



SCHEDULE	C
This forms part of application # DP22-0222	
Planner Initials	SS
City of Kelowna COMMUNITY PLANNING	

March 20, 2023

McKinley Beach Townhomes

North American Property Group

#302-3275 Lakeshore Road

Attn: Russ Watson

Via email to: rwatson@nadg.com

Re: McKinley Beach Townhomes– Preliminary Cost Estimate for Bonding

Dear Russ:

As per the original bonding letter for the project McKinley Beach Townhomes dated October 19, 2022, the bonding amount for the project remains unchanged as outlined below for the proposed landscape works shown in the revised conceptual landscape plan dated 23.03.20.

- Landscape Improvements: 5,537 square metres (59,600 square feet) = \$150,000.00

This preliminary cost estimate is inclusive of hardscapes, site furnishings, trees, shrubs, turf, mulch, topsoil & irrigation.

You will be required to submit a performance bond to the City of Kelowna in the amount of 125% of the preliminary cost estimate. Please do not hesitate to contact me with any questions about the landscape plan.

Best regards,

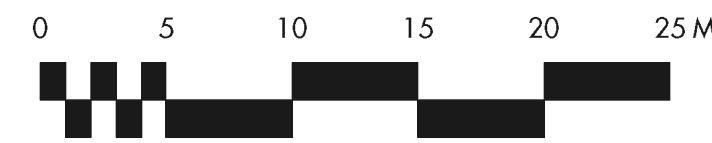
Fiona Barton, MBCSLA, CSLA

as per

Ecora Engineering & Resource Group Ltd.

200-2045 Enterprise Way, Kelowna, BC, V1Y 9T5 P 250.469.9757

ecora.ca



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COMMUNITY PLANNING

NOTES

1. PLANT MATERIAL AND CONSTRUCTION METHODS SHALL MEET OR EXCEED THE CANADIAN NURSERY LANDSCAPE ASSOCIATION 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 BLACK WOOD MULCH OR DECORATIVE ROCK MULCH, AS SHOWN IN PLANS. DO NOT PLACE WEED MAT UNDERNEATH TREE AND SHRUB BEDS IN WOOD MULCH AREAS.
4. TREE AND SHRUB BEDS TO RECEIVE A MINIMUM 300mm DEPTH TOPSOIL PLACEMENT. HYDROSEED AREAS TO RECEIVE A MINIMUM OF 50mm 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 150mm DEPTH OF GROWING MEDIUM IS REQUIRED BENEATH TURF AREAS. TURF AREAS SHALL MEET EXISTING GRADES AND HARD SURFACES FLUSH.
6. HYDROSEEDING DRYLAND SEED AREAS:

DRYLAND SEED MIXTURE	BY WEIGHT	BY SPECIES
BLUE BUNCH WHEAT GRASS	40%	22%
ROUGH FESCUE	25%	20%
IDAHO FESCUE	15%	19%
PERENNIAL RYEGRASS	10%	7%
SANDBERG BLUEGRASS	5%	13%
JUNE GRASS	4%	18%
CANADA BLUEGRASS	1%	1%

HYDROSEEDING APPLICATION RATE

NATIVE SEED	DRYLAND SEED MIXTURE	125KG/HECTARE
FERTILIZER	18-18-18-2, 50% SULPHUR COATED UREA	300KG/HECTARE
MULCH	CANFOR ECOFIBRE PLUS TAC	2,800KG/HECTARE
TACKIFIER	GUAR	3% OF MIX

THE PRECEDING HYDROSEEDING MIXTURE IS TO BE APPLIED TO THE DRYLAND SEED AREA AS SHOWN ON THE DRAWING. SEED MIX TO BE CERTIFIED BY AGRICULTURE CANADA. REFER MANUFACTURER'S SPECIFICATIONS FOR PRODUCT DELIVERY, STORAGE & PROTECTION.

