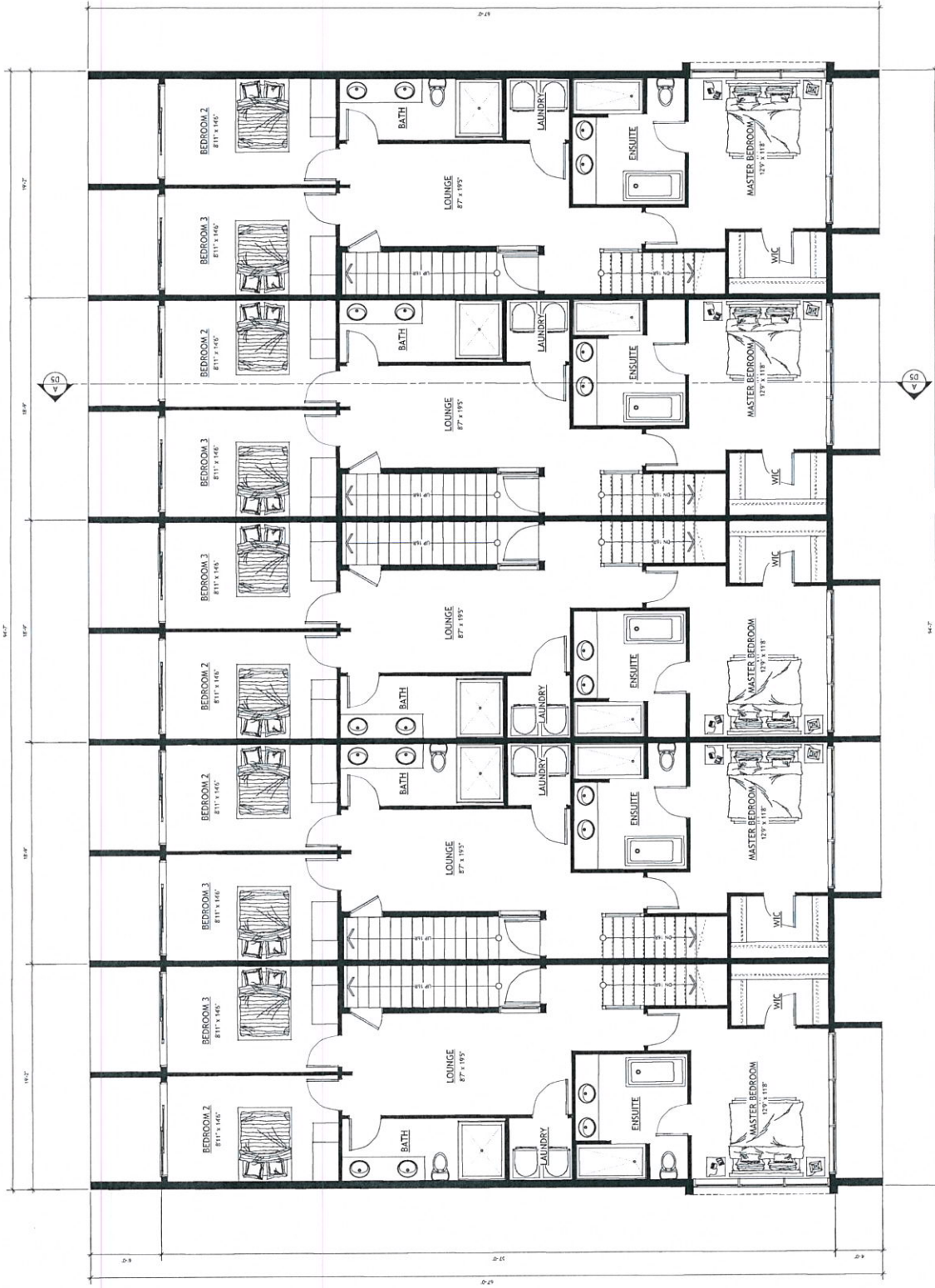
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A	22 JAN 2014	ELEVATION & DATE REVISIONS

