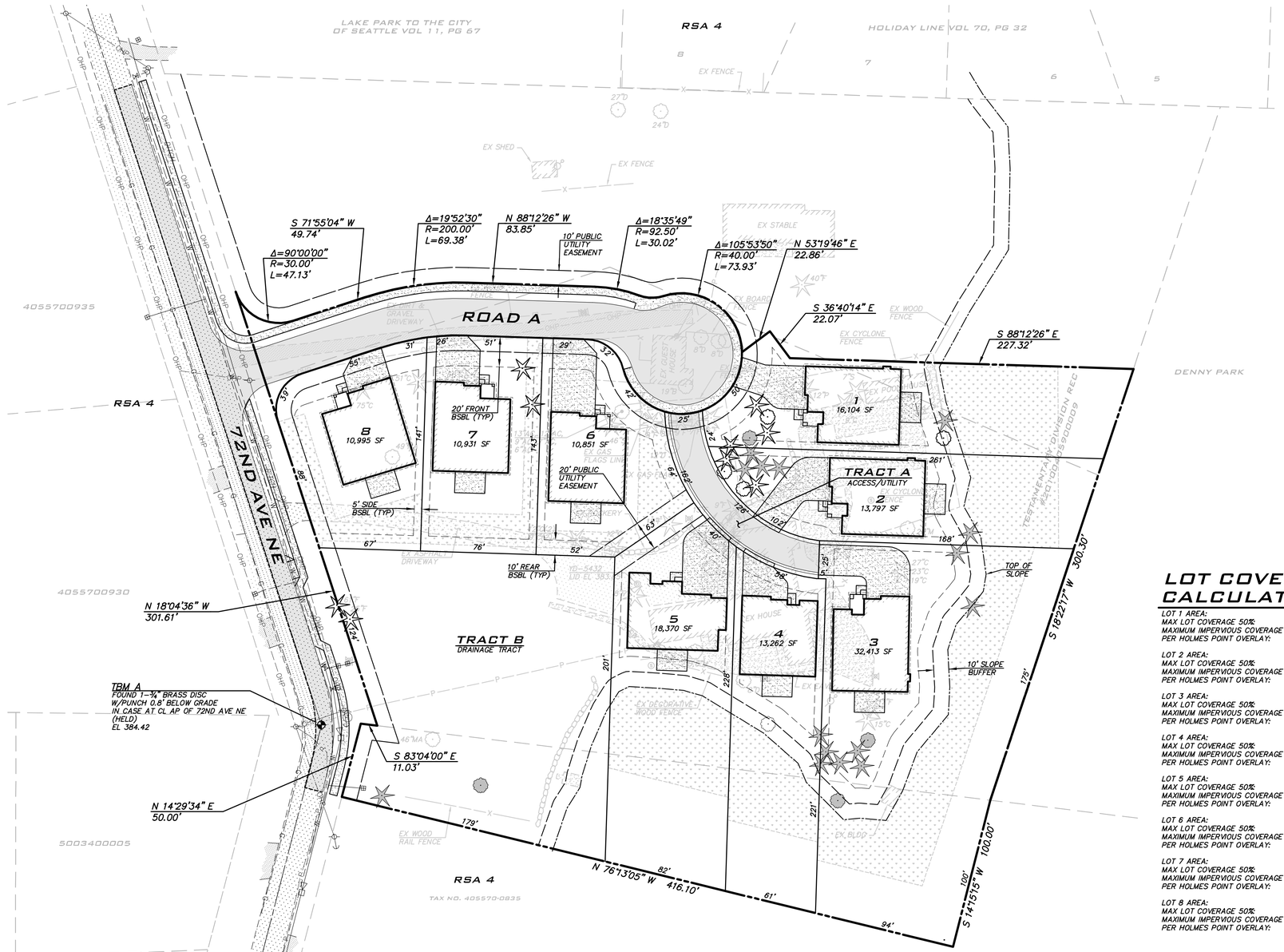
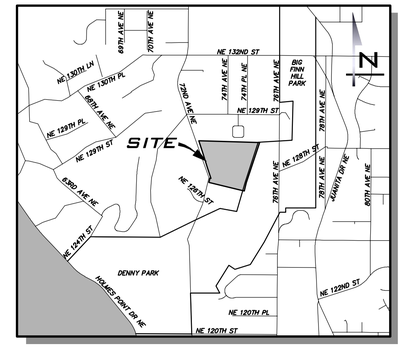
NW 1/4, SEC 25, TWP 26N, RGE 5E, W.M.

MACDONALD SOUTH SHORT PLAT





VICINITY MAP

NOT TO SCALE

PROJECT TEAM

APPLICANT

WILLIAM E. BUCHAN, INC
2630 116TH AVE NE, SUITE 100
BELLEVUE WA 98004
(425) 828-6424
CONTACT: GREG NELSON

CIVIL ENGINEER

THE BLUELINE GROUP
25 CENTRAL WAY, SUITE 400
KIRKLAND, WA 98033
(425) 216-4051 x224
CONTACT: TODD A. OBERG, PE

SURVEYOR

MEAD GILMAN & ASSOCIATES
17625 130TH AVE NE, SUITE 104
WOODINVILLE, WA 98072
(425) 486-1252
CONTACT: ED ANDERSON, PLS

SITE DATA

SITE ADDRESS:	12704 72ND AVE NE
PARCEL NUMBER:	4055700825
ZONING:	RSA 4
GROSS SITE AREA:	176,296 SF (4.04 AC)
NUMBER OF LOTS PROPOSED:	8
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL
MINIMUM LOT SIZE ALLOWED:	7,200 SF
SETBACKS:	FRONT 20', REAR 10', SIDE 5'
MAXIMUM LOT COVERAGE:	3,300 SF PLUS 10% OF THE LOT AREA OVER 9,000 SF
HEIGHT:	30' ABOVE ABE
SEWAGE DISPOSAL:	NORTHSHORE UTILITY DISTRICT
WATER SYSTEM:	NORTHSHORE UTILITY DISTRICT

LEGAL DESCRIPTION

(PER CHICAGO TITLE INSURANCE COMPANY TITLE COMMITMENT NO. 0021553-06 DATED JULY 30, 2014)

THE PORTION OF LOTS 1 AND 2 OF KING COUNTY TESTAMENTARY DIVISION NO. L10M0004, RECORDED UNDER RECORDING NUMBER 20100405900009, IN KING COUNTY, WASHINGTON, DESCRIBED BY LOT A PER CITY OF KIRKLAND LOT LINE ALTERATION NO. LLA15-00982.

VERTICAL DATUM

NAVD 88 (USED FAST STATIC GPS OBSERVATIONS WITH OPUS SOLUTION)

CONTOUR INTERVAL = 2'

MERIDIAN

WASHINGTON STATE PLANE COORDINATE SYSTEM - NORTH ZONE (NAD83/91)

(PER WASHINGTON GEODETIC SURVEY CONTROL POINTS 182 (ID NO. 42444) AND 202 (ID NO. 43466)

BENCHMARKS

TBM - A: 1-3/4" BRASS DISC W/PUNCH 0.8' BELOW GRADE IN CASE AT CL AP OF 72ND AVE NE 49.5' N'LY OF SW PROPERTY COR.
EL 384.42

TBM - B: 1-3/4" BRASS DISC W/PUNCH 0.9' BELOW GRADE IN CASE AT CL INTX. OF 72ND AVE NE AND NE 126TH ST.
EL 362.12

EQUIPMENT & PROCEDURES

A 5" ELECTRONIC TOTAL STATION WAS USED FOR THIS FIELD TRAVERSE SURVEY. ACCURACY MEETS OR EXCEEDS W.A.C. 332-130-090.

REFERENCES

RECORD OF SURVEY AS RECORDED UNDER RECORDING NO. 20070424900013 IN BOOK 223 OF SURVEYS, PG 96 IN KING COUNTY, WA.