PLANT LIST

BOTANICAL NAME	COMMON NAME	QTY	SIZE/SPACING & REMARKS
TREES			
ACER SACCHARUM 'REBA'	REBA SUGAR MAPLE	15	6cm CAL
CARPINUS CAROLINIANA 'CCSQU'	PALSADE AMERICAN HORNBEAM	28	6cm CAL
GYMNOCLADUS DIOICUS 'ESPRESSO JFS'	ESPRESSO KENTUCKY COFFEE TREE	5	6cm CAL
LIRODENDRON TULIPIFERA 'FASTIGIATA'	COLUMBIAN TULIP TREE	9	6cm CAL
MAGNOLIA 'GALAXY'	GALAXY MAGNOLIA	2	6cm CAL
PINUS PONDEROSA	PONDEROSA PINE	18	2.5m HT MIN.
SHRUBS			
CORNUS SANGUINEA 'WINTER BEAUTY'	WINTER BEAUTY DOGWOOD	17	#02 CONT. /2.5M O.C. SPACING
CORNUS SERICEA 'KELSEY'	KELSEY DOGWOOD	32	#02 CONT. /1.8M O.C. SPACING
HYDRANGEA MACROPHYLLA 'BAILMER'	ENDLESS SUMMER HYDRANGEA	32	#02 CONT. /1.8M O.C. SPACING
HYDRANGEA PANICULATA 'JAN'	LITTLE LIME HYDRANGEA	46	#02 CONT. /1.5M O.C. SPACING
PHILADELPHUS LEWISII 'BUZZARD'	BUZZARD MOCKORANGE	32	#02 CONT. /1.8M O.C. SPACING
SALIX PUPUREA 'NANA'	DWARF ARCTIC WILLOW	17	#15 CONT. /2.5M O.C. SPACING
SPIRAEA BULMALDA 'ANTHONY WATERER'	ANTHONY WATERER SPIREA	26	#02 CONT. /2.0M O.C. SPACING
SYRINGA MEYERI 'PALIBIN'	DWARF KOREAN LILAC	32	#02 CONT. /1.8M O.C. SPACING
TAXUS X MEDIA 'HICKSII'	HICK'S YEW	72	#02 CONT. /1.2M O.C. SPACING
PERENNIALS, GRASSES & GROUNDCOVERS			
ACHILLEA MILLEFOLIUM 'SUMMER PASTELS'	SUMMER PASTELS YARROW	39	#01 CONT. /1.2M O.C. SPACING
ARCTOSTAPHYLOS UVA-URSI	KINNICKINICK	39	#01 CONT. /1.2M O.C. SPACING
CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER REED GRASS	39	#01 CONT. /1.2M O.C. SPACING
ECHINACEA 'CHEYENNE SPIRIT'	CHEYENNE SPIRIT CONEFLOWER	57	#01 CONT. /1.0M O.C. SPACING
HOSTA 'NORTHERN EXPOSURE'	NORTHERN EXPOSURE HOSTA	25	#01 CONT. /1.5M O.C. SPACING
LUPINUS 'RUSSEL'S MIX'	RUSSEL'S MIX LUPINES	57	#01 CONT. /1.0M O.C. SPACING
MATTEUCCIA STRUTHIOPTERIS	OSTRICH FERN	39	#01 CONT. /1.2M O.C. SPACING
PANICUM VIRGATUM 'ROTSTRAHIBUSCH'	RED SWITCH GRASS	39	#01 CONT. /1.2M O.C. SPACING
PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	39	#01 CONT. /1.2M O.C. SPACING
PEROVSKIA ATRIPICIFOLIA	RUSSIAN SAGE	39	#01 CONT. /1.2M O.C. SPACING
SEDUM 'AUTUMN JOY'	AUTUMN JOY STONECROP	57	#01 CONT. /1.0M O.C. SPACING