PROJECT
TOWNHOME DEVELOPMENT
990 GUISACHAN ROAD
KELOWNA, BC V1Y 9W8
LOT 2 PLAN KAP1470

DRAWING TITLE
SECOND FLOOR PLAN

DATE
NOVEMBER 25, 2015

DRAWING NUMBER
4 of 7



1 SECOND FLOOR PLAN
Scale: 1/4" = 1'-0" INDIVIDUAL FPA - 972 SQ.FT. [03.300]



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PROJECT NORTH

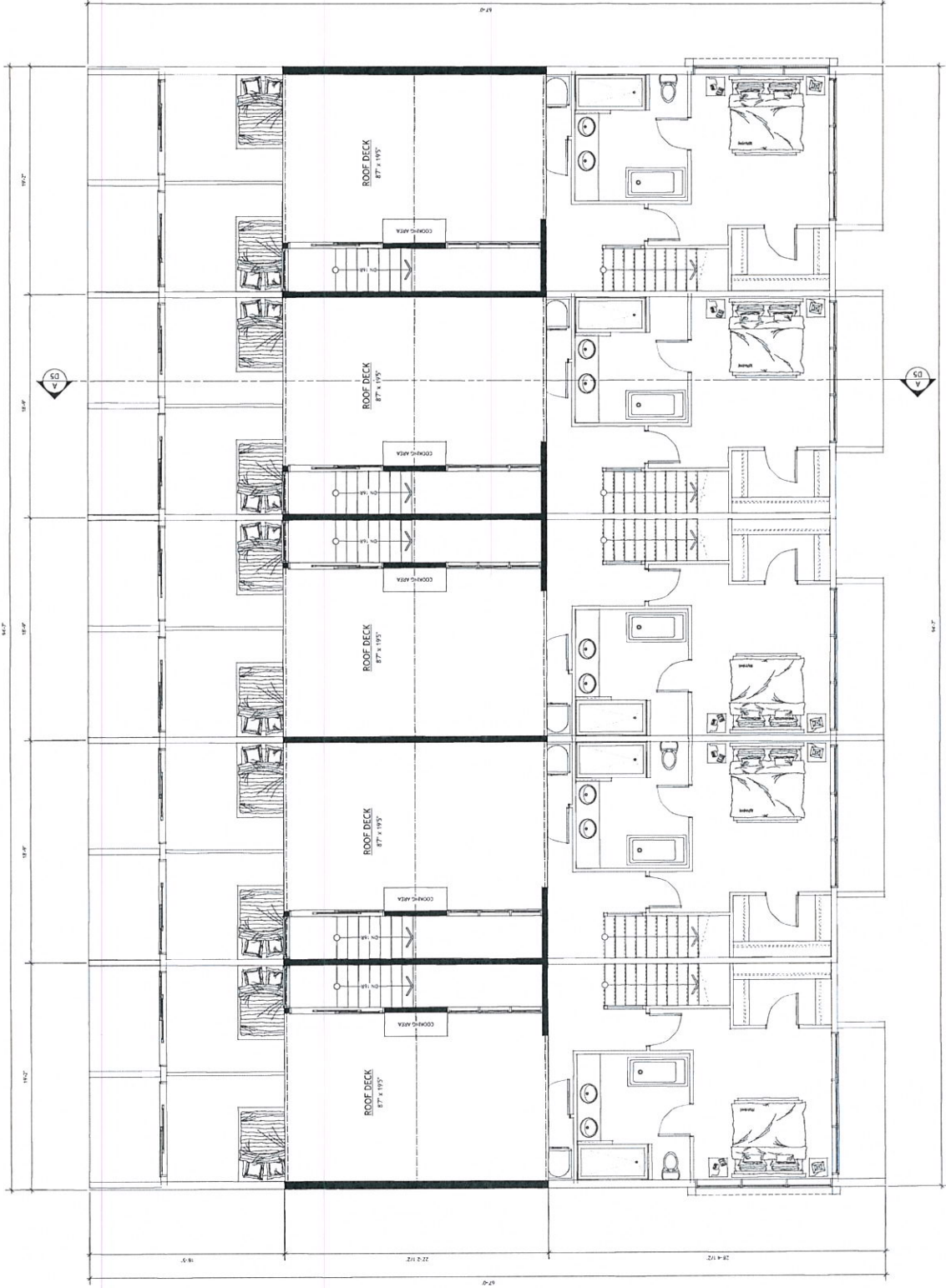
REVISION	DATE	DESCRIPTION
A	22 JAN 2014	ELEVATION & SITE REVISIONS

PROJECT
TOWNHOME DEVELOPMENT
980 GUISACHAN ROAD
KELOWNA, BC V1Y 9W8
LOT 2 PLAN KAP1470

DRAWING TITLE
ROOF LIVING PLAN

DATE
NOVEMBER 25, 2015

DRAWING NUMBER
5 of 7



1 ROOF LIVING PLAN
SCALE: 1/4" = 1'-0" INDIVIDUAL TFA = 315 SQ.FT. (29.JMF)



IAN DENSON
 1302 MIKE HILL DRIVE
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PROJECT NORTH