SHEET INDEX

1 CV-01 COVER SHEET
2 PU-01 PRELIMINARY UTILITY PLAN

LOT COVERAGE CALCULATIONS

LOT 1 AREA:	16,104 SF
MAX LOT COVERAGE 50%:	8,052 SF
MAXIMUM IMPERVIOUS COVERAGE PER HOLMES POINT OVERLAY:	4,010 SF
LOT 2 AREA:	13,797 SF
MAX LOT COVERAGE 50%:	6,898 SF
MAXIMUM IMPERVIOUS COVERAGE PER HOLMES POINT OVERLAY:	3,779 SF
LOT 3 AREA:	32,413 SF
MAX LOT COVERAGE 50%:	16,206 SF
MAXIMUM IMPERVIOUS COVERAGE PER HOLMES POINT OVERLAY:	5,641 SF
LOT 4 AREA:	13,262 SF
MAX LOT COVERAGE 50%:	6,631 SF
MAXIMUM IMPERVIOUS COVERAGE PER HOLMES POINT OVERLAY:	3,726 SF
LOT 5 AREA:	18,370 SF
MAX LOT COVERAGE 50%:	9,185 SF
MAXIMUM IMPERVIOUS COVERAGE PER HOLMES POINT OVERLAY:	4,237 SF
LOT 6 AREA:	10,851 SF
MAX LOT COVERAGE 50%:	5,425 SF
MAXIMUM IMPERVIOUS COVERAGE PER HOLMES POINT OVERLAY:	3,485 SF
LOT 7 AREA:	10,931 SF
MAX LOT COVERAGE 50%:	5,465 SF
MAXIMUM IMPERVIOUS COVERAGE PER HOLMES POINT OVERLAY:	3,493 SF
LOT 8 AREA:	10,995 SF
MAX LOT COVERAGE 50%:	5,497 SF
MAXIMUM IMPERVIOUS COVERAGE PER HOLMES POINT OVERLAY:	3,499 SF

PNA CALCULATIONS

LOT 1 AREA:	16,104 SF		LOT 5 AREA:	18,370 SF	
PNA AREA REQUIRED:	(25%) 4,026 SF		PNA AREA REQUIRED::	(25%) 4,593 SF	
PNA AREA PROVIDED:	4,315 SF		PNA AREA PROVIDED:	4,695 SF	
LOT 2 AREA:	13,797 SF		LOT 6 AREA:	10,851 SF	
PNA AREA REQUIRED::	(25%) 3,449 SF		PNA AREA REQUIRED::	(25%) 2,713 SF	
PNA AREA PROVIDED:	3,499 SF		PNA AREA PROVIDED:	2,761 SF	
LOT 3 AREA:	32,413 SF		LOT 7 AREA:	10,931 SF	
PNA AREA REQUIRED::	(25%) 8,103 SF		PNA AREA REQUIRED::	(25%) 2,733 SF	
PNA AREA PROVIDED:	8,310 SF		PNA AREA PROVIDED:	2,792 SF	
LOT 4 AREA:	13,262 SF		LOT 8 AREA:	10,995 SF	
PNA AREA REQUIRED::	(25%) 3,316 SF		PNA AREA REQUIRED::	(25%) 2,749 SF	
PNA AREA PROVIDED:	3,316 SF		PNA AREA PROVIDED:	2,773 SF	

FLOOR AREA RATIO CALCULATION

LOT 1 AREA:	16,104 SF	LOT 5 AREA:	18,370 SF
MAX FLOOR AREA RATIO:	50%	MAX FLOOR AREA RATIO:	50%
MAX LIVING AREA:	8,052 SF	MAX LIVING AREA:	9,185 SF
LOT 2 AREA:	13,797 SF	LOT 6 AREA:	10,851 SF
MAX FLOOR AREA RATIO:	50%	MAX FLOOR AREA RATIO:	50%
MAX LIVING AREA::	6,898 SF	MAX LIVING AREA:	5,425 SF
LOT 3 AREA:	32,413 SF	LOT 7 AREA:	10,931 SF
MAX FLOOR AREA RATIO:	50%	MAX FLOOR AREA RATIO:	50%
MAX LIVING AREA:	16,206 SF	MAX LIVING AREA:	5,465 SF
LOT 4 AREA:	13,262 SF	LOT 8 AREA:	10,995 SF
MAX FLOOR AREA RATIO:	50%	MAX LOT COVERAGE 50%:	50%
MAX LIVING AREA::	6,631 SF	MAX LIVING AREA:	5,497 SF

U. S. POSTAL SERVICE
APPROVED FOR MAILBOX LOCATION(S)

UNDERGROUND UTILITY NOTE

UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

BLUELINE
25 CENTRAL WAY - SUITE 400, KIRKLAND, WA 98033
P: 425.216.4051 F: 425.216.4052
WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED
PROJECT MANAGER: TODD A. OBERG, PE
PROJECT ENGINEER: TODD A. OBERG
DESIGNER: JUSTIN H. RODDA
ISSUE DATE: 8/20/2015