PROJECT TITLE
MCKINLEY BEACH TOWNHOMES
Kelowna, BC

DRAWING TITLE
CONCEPTUAL LANDSCAPE PLAN

ISSUED FOR / REVISION

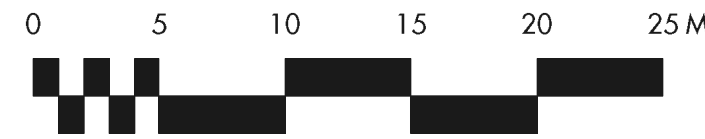
NO.	DATE	REVISION
1	22.08.03	Issued for DP
2	22.08.22	Issued for DP
3	22.10.07	Issued for DP
4	22.11.16	Issued for DP
5	23.03.20	Issued for DP

PROJECT NO. 22-0374
DESIGN BY AM
DRAWN BY FH
CHECKED BY FB
DATE MAR. 20, 2023
SCALE 1:300
PAGE SIZE 24x36

SEAL

DRAWING NUMBER
L1/2

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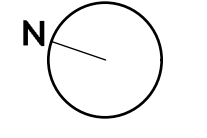
City of Kelowna
COMMUNITY PLANNING

WATER CONSERVATION CALCULATIONS
LANDSCAPE MAXIMUM WATER BUDGET (WB) = 2,522 cu.m. / year
ESTIMATED LANDSCAPE WATER USE (WU) = 1,410 cu.m. / year
WATER BALANCE = 1,112 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.

IRRIGATION LEGEND

<p>ZONE #1: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 73 sq.m. MICROCLIMATE: NORTHWEST EXPOSURE, PARTIALLY SHADED BY BUILDING & TREES ESTIMATED ANNUAL WATER USE: 24 cu.m.</p>	<p>ZONE #13: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 74 sq.m. MICROCLIMATE: NORTHWEST EXPOSURE, PARTIALLY SHADED BY TREES ESTIMATED ANNUAL WATER USE: 63 cu.m.</p>
<p>ZONE #2: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 200 sq.m. MICROCLIMATE: NORTHWEST EXPOSURE, PARTIALLY SHADED BY BUILDING & TREES ESTIMATED ANNUAL WATER USE: 67 cu.m.</p>	<p>ZONE #14: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 86 sq.m. MICROCLIMATE: NORTHEAST EXPOSURE, PARTIALLY SHADED BY TREES ESTIMATED ANNUAL WATER USE: 74 cu.m.</p>
<p>ZONE #3: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 175 sq.m. MICROCLIMATE: SOUTHEAST EXPOSURE, PARTIALLY SHADED BY BUILDING & TREES ESTIMATED ANNUAL WATER USE: 59 cu.m.</p>	<p>ZONE #15: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 86 sq.m. MICROCLIMATE: NORTHEAST EXPOSURE, PARTIALLY SHADED BY TREES ESTIMATED ANNUAL WATER USE: 74 cu.m.</p>
<p>ZONE #4: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 174 sq.m. MICROCLIMATE: SOUTHEAST EXPOSURE, PARTIALLY SHADED BY BUILDING & TREES ESTIMATED ANNUAL WATER USE: 59 cu.m.</p>	<p>ZONE #16: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 97 sq.m. MICROCLIMATE: NORTHEAST EXPOSURE, PARTIALLY SHADED BY TREES ESTIMATED ANNUAL WATER USE: 83 cu.m.</p>
<p>ZONE #5: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 139 sq.m. MICROCLIMATE: SOUTHEAST EXPOSURE, PARTIALLY SHADED BY BUILDING & TREES ESTIMATED ANNUAL WATER USE: 45 cu.m.</p>	<p>ZONE #17: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 96 sq.m. MICROCLIMATE: SOUTHEAST EXPOSURE ESTIMATED ANNUAL WATER USE: 82 cu.m.</p>
<p>ZONE #6: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 87 sq.m. MICROCLIMATE: SOUTHEAST EXPOSURE, PARTIALLY SHADED BY BUILDING ESTIMATED ANNUAL WATER USE: 29 cu.m.</p>	<p>ZONE #18: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 102 sq.m. MICROCLIMATE: SOUTHWEST EXPOSURE, PARTIALLY SHADED BY TREES ESTIMATED ANNUAL WATER USE: 87 cu.m.</p>
<p>ZONE #7: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 182 sq.m. MICROCLIMATE: NORTHWEST EXPOSURE, PARTIALLY SHADED BY BUILDING ESTIMATED ANNUAL WATER USE: 61 cu.m.</p>	<p>ZONE #19: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 72 sq.m. MICROCLIMATE: NORTHWEST EXPOSURE, PARTIALLY SHADED BY BUILDING ESTIMATED ANNUAL WATER USE: 62 cu.m.</p>
<p>ZONE #8: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 199 sq.m. MICROCLIMATE: WEST EXPOSURE, PARTIALLY SHADED BY BUILDING & TREES ESTIMATED ANNUAL WATER USE: 66 cu.m.</p>	<p>ZONE #20: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 75 sq.m. MICROCLIMATE: SOUTHWEST EXPOSURE, PARTIALLY SHADED BY BUILDING & TREES ESTIMATED ANNUAL WATER USE: 64 cu.m.</p>
<p>ZONE #9: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 196 sq.m. MICROCLIMATE: SOUTHEAST EXPOSURE, PARTIALLY SHADED BY BUILDING & TREES ESTIMATED ANNUAL WATER USE: 65 cu.m.</p>	<p>ZONE #21: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 91 sq.m. MICROCLIMATE: SOUTHWEST EXPOSURE, PARTIALLY SHADED BY BUILDING & TREES ESTIMATED ANNUAL WATER USE: 78 cu.m.</p>
<p>ZONE #10: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS TOTAL AREA: 144 sq.m. MICROCLIMATE: SOUTHEAST EXPOSURE ESTIMATED ANNUAL WATER USE: 48 cu.m.</p>	<p>ZONE #22: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 81 sq.m. MICROCLIMATE: SOUTHWEST EXPOSURE, PARTIALLY SHADED BY BUILDING & TREES ESTIMATED ANNUAL WATER USE: 69 cu.m.</p>
<p>ZONE #11: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 75 sq.m. MICROCLIMATE: NORTHWEST EXPOSURE ESTIMATED ANNUAL WATER USE: 64 cu.m.</p>	
<p>ZONE #12: LOW VOLUME POP-UP SPRAYHEADS FOR TURF AREAS TOTAL AREA: 100 sq.m. MICROCLIMATE: NORTHEAST EXPOSURE ESTIMATED ANNUAL WATER USE: 86 cu.m.</p>	