REVISION	DATE	DESCRIPTION
A	22/02/2015	ELEVATION & SITE REVISIONS

PROJECT

TOWNHOME DEVELOPMENT
 980 GUISSACHAN ROAD
 KELOWNA, BC V1Y 9W8
 LOT 2 PLAN KAP1470

DRAWING TITLE

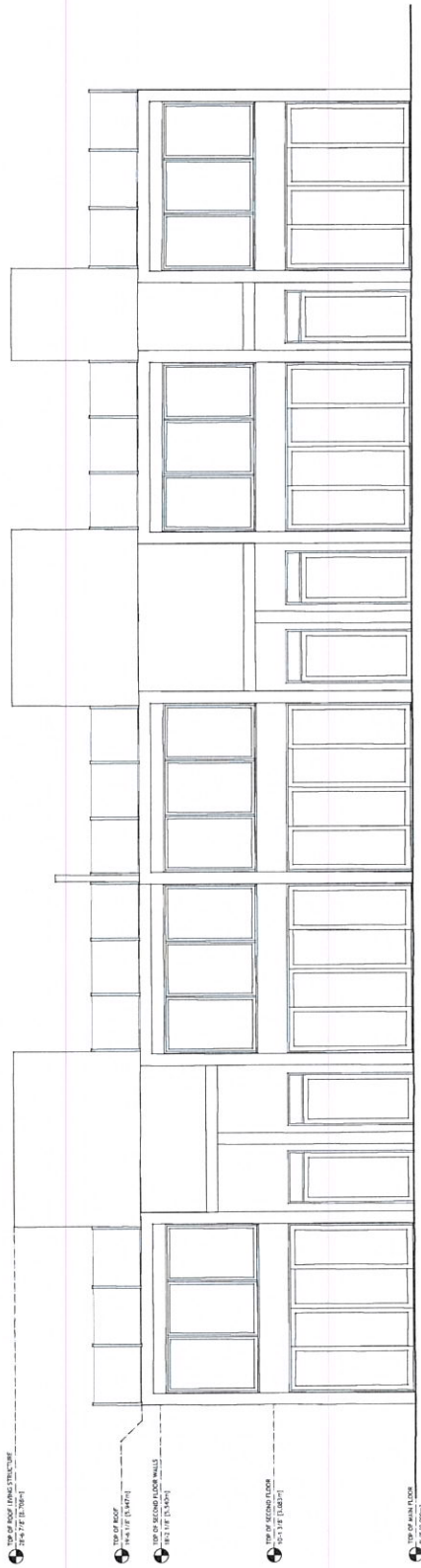
ELEVATIONS

DATE

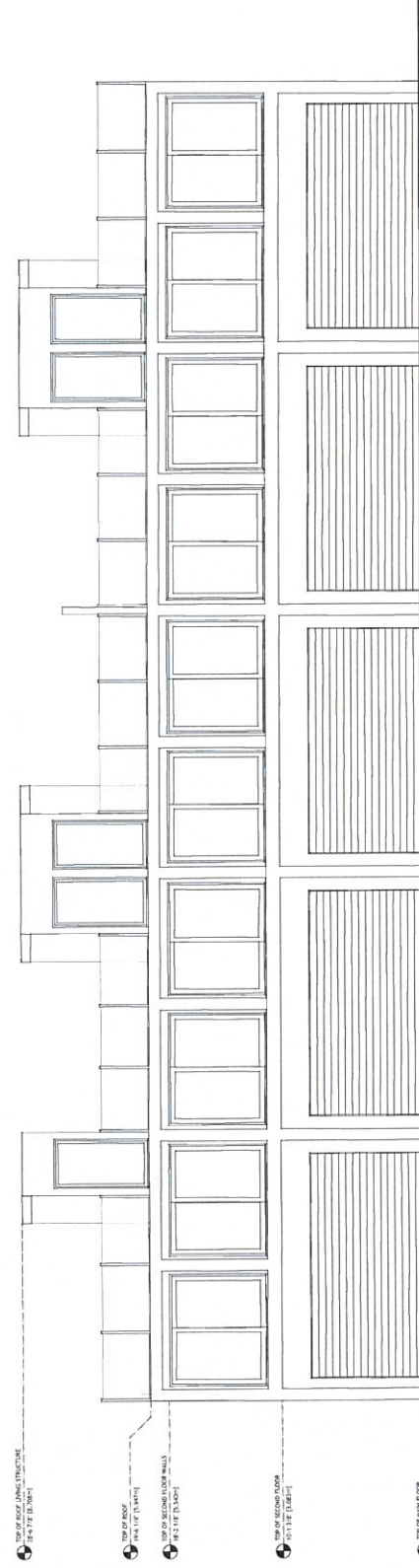
NOVEMBER 25, 2015

DRAWING NUMBER

1 of 7



1 SOUTH ELEVATION
