# CITY OF KELOWNA

# MEMORANDUM

**Date:** March 9, 2017
**File No.:** Z17-0022

**To:** Community Planning (EW)

**From:** Development Engineering Manager (SM)

**Subject:** 1065 Guisachan Road RU1 to RU1c

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

1. Domestic Water and Fire Protection

   Our records indicate that this property is currently serviced with a 19mm-diameter water service which is adequate for this application.

2. Sanitary Sewer

   Our records indicate that this property is currently serviced with a 100mm-diameter sanitary sewer service which is adequate for this application.

3. Development Permit and Site Related Issues

   Direct the roof drains onto splash pads.

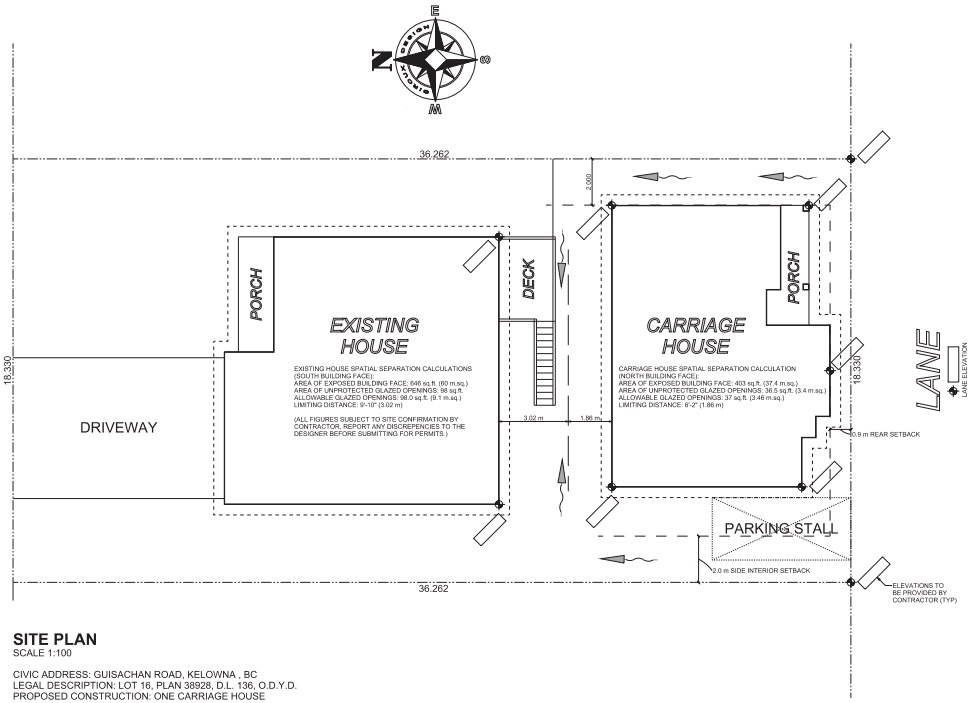
4. Electric Power and Telecommunication Services

   It is the applicant's responsibility to make a servicing application with the respective electric power, telephone and cable transmission companies to arrange for service upgrades to these services which would be at the applicant's cost.

Steve Muenz, P. Eng.
Development Engineering Manager

SS

SCHEDULE A
This forms part of application
# Z17-0022
Planner Initials EW
City of Kelowna
COMMUNITY PLANNING




**SITE PLAN**
SCALE 1:100

CIVIC ADDRESS: GUISACHAN ROAD, KELOWNA , BC
LEGAL DESCRIPTION: LOT 16, PLAN 38928, D.L. 136, O.D.Y.D.
PROPOSED CONSTRUCTION: ONE CARRIAGE HOUSE
ZONING: RU1c
LOT AREA: 664.7 m.sq.

CARRIAGE HOUSE ZONING REQUIREMENTS
MAXIMUM HEIGHT: 4.8 m (PROPOSED 4.72 m)
FRONT YARD: n/a
MIN. SIDE YARD: 2.0 m
MIN. REAR YARD WITH A LANE: 0.9 m
MIN. SETBACK FROM PRINCIPAL BUILDING: 3.0 m
SINGLE STOREY MAX. COMBINED AREA OF ALL ACCESSORY BUILDINGS, STRUCTURES, AND CARRIAGE HOUSES: 130 m.sq. (PROPOSED 100 m.sq.)
SINGLE STOREY MAX. NET FLOOR AREA OF CARRIAGE HOUSE: 100 m.sq. (PROPOSED 100 m.sq.)
MAXIMUM COMBINED LOT COVERAGE OF ALL ACCESSORY BUILDINGS, STRUCTURES & CARRIAGE HOUSES: 20% (PROPOSED 15%)

SITE DRAINAGE:
ALL GRADES TO SLOPE AWAY FROM FOUNDATION SO THAT WATER WILL NOT ACCUMULATE AT OR NEAR THE BUILDING. SURFACE DRAINAGE SHALL BE DIRECTED AWAY FROM THE LOCATION OF A WATER SUPPLY OR SCEPTIC TANK DISPOSAL BED. DRY WELLS SHALL NOT BE LESS THAN 16'-4" (5.0 m) FROM THE BUILDING FOUNDATION AND LOCATED SO THAT DRAINAGE IS AWAY FOM THE BUILDING.