PROJECT TITLE
MCKINLEY BEACH TOWNHOMES
Kelowna, BC

DRAWING TITLE
WATER CONSERVATION / IRRIGATION PLAN

ISSUED FOR / REVISION

1	22.08.03	Issued for DP
2	22.08.22	Issued for DP
3	22.10.07	Issued for DP
4	22.11.16	Issued for DP
5	23.03.20	Issued for DP

PROJECT NO: 22-0374
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DRAWN BY: FH
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SEAL



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L2/2

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APPLICANT INFORMATION

Owner	North American Property Group		Contractor co. name	Ecora Engineering & Resource Group Ltd.	
Project address	Lot 1, 3425 Hilltown Drive		Contractor contact name	Fiona Barton	
City	Kelowna		Contractor phone #	250-469-9757	
Owner phone #	250-575-0550		Contractor email	fiona.barton@ecora.ca	
Owner email	rwatson@nadg.com				
Province	BC	Postal Code:	V1Y 7S2	Preferred contact Owner <input type="checkbox"/> Contractor <input type="checkbox"/>	

NOTE: ALL 3 PAGES OF THE APPLICATION MUST BE COMPLETED AND SUBMITTED

LANDSCAPE AND IRRIGATION CHECKLIST

The Applicant in submitting this application, has adhered to:

- Applicable electrical standards, plumbing standards, and backflow prevention standards
- Bylaw 7900 Schedule 4 and 5
- Requirements of Water Regulation Bylaw

Where an exemption is required (e.g. golf course or large school field), contact the Water Smart program directly.