 Scale: 1/4" = 1'-0"



2 NORTH ELEVATION
 Scale: 1/4" = 1'-0"



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PROJECT NORTH

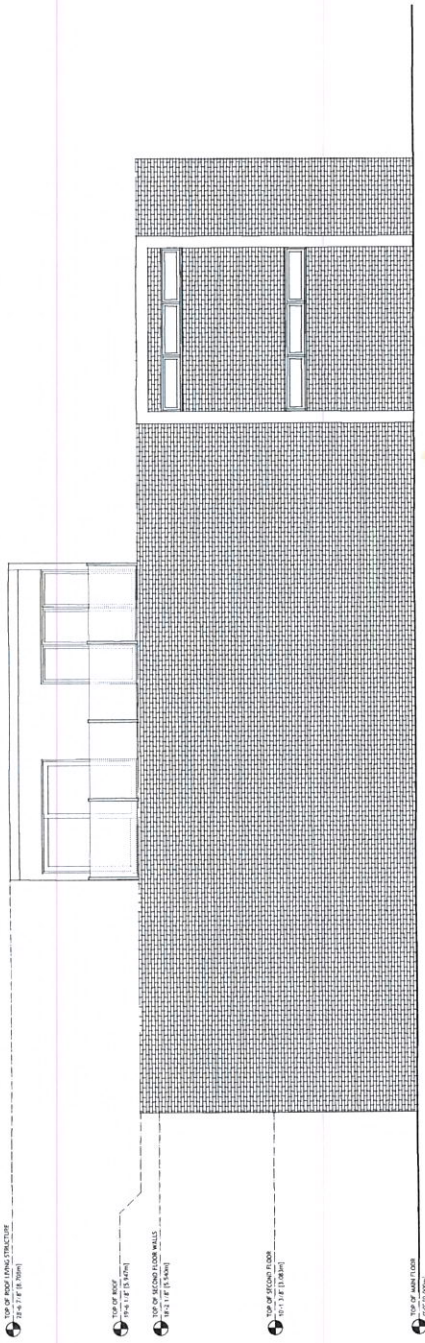
REVISION	DATE	DESCRIPTION
A	22/04/2014	ELEVATIONS & SITE ELEVATIONS

PROJECT
 TOWNHOME DEVELOPMENT
 980 GUISSACHAN ROAD
 KELOWNA, BC V1Y 9W8
 LOT 2 PLAN KAP1470