SITE DRAINAGE SHOULD CONFORM TO ONE OF THE TWO FOLLOWING DRAINAGE METHODS:
1) BACK TO FRONT - WITH THIS TYPE OF GRADING, THE REAR LOT LINE IS THE HIGH POINT. FIRST OF ALL AN ELEVATED APRON MUST BE CREATED AROUND THE HOUSE. THIS ALLOWS THE SURFACE DRAINAGE TO FLOW TOWARDS THE BACK AND THEN FORWARD TO THE STREET AT THE EDGES OF THE PROPERTY. BACK TO FRONT GRADING IS TYPICAL OF PROPERTIES ON A HILLSIDE OR MOUNTAINSIDE.
2) SPLIT - WITH THIS TYPE, THE HOUSE IS THE HIGH POINT AND THE LOT IS GRADED SO THAT SURFACE DRAINAGE FLOWS FORWARD TO THE STREET AND BACKWARD TOWARD THE REAR LOT LINE, WHICH IS THEN GENERALLY DRAINED BY A SWALE AND CATCH BASIN SYSTEM. THIS IS THE MORE COMMON TYPE AND IS TYPICAL OF HOUSING DEVELOPMENTS ON RELATIVELY FLAT LAND.

PLAN AND DESIGN SITE GRADING AND FOUNDATION DRAINAGE TO ANTICIPATE ALL SOURCES OF MOISTURE; DIVERT WATER AWAY FROM THE BASEMENT WALL AND PROVIDE AN EFFECTIVE DRAINAGE LAYER AROUND THE PERIMETER OF THE BASEMENT. THIS WILL PREVENT THE ACCUMULATION OF GROUND WATER THAT CAN CAUSE HYDROSTATIC PRESSURE ON THE BASEMENT WALLS AND AT THE FOOTINGS; DESIGN AND CONSTRUCT WINDOW WELLS PROPERLY TO ENSURE ACCEPTABLE PERFORMANCE UNDER ADVERSE WEATHER CONDITIONS.

SIZE AND LOCATE SUMPS AND SUMP PUMPS TO EFFECTIVELY CONTROL THE GROUNDWATER LEVEL OVER THE ENTIRE BASEMENT AREA.

MOST SURFACE DRAINAGE PROBLEMS OCCUR ALONG THE SIDE LOT LINES BETWEEN TWO HOUSES. ESPECIALLY WHERE THE HOUSES ARE CLOSE TOGETHER. IN THESE AREAS, A WELL-DEFINED SWALE BETWEEN THE HOUSES SHOULD BE FORMED, WHICH ALLOWS SURFACE WATER TO BE DIVERTED FROM THE HOUSE AND DIRECTED TO THE SWALE AND THEN FORWARD OR BACKWARD, DEPENDING ON THE TYPE OF LOT-GRADING APPROACH USED.

WHERE DOWNSPOUTS ARE PROVIDED AND ARE NOT CONNECTED TO A SEWER, EXTENSIONS SHALL BE PROVIDED TO CARRY RAINWATER AWAY FROM THE BUILDING IN A MANNER WHICH WILL PREVENT SOIL EROSION. DOWNSPOUTS FROM THE ROOF SHOULD DISCHARGE AT GRADE ONTO A SPLASH PAD AT LEAST 3.0" (1.0 m) AWAY FROM THE BUILDING; THEY SHOULD NOT BE DIRECTED TOWARD ADJACENT PROPERTY BUT RATHER TOWARD SWALES ESTABLISHED BETWEEN THE PROPERTIES AND WITHIN THE PROPERTY BOUNDARY.

IN ADDITION, THE FOLLOWING GUIDELINES SHOULD BE FOLLOWED:
MINIMUM HEIGHT OF TOP OF FOUNDATION WALL ABOVE GRADE: 8" (200 mm)
MINIMUM SLOPE AWAY FROM HOUSE FOR AT LEAST 5'-0" (1.5 m): 5% - APPROXIMATELY 3/4" per 12" (19 mm per 300 mm)
MINIMUM SLOPE ON REST OF LOT: 1.5% - APPROXIMATELY ¼" per 12" (6 mm per 300 mm)
MINIMUM ELEVATION OF LOT, AT HOUSE, ABOVE STREET LEVEL: 1'-6" (450 mm)
MINIMUM DEPTH OF SWALES: 6" (150 mm)