NO	DATE	BY	REVISIONS
1	8/20/15	JHR	REVISED PER MEETING WITH CITY ARBORIST

COVER SHEET

MACDONALD ESTATES
SHORT PLAT
PARCEL #4055700825
CITY OF KIRKLAND WASHINGTON

TODD A. OBERG STATE OF WASHINGTON 37408 REGISTERED PROFESSIONAL ENGINEER

8/20/15

JOB NUMBER: 14-024
SHEET NAME: CV-01
SHT 1 OF 2

22x34
8/20, 2015 - 11:15pm - User: JRodda
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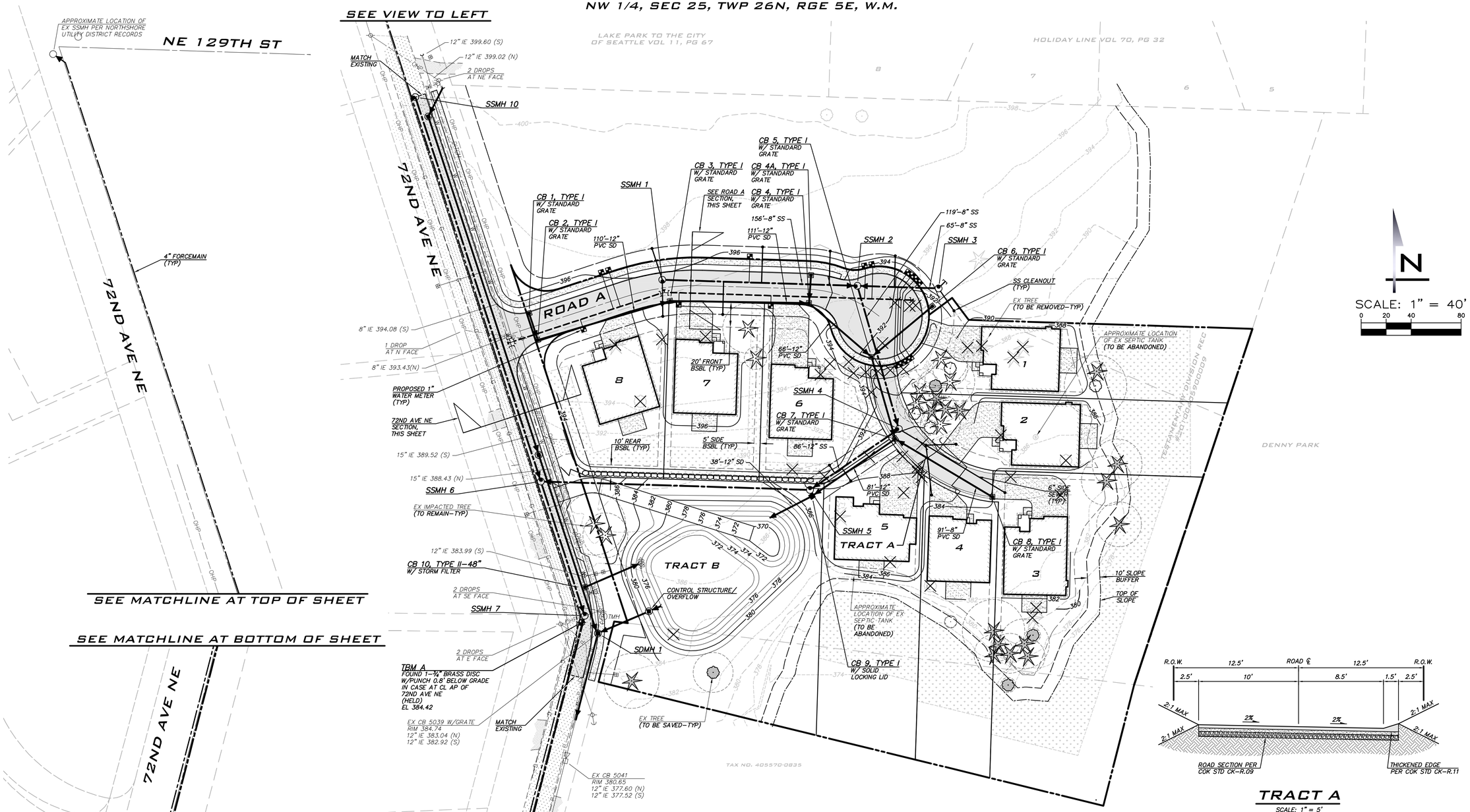
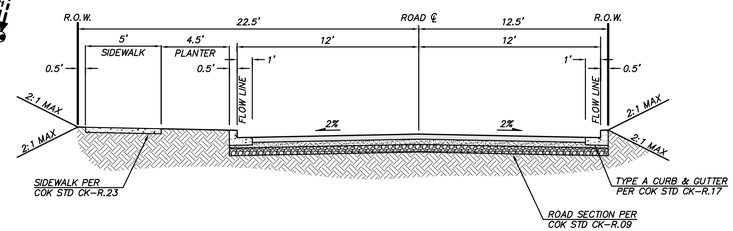
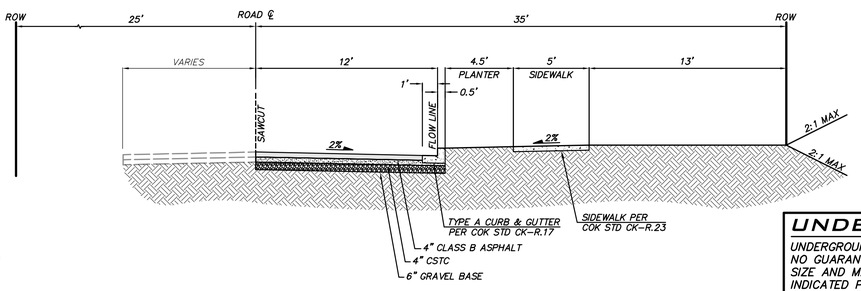
NW 1/4, SEC 25, TWP 26N, RGE 5E, W.M.



TRACT A
SCALE: 1" = 5'



ROAD A
SCALE: 1" = 5'



NE 124TH STREET
SCALE: 1" = 5'

UNDERGROUND UTILITY NOTE

UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

BLUELINE
25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033
P: 425.216.8081 F: 425.216.8082
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SCALE: AS NOTED
PROJECT MANAGER: TODD A. OBERG, PE
PROJECT ENGINEER: TODD A. OBERG
DESIGNER: JUSTIN H. RODDA
ISSUE DATE: 8/20/2015

NO	DATE	BY	REVISIONS
1	8/20/15	JHR	REVISED PER MEETING WITH CITY ARBORIST

PRELIMINARY UTILITY PLAN
MACDONALD ESTATES
SHORT PLAT
PARCEL #4055700825
CITY OF KIRKLAND WASHINGTON

8/20/15

JOB NUMBER: 14-024
SHEET NAME: PU-01
SHT 2 OF 2

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22:34
August 20, 2015 - 2:27pm - User: JRodda
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SEE SHEET L-3 ENLARGED PLANTING PLAN FOR TYPICAL PROTECTED NATURAL AREA

SLOPED AREA, EXISTING TREES TO BE RETAINED

TOE OF SLOPE

NORTH SHORT PLAT
SOUTH SHORT PLAT

NORTH SHORT PLAT
SOUTH SHORT PLAT

SLOPED AREA, EXISTING TREES TO BE RETAINED

TOE OF SLOPE

TOE OF SLOPE

SLOPED AREA, EXISTING TREES TO BE RETAINED

SLOPED AREA, EXISTING TREES TO BE RETAINED

LEGEND

- EXISTING IMPACTED EVERGREEN TREE
- EXISTING IMPACTED DECIDUOUS TREE
- EXISTING EVERGREEN TREE TO BE RETAINED
- EXISTING DECIDUOUS TREE TO BE RETAINED
- EXISTING DECIDUOUS TREE TO BE REMOVED
- EXISTING EVERGREEN TREE TO BE REMOVED
- DRIP LINE, TYPICAL
- PROPOSED PROTECTED NATURAL AREA ON EXISTING STEEP SLOPES, NO WORK IS PROPOSED FOR THESE AREAS, EXISTING VEGETATION TO REMAIN

TREE RETENTION

ONLY SIGNIFICANT TREES WITHIN WORK LIMITS ARE NOTED. ALL EXISTING SIGNIFICANT TREES WITHIN WORK LIMITS ARE PROPOSED TO BE REMOVED. SEE ARBORIST REPORT FOR ADDITIONAL INFORMATION

TREE CREDIT CALCULATIONS

MINIMUM VEGETATION CONDITIONS IN THE PROTECTED NATURAL AREA, PER HOMES POINT OVERLAY 70.15 (4)(a) (1)

TOTAL SITE AREA: 6.35 ACRES, OF WHICH 1.59 ACRES IS REQUIRED FOR PNA* (25% OF TOTAL)
1.59 ACRES x 150 TREE CREDITS/ ACRE = 238.5 TREE CREDITS
4.76 ACRES x 30 TREE CREDITS/ ACRE = 142.8 TREE CREDITS
381.3 TREE CREDITS REQUIRED

PNA: PROTECTED NATURAL AREA

AVAILABLE TREE DENSITY CREDIT

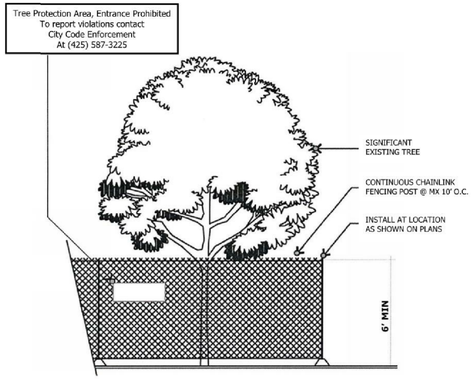
RETAINED SURVEYED TREES:	192
RETAINED SLOPE TREES:	462
SUBTRACT "IMPACTED" TREES	-19
TOTAL AVAILABLE TREE DENSITY CREDIT:	635

MINIMUM REQUIRED TREE DENSITY CREDIT

PNA	238.5
OTHER AREA:	142.8
TOTAL PROJECT AREA:	382

SURPLUS TREE DENSITY CREDITS: 635 - 382 = 253

NOTE: DURING CONSTRUCTION, IT WILL BE DETERMINED IF THE IMPACTED TREES WILL BE RETAINED



1. MINIMUM SIX (6) FOOT HIGH TEMPORARY CHAINLINK FENCE SHALL BE PLACED AT THE CRITICAL ROOT ZONE OR DESIGNATED LIMIT OF DISTURBANCE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE TREE(S). INSTALL FENCE POSTS USING PIER BLOCK ONLY. AVOID POST OR STAKES INTO MAJOR ROOTS. MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING AND COVERED WITH SOIL AS SOON AS POSSIBLE.
3. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.
4. FENCING SIGNAGE AS DETAILED ABOVE MUST BE POSTED EVERY FIFTEEN (15) FEET ALONG THE FENCE.