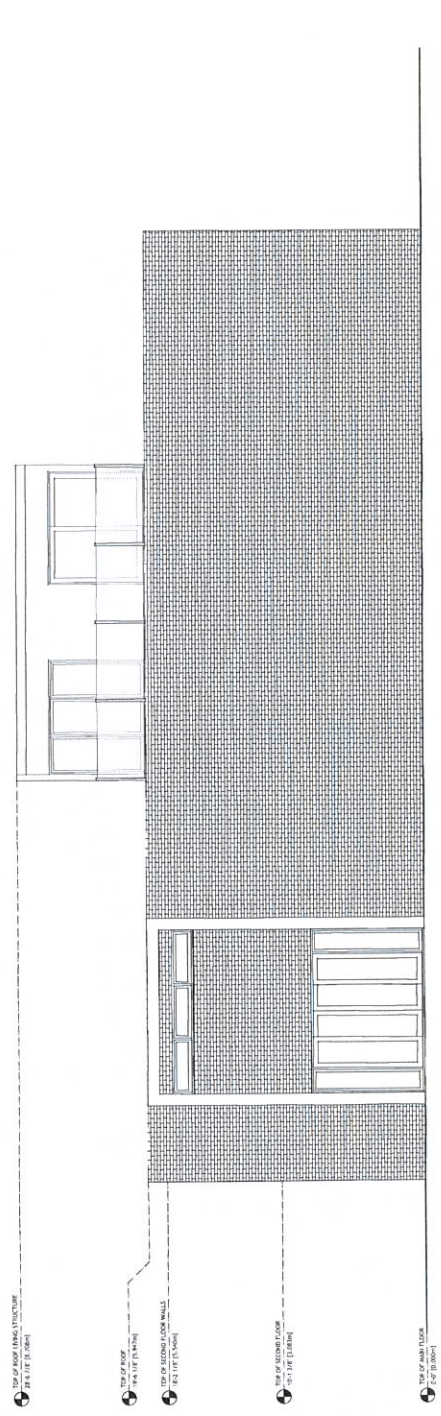
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 ELEVATIONS

DATE
 NOVEMBER 25, 2015

DRAWING NUMBER
 2 of 7



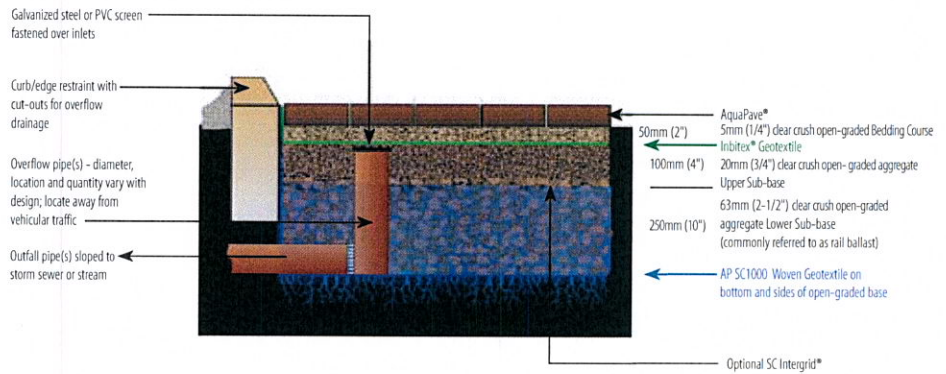
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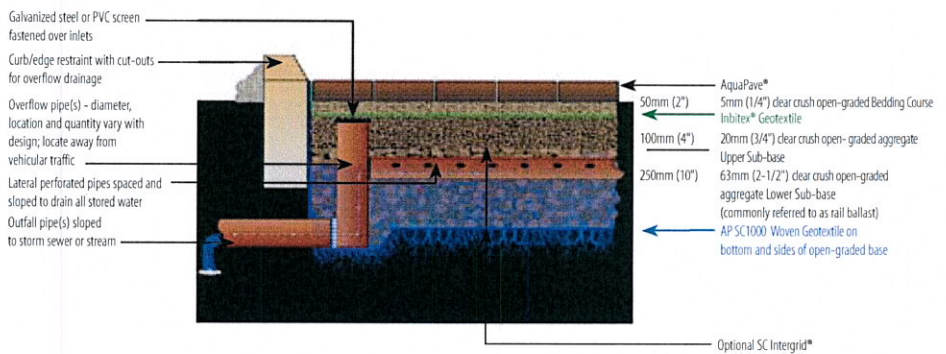
2 EAST ELEVATION
 Scale: 1/4" = 1'-0"