Note that checklists for selecting an irrigation contractor are available through the IIABC or the IA. Below is the link to the IIABC checklist.

<https://www.irrigationbc.com/page/selecting-a-contractor>

Applicant notes pertaining to the application:

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City of
Kelowna
COMMUNITY PLANNING

LANDSCAPE WATER USE AREA

Applicant: **North American Property Group** Address: **Lot 1, 3425 Hilltown Drive**

Step 1: Measure Total Landscape Area (LA)

Area of site that will absorb water:

4204 sq.m. (over 100 square meters)

Note: Include boulevard, and proposed lawn, plants, mulch, pervious decks or paving stones. Do not include areas that are not pervious such as buildings, paved driveways, concrete patios etc.


Step 2: Divide Into Landscape Treatments*		Plant Factor	Irrig Efficiency	Hydrozone Area	% of Total LA	Estimated Water
Note: each of the areas below are a 'HYDROZONE'		(PF)	(IE)	(HA)		(WU)
Unwatered Pervious Areas (not impervious paving)						
Mulch (Stone, bark or sand)		N/A	N/A	837	20%	N/A
Pervious deck (Spaced wood deck)		N/A	N/A		0%	N/A
Pervious paving (ie: AquaPave, Rima Pave)		N/A	N/A		0%	N/A
Naturalized meadow (wildflowers)		N/A	N/A	762	18%	N/A
Naturalized area (Existing natural area)		N/A	N/A		0%	N/A
Other:		N/A	N/A		0%	N/A
Swimming or ornamental pool		1	1		0%	0
Watered Planting Beds (shrubs or groundcover)						
<i>Planting Type</i>	<i>Irrig Efficiency</i>					
Low water use plants	High (Drip or Bubbler)	0.3	0.9		0%	0
Low water use plants	Moderate (Spray or Rotor)	0.3	0.7		0%	0
Moderate water use plants	High (Drip or Bubbler)	0.5	0.9	1571	37%	524
Moderate water use plants	Moderate (Spray or Rotor)	0.5	0.7		0%	0
High water use plants	High (Drip or Bubbler)	0.7	0.9		0%	0
High water use plants	Moderate (Spray or Rotor)	0.7	0.7		0%	0
Watered Mown Lawn Areas						
	Moderate (Spray or Rotor)	1	0.7	1034	25%	886
Special Landscape Areas (SLA)						
Vegetable Garden	High (Drip or Bubbler)	1	0.9		0%	0
Vegetable Garden	Moderate (Spray or Rotor)	1	0.7		0%	0
Commercial sportsfield turf	Moderate (Spray or Rotor)	1	0.7		0%	0
Rainwater or Recycled Water Use		0.3	1		0%	0
Totals				4204	100%	1410
Special Landscape Area (SLA) Sub total				0		

*If proposed design conditions are not shown on the form please contact Water Smart 250-469-8502

SCHEDULE C

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City of
Kelowna
COMMUNITY PLANNING

Applicant:

North American Property Group

Address: Lot 1, 3425 Hilltown Drive

CALCULATE & COMPARE WATER BUDGET TO ESTIMATED WATER USE

Total Landscape Area	4204	sq.m.
Landscape Water Budget (WB)	2522	cu.m./yr.
Estimated Landscape Water Use (WU)	1410	cu.m./yr.
Under (-OVER) Budget (Must be under Water Budget WB)	1,112	cu.m./yr.
	OK	

I confirm by completing the attached Landscape Water Conservation Report, that the project will conform to industry best practices for landscape and irrigation installation in Kelowna. I also acknowledge that the landscape treatments of the project will conform to the Hydrozone areas as identified in the Landscape Area Water Use Area table.

Name of Applicant (person submitting the form)


Date: _____

FOR CITY OF KELOWNA OFFICE USE ONLY

The calculations above satisfy the requirements of the Water Regulation Bylaw 10480 Section 4.4.2 and 4.4.3. and the application is hereby APPROVED with the signature of the Water Manager or designate.

Name of Kelowna Water Smart designate
For Water Manager

Date: _____

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