TREE PROTECTION FENCING DETAIL
(for public and private trees)

NORTH

0 30 60 120
1" = 30'-0" 22"x34" SHEET SIZE

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	8.19.15	REVISED PER CITY	JMV

DRAWING DATE 6.24.14

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
JEFF M. VARLEY
CERTIFICATE No. 774

VARLEY•VARLEY landscape architect
JEFF VARLEY
12745 NE 170th Lane Woodinville, Washington 98072
email varleyjeff@hotmail.com phone 425-486-9430
www.varleylandscape.com

MacDONALD PLAT
LANDSCAPE and TREE RETENTION SET
TREE RETENTION PLAN

JOB NUMBER:	
DRAWING NAME:	
DESIGNER:	JMV
DRAFTING BY:	JMV
DATE:	6-24-15
SCALE:	AS SHOWN
JURISDICTION:	KIRKLAND

L-1
SHEET 1 of 5

TREE INVENTORY

Table No. 1. Tree Inventory

Tree No.	DBH	Species	Dripline	Health	Structure	Viable Tree?	Visible Defects/Notes
1000	10"	Plum	8'	3	3	No	Diseased, mal-pruned
1001	10	Apple	10	2	2	Yes	Diseased
1002	(10) 6-12	Mt. Ash	16	1	2	Yes	Asymmetric canopy, multiple leaders
1003	18	Western red-cedar	12	3	2	No	Decline, girdling roots. Flagged 5403
1004	8	Leyland cypress	6	1	1	Yes	
1005	8	Leyland cypress	7	1	1	Yes	
1006	9	Leyland cypress	7	1	1	Yes	
1007	7	Leyland cypress	6	1	1	Yes	
1009	19	European birch	16	1	1	Yes	
1010	9	Mt. hemlock	6	1	2	Yes	Low LCR
1011	8,12	Thread cypress	8	1	1	Yes	
1012	(4) 10	Thread cypress	8	1	1	Yes	
1013	12	Apple	10	1	1	Yes	
1015	6	Leyland cypress	6	1	1	Yes	
5223	27	Apple	20	1	1	Yes	
5224	24	Apple	22	1	1	Yes	
5283	20,26	Deodar cedar	25	1	2	Yes	Double leader, asymmetric canopy
5284	23	Blue spruce	9	2	2	Yes	Aphid insect injury, Low LCR
5285	40	Douglas-fir	20	1	1	Yes	
5286	68	Giant sequoia	25	1	1	Yes	
5287	51	Western red-cedar	24	1	1	Yes	
5288	40	Douglas-fir	22	1	1	Yes	
5312	25	Douglas-fir	18	1	2	Yes	Asymmetric canopy
5313	61	Douglas-fir	25	1	1	Yes	
5314	46	Pacific madrone	20	2	2	Yes	Diseased, deadwood
5315	15,17,20	Pacific madrone	16	2	3	No	Diseased, trunk decay, deadwood
5316	45	Douglas-fir	22	1	1	Yes	
5317	49	Pacific madrone	30	2	2	Yes	Diseased, deadwood
5318	75	Giant sequoia	25	1	1	Yes	
5437	10	Blue spruce	7	2	1	Yes	Thin canopy
5456	24	Western red-cedar	16	1	2	Yes	Double leader
5470	31	Douglas-fir	18	1	1	Yes	
5471	24	Douglas-fir	16	1	1	Yes	
5473	12	English holly	8	3	1	No	Foliar disease
5479	12	Norway spruce	9	1	1	Yes	
5486	15	Douglas-fir	10	1	1	Yes	
5487	12	Pink dogwood	14	2	1	Yes	
5488	29	Deodar cedar	22	1	1	Yes	
5491	33	Western red-cedar	20	1	1	Yes	
5492	21	Incense cedar	10	1	1	Yes	
5493	16,12,17,22	Incense cedar	16	1	2	Yes	Multiple leaders
5526	45	Douglas-fir	18	1	1	Yes	
5530	36	Douglas-fir	16	1	1	Yes	
5536	15	Hinoki cypress	8	1	1	Yes	
5537	12,18,18,18	Katsura	25	1	2	Yes	Multiple leaders
5545	25	Red maple	22	1	1	Yes	
5551	17,23,27	Incense cedar	16	1	2	Yes	Multiple leaders
5552	28	Douglas-fir	20	1	1	Yes	
5553	37	Douglas-fir	20	1	1	Yes	
5557	34	Douglas-fir	18	1	1	Yes	
5570	17	Pacific madrone	6	3	3	No	Ivy covered, nearly dead
5573	17	Western hemlock	14	1	1	Yes	
5574	19	Douglas-fir	16	1	1	Yes	
5575	38	Western red-cedar	20	1	1	Yes	
5579	40	Douglas-fir	25	1	1	Yes	
5580	15	Chamaecyparis	12	2	1	Yes	Thin canopy
5581	11	Tupelo	9	1	1	Yes	
A	9	Pear	8	3	2	No	Diseased
B	8	Grand fir	5	1	1	Yes	
C	9	Alaska cedar	4	1	1	Yes	
D	10	Scots pine	8	2	1	Yes	Low LCR
E	11	Scots pine	8	2	1	Yes	Low LCR
F	10,12	Portugal laurel	14	2	1	Yes	Suppressed
G	10,13	Portugal laurel	14	2	1	Yes	Suppressed
H	10	Western red-cedar	6	2	1	Yes	Suppressed
I	6	Chamaecyparis	4	3	2	No	Decline
J	8	Hinoki cypress	4	2	1	Yes	Asymmetric canopy
K	10	Hollywood juniper	6	2	2	Yes	Asymmetric canopy
L	11	Hollywood juniper	6	2	2	Yes	Asymmetric canopy
M	7	Kousa dogwood	6	1	1	Yes	
N	10	Pacific dogwood	4	2	3	No	Trunk decay
O	8	European birch	5	1	3	No	Lean in trunk
P	9	Douglas-fir	6	1	2	Yes	Suppressed
Q	8	Pacific dogwood	6	1	1	Yes	
R	8	Spruce	4	3	1	No	Decline

TREE DATA SOURCE: GREENFOREST INCORPORATED REPORT, DATED 6-16-2015, REV. 8-19-2015

RETAINED AND IMPACTED TREES

RETAINED & IMPACTED TREES

31 surveyed trees are to be preserved and protected on the developed portion of the site. They are shown on the attached plan and are listed in the table below. These trees are divided into two groups: *Retained* and *Impacted*. Retained trees are protected by City code and their retention is mandatory. Impacted trees are significant trees to be preserved and protected during construction, though proposed disturbances near their root zones that may require removal.

In addition to the retained trees listed below, all the viable significant trees growing on the slopes will be retained.