WINDOW WELLS SHALL BE DRAINED TO THE FOOTING LEVEL OR OTHER SUITABLE LOCATION. FOUNDATION DRAINS (DRAINAGE PIPE OR WEEPING TILE) SHALL DRAIN TO A SEWER, DRAINAGE DITCH OR DRY WELL. SURFACE DRAINAGE SHOULD BE DIRECTED AWAY FROM WINDOW WELLS, EXTERIOR STAIRWELLS AND DECKS. PLANNED ELEVATIONS AT THE PERIMETER OF THE LOT SHOULD NOT BE ALTERED AS A CONSEQUENCE OF GARDENING, LANDSCAPING OR FENCING PROJECTS.

ATTACHMENT A
This forms part of application
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Planner Initials EW

SITE & DRAINAGE PLAN

BARNETT CONSTRUCTION
DESIGN BY: A.J.G. DATE: January 26, 2017
DRAWN BY: A.J.G. REVISED:

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Giroux Design Group
#405-160 Lakeshore Drive W., Penticton, BC, V2A 9C2, Canada, t: 250.770.3085
e-mail: courtney@girouxdesigngroup.com www.girouxdesigngroup.com

PLAN NO. WP-5498
SHEET NO. A1

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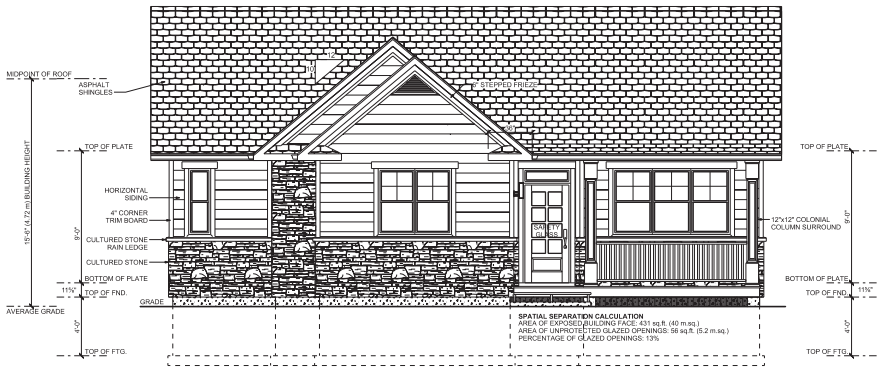
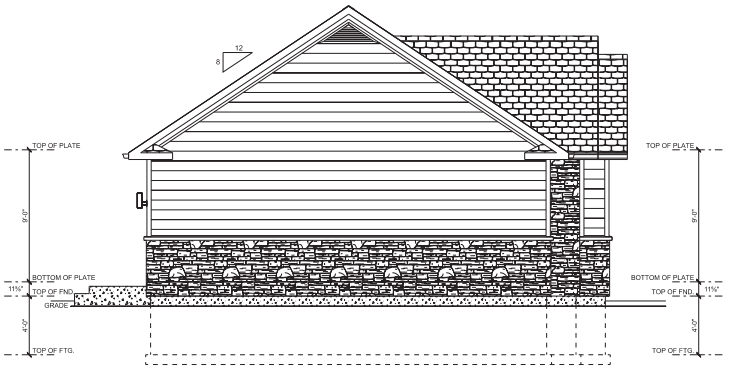
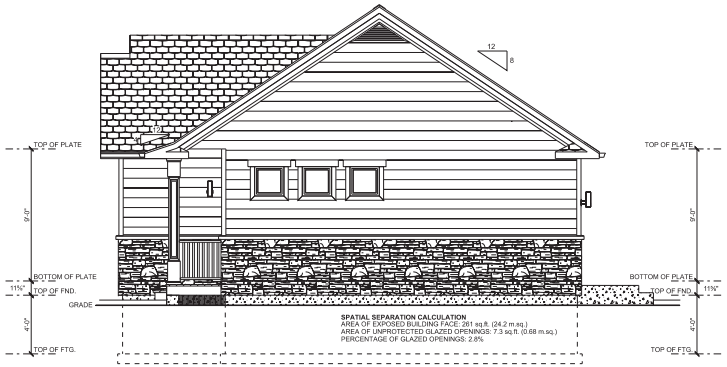



FRONT ELEVATION (FACING LANE)
SCALE: 1/4" = 1'-0"




LEFT ELEVATION

REAR ELEVATION (FACING HOUSE)




RIGHT ELEVATION

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# EXTERIOR ELEVATIONS

BARNETT CONSTRUCTION
DESIGN BY: A.J.G.
DRAWN BY: A.J.G.
DATE: January 29, 2017
REVISED:

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1405-160 Lakeshore Drive W., Penticton, BC, V2A 9C2, Canada, t: 250.770.3285
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