Typical Systems and Exfiltration Options *(Modify to site conditions)*

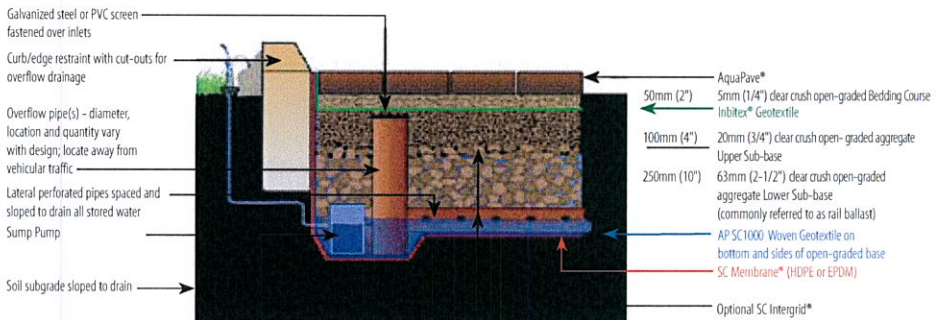
Full Exfiltration System



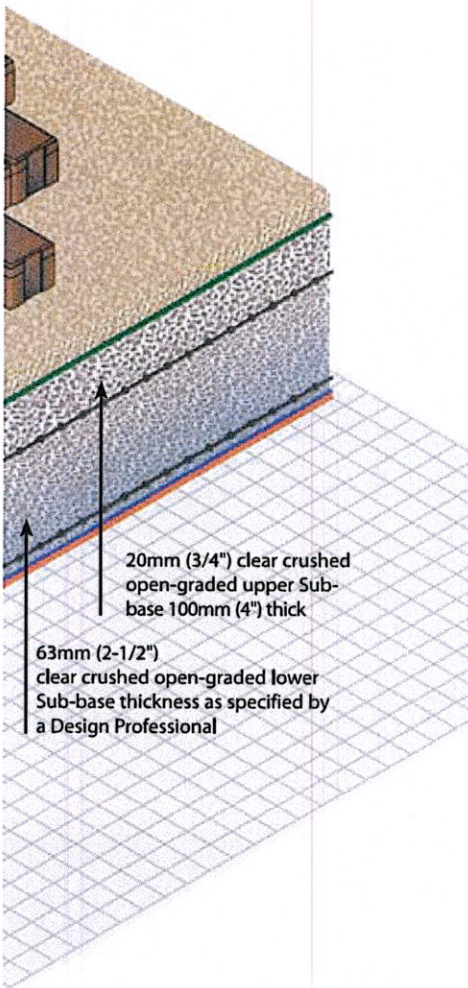
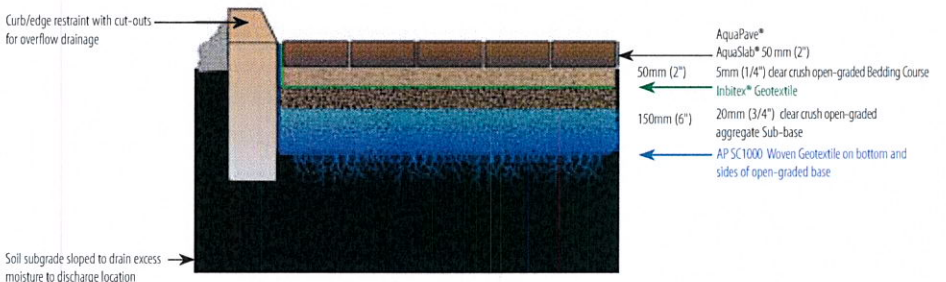
Partial Exfiltration System



No Exfiltration System



Typical Residential Driveway/Sidewalk Construction



On all designs:

- Open-graded base thickness varies depending on water management and/or structural requirements.
- For pedestrian sidewalks or residential driveway applications only the 20mm clear crushed open-graded aggregate, upper sub-base is required. This should be a minimum of 6".