Table No. 2. Retained & Impacted Trees

Impacted or Retained	Tree No.	DBH	Species
Impacted	5284	23"	Blue spruce
Impacted	5285	40	Douglas-fir
Impacted	5312	25	Douglas-fir
Impacted	5313	61	Douglas-fir
Retained	5315	15,17,20	Pacific madrone
Retained	5316	45	Douglas-fir
Retained	5456	24	Western red-cedar
Impacted	5470	31	Douglas-fir
Impacted	5471	24	Douglas-fir
Impacted	5473	12	English holly
Impacted	5488	29	Deodar cedar
Impacted	5491	33	Western red-cedar
Retained	5492	21	Incense cedar
Impacted	5493	16,12,17,22	Incense cedar
Retained	5536	15	Hinoki cypress
Impacted	5537	12,18,18,18	Katsura
Retained	5552	28	Douglas-fir
Retained	5553	37	Douglas-fir
Retained	5557	34	Douglas-fir
Retained	5570	17	Pacific madrone
Retained	5573	17	Western hemlock
Retained	5574	19	Douglas-fir
Retained	5575	38	Western red-cedar
Retained	5579	40	Douglas-fir
Impacted	F	10,12	Portugal laurel
Retained	G	10,13	Portugal laurel
Retained	H	10	Western red-cedar
Retained	I	6	Chamaecyparis
Retained	P	9	Douglas-fir
Retained	Q	8	Pacific dogwood
Retained	R	8	Spruce

RETAINED TREES WITHIN LIMITS OF DISTURBANCE

Table No. 3. Limits of Disturbance

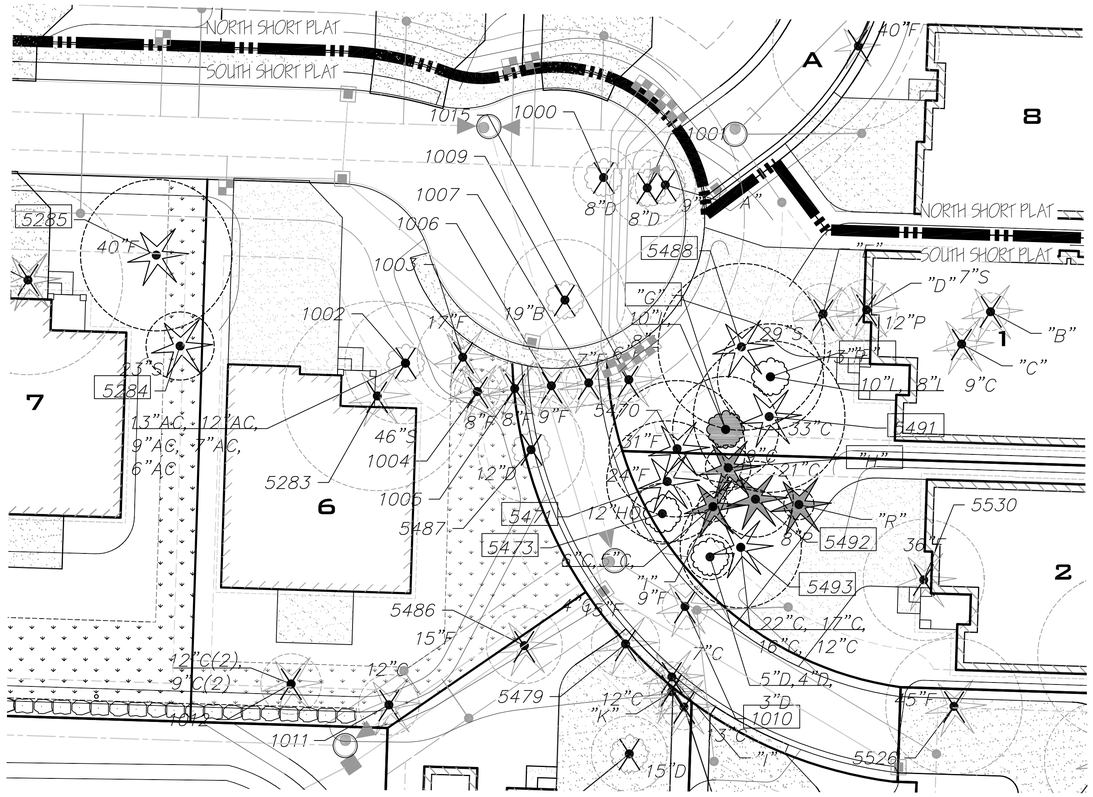
Tree No.	DBH	Species	DL	Limits of Disturbance N	E	S	W
5284	23"	Blue spruce	9'	12'	12'	12'	12'
5285	40	Douglas-fir	20	DL	DL	DL	DL
5315	15,17,20	Pacific madrone	16	DL	DL	PL	5316
5316	45	Douglas-fir	22	DL	5315	PL	DL
5456	24	Western red-cedar	16			TOS	TOS
5470	31	Douglas-fir	18	DL		DL	14
5471	24	Douglas-fir	16	DL		DL	8
5473	12	English holly	8	DL		DL	4
5488	29	Deodar cedar	22	10	DL		DL
5491	33	Western red-cedar	20		DL		
5492	21	Incense cedar	10				
5493	16,12,17,22	Incense cedar	16		DL	DL	DL
5536	15	Hinoki cypress	8	DL	TOS	DL	DL
5537	12,18,18,18	Katsura	25	DL	TOS	DL	15
5552	28	Douglas-fir	20	DL	TOS	DL	DL
5553	37	Douglas-fir	20	DL	TOS	DL	DL
5557	34	Douglas-fir	18	DL	TOS	DL	DL
5570	17	Pacific madrone	6	15	15	TOS	TOS
5573	17	Western hemlock	14		DL		
5574	19	Douglas-fir	16		DL		
5575	38	Western red-cedar	20		DL		
5579	40	Douglas-fir	25	DL			
5580	15	Chamaecyparis	12				
5581	11	Tupelo	9	7	DL		
F	10,12	Portugal laurel	14		DL		
G	10,13	Portugal laurel	14				
H	10	Western red-cedar	6				
I	6	Chamaecyparis	4				
O	8	European birch	5	DL			DL
P	9	Douglas-fir	6				
Q	8	Pacific dogwood	6				
R	8	Spruce	4		6		

(PL=property line, DL = dripline, TOS= top of slope)

TALLY OF SIGNIFICANT TREES ON SLOPE

Attachment No. 2 – Talley of Significant Trees on Slope (With Available Tree Density Credit)

Tree Count	Alder	Credit	Cotton-wood	Credit	Madrone	Credit	Maple	Credit	Fir	Credit	Cedar	Credit	Hawthorn	Credit
1	8"	1	16"	4	10"	1	6"	1	8"	1	8"	1	10"	1
2	8	1			12	2	6	1	10	1	8	1		
3	8	1			16	6	10	1	10	1	10	1		
4	6	1			16	6	12	2	10	1	10	1		
5	6	1			18	5	16	4	14	6	10	1		
6	8	1			22	7	16	4	14	6	12	2		
7	8	1			28	10	18	5	16	4	12	2		
8	10	1					18	5	16	4	12	2		
9	10	1					18	5	16	4	12	2		
10	10	1					20	6	16	4	12	2		
11	12	2					20	6	16	4	12	2		
12	12	2					20	6	16	4	14	3		
13	12	2					22	7	18	5	14	3		
14	14	6					24	8	18	5	14	3		
15	14	6					28	10	18	5	16	4		
16	14	6					10,10	1	18	5	16	4		
17	14	6					18,20,22	6	20	6	24	8		
18	15	6					20,12	4	20	6	26	9		
19	15	6					20,20	6	20	6				
20	16	4					24,24,24	8	20	6				
21	16	4							20	6				
22	18	5							22	7				
23	18	5							22	7				
24	18	5							22	7				
25	18	5							24	8				
26	18	5							24	8				
27									24	8				
28									26	9				
29									28	10				
30									28	10				
31									30	11				
32									34	13				
	26		1		7		20		32		18		1	105
Credits		85		4		37		96		188		51	1	462



ENLARGED TREE RETENTION PLAN

1" = 10'-0" 22"x34" SHEET SIZE

REVISIONS			
NO.	DATE	DESCRIPTION	BY
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		DRAWING DATE 6.24.14	

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
JEFF M. VARLEY
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MacDONALD PLAT

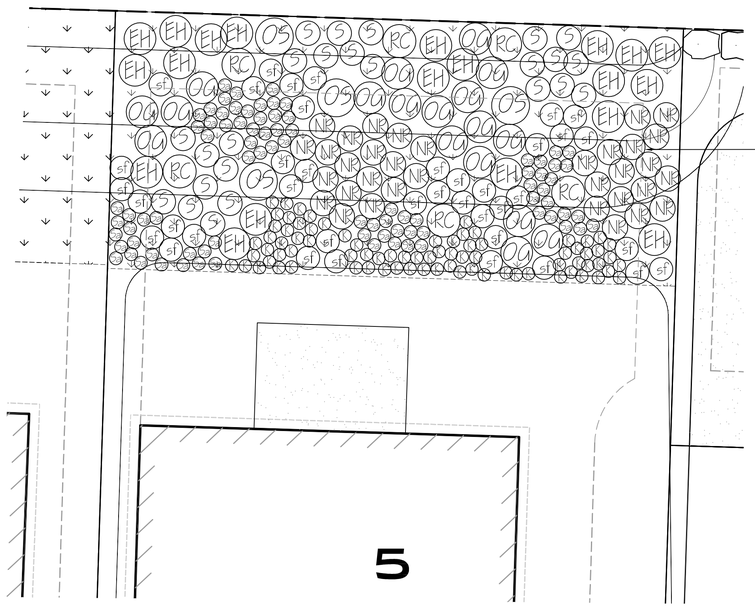
LANDSCAPE and TREE RETENTION SET

TREE INVENTORY & ENLARGED TREE RET. PLAN

JOB NUMBER:	
DRAWING NAME:	
DESIGNER:	JMV
DRAFTING BY:	JMV
DATE:	6-24-15
SCALE:	AS SHOWN
JURISDICTION:	KIRKLAND

L-2

SHEET 2 of 5



PLANT LAYOUT FOR TYPICAL BUILDING LOT COMPRISED OF APPROXIMATELY 2,550 SQUARE FEET. SEE NOTE IN PLANT SCHEDULE FOR BUILDING LOTS THAT HAVE MORE THAN 2,550 SQUARE FEET OF PROTECTED NATURAL AREA

PLANTING PLAN FOR TYPICAL BUILDING LOT PROTECTED NATURAL AREA

PLANT SCHEDULE - PROTECTED NATURAL AREAS

	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QUANTITY*	REMARKS
	SHRUBS and GROUND COVER					
RC	Ribes sanguineum	Red Flowering Currant	2 gal	48" o.c.	6	Full and Matching
OG	Mahonia aquifolium	Oregon Grape	2 gal	48" o.c.	18	Full and Matching
SF	Polystichum munitum	Sword Fern	2 gal	36" o.c.	39	Full and Matching
EH	Vaccinium ovatum	Evergreen Huckleberry	2 gal	48" o.c.	20	Full and Matching
S	Symphoricarpos albus	Snowberry	2 gal	36" o.c.	24	Full and Matching
OS	Holodiscus discolor	Oceanspray	2 gal	60" o.c.	4	Full and Matching
NR	Rosa nutkana	Nootka Rose	2 gal	36" o.c.	34	Full and Matching
SL	Gaultheria shallon	Salal	1 gal	18" o.c.	84	Full and Matching
K	Arctostaphylos uva-ursi	Kinnikinnik	1 gal	18" o.c.	80	Full and Matching

On-center spacing reflects minimum spacing for proposed planting. See sheet L-3 for tupical planting details.
*Quantities listed are for a tupical 2,550 square foot area. Landscape contractor to determine each building lot's actual square footage of Protected Natural Area. For building lots that have more than 2,550 square feet of Protected Natural Area, the additional square footage shall be planted with Sword Fern, Salal, and Kinnikinnik

No replacement trees are proposed for the Protected Natural Areas because Tree Credit Density requirements have been met with existing trees located on existing slopes on the eastern portion of the site. See Sheet L-1 for locations.

95.50 Installation Standards for Required Plantings

All required trees and landscaping shall be installed according to sound horticultural practices in a manner designed to encourage quick establishment and healthy plant growth. All required landscaping shall be installed in the ground and not in above-ground containers, except for landscaping required on the top floor of a structure.

When an applicant proposes to locate a subterranean structure under required landscaping that appears to be at grade, the applicant will: (1) provide site-specific documentation prepared by a qualified expert to establish that the design will adequately support the long-term viability of the required landscaping; and (2) enter into an agreement with the City, in a form acceptable to the City Attorney, indemnifying the City from any damage resulting from development activity on the subject property which is related to the physical condition of the property. The applicant shall record this agreement with the King County Department of Elections and Records.

1. Compliance. It is the applicant's responsibility to show that the proposed landscaping complies with the regulations of this chapter.

2. Timing. All landscaping shall be installed prior to the issuance of a certificate of occupancy, except that the installation of any required tree or landscaping may be deferred during the summer months to the next planting season, but never for more than six (6) months. Deferred installation shall be secured with a performance bond pursuant to Chapter 175 KZC prior to the issuance of a certificate of occupancy.

3. Grading. Berms shall not exceed a slope of two (2) horizontal feet to one (1) vertical foot (2:1).

4. Soil Specifications. Soils in planting areas shall have adequate porosity to allow root growth. Soils which have been compacted to a density greater than one and three-tenths (1.3) grams per cubic centimeters shall be loosened to increase aeration to a minimum depth of 24 inches or to the depth of the largest plant root ball, whichever is greater. Imported topsoils shall be tilled into existing soils to prevent a distinct soil interface from forming. After soil preparation is completed, motorized vehicles shall be kept off to prevent excessive compaction and underground pipe damage. The soil quality in any landscape area shall comply with the soil quality requirements of the Public Works Pre-Approved Plans. See subsection (9) of this section for mulch requirements.

5. Plant Selection.
a. Plant selection shall be consistent with the Kirkland Plant List, which is produced by the City's Natural Resource Management Team and available in the Department of Planning and Community Development.

b. Plants shall be selected and sited to produce a hardy and drought-resistant landscape area. Selection shall consider soil type and depth, the amount of maintenance required, spacing, exposure to sun and wind, the slope and contours of the site, and compatibility with existing native vegetation preserved on the site. Preservation of existing vegetation is strongly encouraged.

c. Prohibited Materials. Plants listed as prohibited in the Kirkland Plant List are prohibited in required landscape areas. Additionally, there are other plants that may not be used if identified in the Kirkland Plant List as potentially damaging to sidewalks, roads, underground utilities, drainage improvements, foundations, or when not provided with enough growing space.

d. All plants shall conform to American Association of Nurserymen (AAN) grades and standards as published in the "American Standard for Nursery Stock" manual.

e. Plants shall meet the minimum size standards established in other sections of the KZC.

f. Multiple-stemmed trees may be permitted as an option to single-stemmed trees for required landscaping provided that such multiple-stemmed trees are at least 10 feet in height and that they are approved by the Planning Official prior to installation.

6. Fertilization. All fertilizer applications to turf or trees and shrubs shall follow Washington State University, National Arborist Association or other accepted agronomic or horticultural standards.

7. Irrigation. The intent of this standard is to ensure that plants will survive the critical establishment period when they are most vulnerable due to lack of watering. All required plantings must provide an irrigation system, using either Option 1, 2, or 3 or a combination of those options. For each option irrigation shall be designed to conserve water by using the best practical management techniques available. These techniques may include, but not be limited to: drip irrigation to minimize evaporation loss, moisture sensors to prevent irrigation during rainy periods, automatic controllers to insure proper duration of watering, sprinkler head selection and spacing designed to minimize overspray, and separate zones for turf and shrubs and for full sun exposure and shady areas to meet watering needs of different sections of the landscape.

Exceptions, as approved by the Planning Official, to the irrigation requirement may be approved xeriscape (i.e., low water usage plantings), plantings approved for low impact development techniques, established indigenous plant material, or landscapes where natural appearance is acceptable or desirable to the City. However, those exceptions will require temporary irrigation (Option 2 and/or 3) until established.
a. Option 1. A permanent built-in irrigation system with an automatic controller designed and certified by a licensed landscape architect as part of the landscape plan.

b. Option 2. An irrigation system designed and certified by a licensed landscape architect as part of the landscape plan, which provides sufficient water to ensure that the plants will become established. The system does not have to be permanent if the plants chosen can survive adequately on their own, once established.

c. Option 3. Irrigation by hand. If the applicant chooses this option, an inspection will be required one (1) year after final inspection to ensure that the landscaping has become established.

8. Drainage. All landscapes shall have adequate drainage, either through natural percolation or through an installed drainage system. A percolation rate of one-half (1/2) inch of water per hour is acceptable.

9. Mulch.
a. Required plantings, except turf or areas of established ground cover, shall be covered with two (2) inches or more of organic mulch to minimize evaporation and runoff. Mulch shall consist of materials such as yard waste, sawdust, and/or manure that are fully composted.

b. All mulches used in planter beds shall be kept at least six (6) inches away from the trunks of shrubs and trees.

10. Protection. All required landscaped areas, particularly trees and shrubs, must be protected from potential damage by adjacent uses and development, including parking and storage areas. Protective devices such as bollards, wheel stops, trunk guards, root guards, etc., may be required in some situations.

11. Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers. Plants intended to mitigate for the loss of natural resource values are subject to the following requirements in addition to the other landscaping requirements found in KZC 95.40 through 95.45. Where these requirements conflict with other requirements of this chapter, these requirements take precedence. Refer to Chapters 85 and 90 KZC for additional requirements for these areas.
a. Plant Source. Plant materials must be native and selected from the Kirkland Plant List. Seed source must be as local as possible, and plants must be nursery propagated unless transplanted from on-site areas approved for disturbance. These requirements must be included in the Mitigation Plan specifications.

b. Installation. Plant materials must be supported only when necessary due to extreme winds at the planting site. Where support is necessary, stakes, guy wires, or other measures must be removed as soon as the plant can support itself, usually after the first growing season. All fertilizer applications to turf or trees and shrubs shall follow Washington State University, National Arborist Association or other accepted agronomic or horticultural standards.

c. Fertilizer Applications. Fertilizers shall be applied in such a manner as to prevent its entry into waterways and wetlands and minimize its entry into storm drains. No applications shall be made within 50 feet of a waterway or wetland, or a required buffer as established by the City codes (such as Chapter 90 KZC) or Kirkland Shoreline Master Program (SMP, KMC Title 24), whichever is greater, unless specifically authorized in an approved mitigation plan or otherwise authorized in writing by the Planning Official.

NORTH

0 10 20 40

1" = 10'-0" 22"x34" SHEET SIZE

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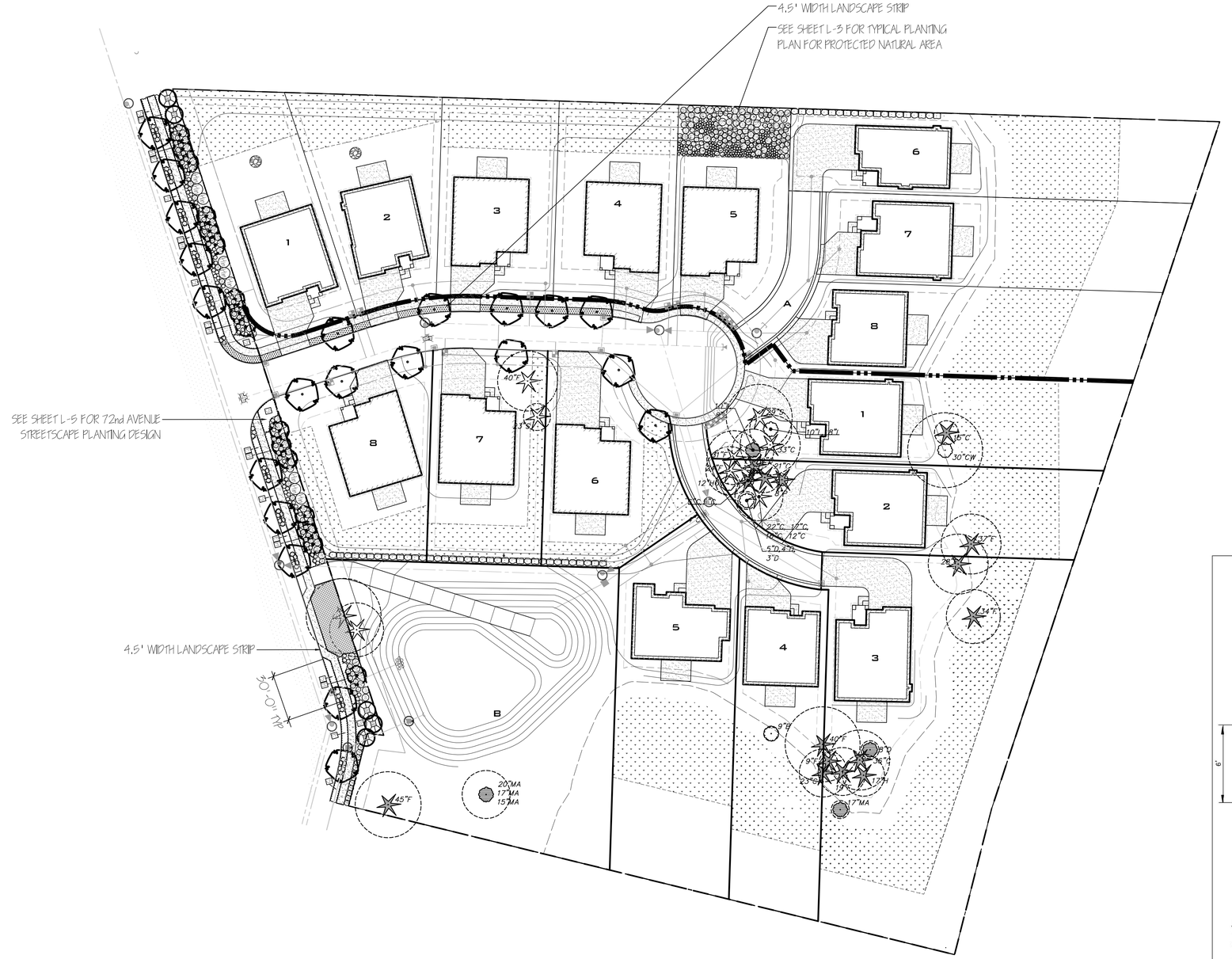
MacDONALD PLAT
LANDSCAPE and TREE RETENTION SET
PROTECTED NATURAL AREA PLANTINGS

JOB NUMBER:	
DRAWING NAME:	
DESIGNER:	JMV
DRAFTING BY:	JMV
DATE:	6-24-15
SCALE:	AS SHOWN
JURISDICTION:	KIRKLAND

L-3



STREET TREE PLAN

LEGEND

PROPOSED PROTECTED NATURAL AREA ON EXISTING STEEP SLOPES. NO WORK IS PROPOSED FOR THESE AREAS. EXISTING VEGETATION TO REMAIN

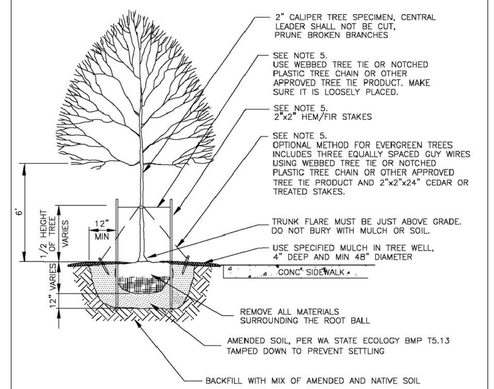
STREET TREE PLANT SCHEDULE

BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	REMARKS
TREES				
Styrax Japonica	Japanese Snowbell	2" cal	22	Full and Matching

Street trees planted 30' on-center where space allows to avoid conflicts with utilities and driveways

Lawn installed in all the plat's interior landscape strips, tupical

LAST REVISED: 1/15/14



NOTE

1. WIDTH OF PLANTING PIT SHALL BE 3 TIMES LARGER THAN ROOT BALL.
2. FOR DECIDUOUS TREES, 2" CALIPER MINUMUM AND BRANCHING STARTS 5' ABOVE GRADE (UNLESS OTHER APPROVED BY CITY).
3. FOR PLANTING DISTANCES NEAR INTERSECTIONS AND DRIVEWAYS, REFER TO PRE-APPROVED PLANS NOTEBOOK.
4. TREES SHALL NOT BE PLANTED WITHIN 10' OF ANY UG UTILITY ACCESS, WHICH MAY BE LOCATED IN THE PLANTER STRIP OR ADJACENT SIDEWALK.
5. STAKE ONLY WHEN NECESSARY OR IF REQUIRED BY THE CITY; INCLUDE TIMELINE FOR REMOVAL OF STAKES AND TIES.

CITY OF KIRKLAND

PLAN NO. CK-R.48

TYPICAL TREE PLANTING DETAIL

NORTH

0 20 40 80

1" = 20'-0" 22"x34" SHEET SIZE

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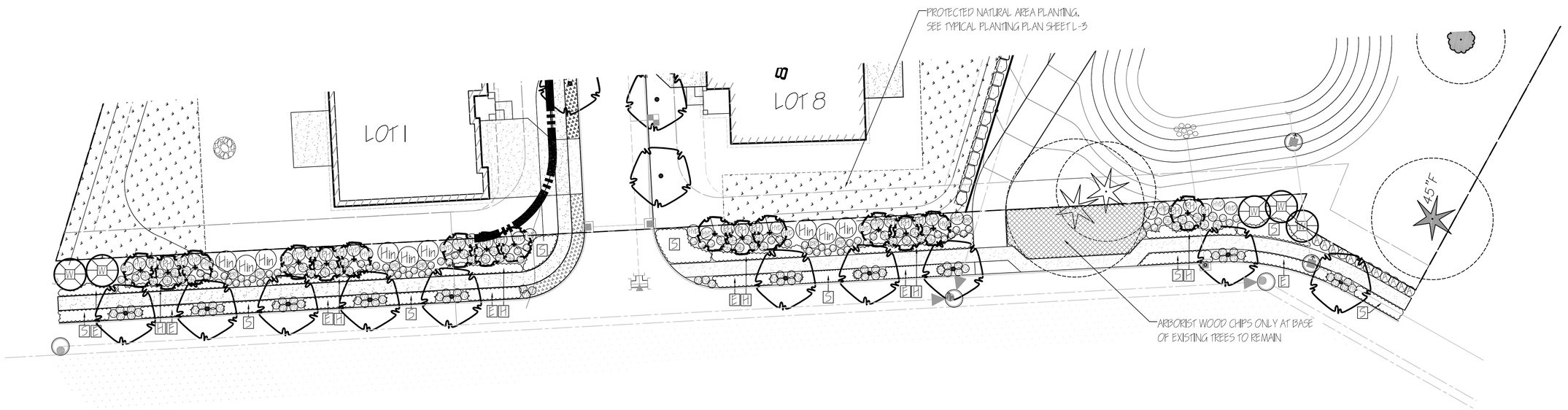
MacDONALD PLAT
LANDSCAPE and TREE RETENTION SET
72nd AVENUE STREETSCAPE

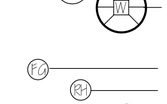
JOB NUMBER:	
DRAWING NAME:	
DESIGNER:	JMV
DRAFTING BY:	JMV
DATE:	6-24-15
SCALE:	AS SHOWN
JURISDICTION:	KIRKLAND

L-4

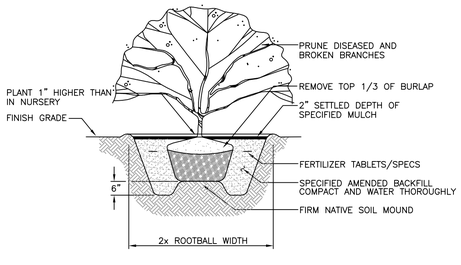


PLANTING PLAN 72nd AVENUE STREETSCAPE

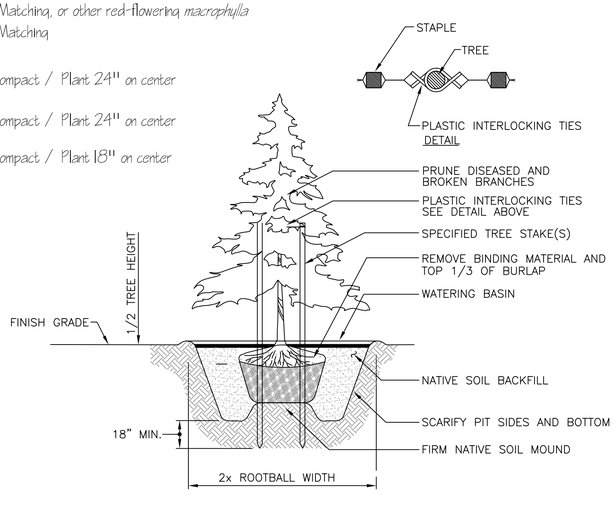
PLANT SCHEDULE - 72nd AVE NE



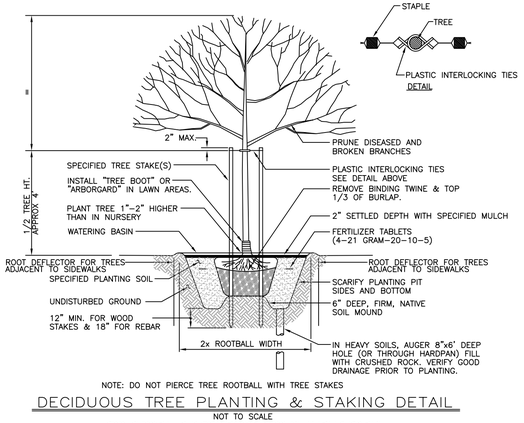
	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	REMARKS
	TREES				
	Styrax japonica	Japanese Snowbell	Street tree. See sheet L-4 for more information		
W	Cercis canadensis 'Forest Pansy'	Eastern Redbud	1-3/ 4" cal	16	Full and Matching
Hin	Chamaecyparis obtusa 'Aurea'	Gidden Hinoki Cypress	7' height	9	Full and Matching
	Thuja plicata 'Excelsa'	Columnar Western Red Cedar	6'-7' ht	5	Full and Matching
	SHRUBS and GROUND COVER				
Fo	Pennisetum alop. 'Hameln'	Fountain Grass	2 gal	66	Full and Matching
RH	Rhododendron 'Boule de Neige'	Rhodie	24"-32" ht	18	Full and Matching, or other shade tolerant white-flowering variety
La	Lavandula stoechas 'Anouk Deep Rose'	Spanish Lavender	2 gal	30	Full and Matching
A	Thuja occidentalis 'Smaragd'	'Emerald Green' Arborvitae	5'-6' ht	12	Full and Matching
Ca	Carex morrowii 'Ice Dance'	Sedge	1 gallon	36	Full and Matching
Sx	Sarcococca humilis 'Fragrant Valley'	Sweetbox	2 gal	48	Full and Matching
HM?	Hydrangea macrophylla 'Lady in Red'	Big Leaf Hydrangea	5 gal	24	Full and Matching, or other red-flowering *macrophylla*
BR	Berberis thunbergii 'Helmond Pillar'	Columnar Redleaf Barberry	21" ht	7	Full and Matching
E	Euonymus fortunei 'Gold Splash'	Euonymus	1 gallon		Full / Compact / Plant 24" on center
S	Calluna vulgaris 'Spring Torch'	Heather	1 gal		Full / Compact / Plant 24" on center
H	Heuchera 'Georgia Peach'	Coral Bells	1 gal		Full / Compact / Plant 18" on center
	3"-4" depth arborist wood chip mulch				



SHRUB PLANTING DETAIL
NOT TO SCALE



CONIFERUOUS TREE PLANTING & STAKING DETAIL
NOT TO SCALE



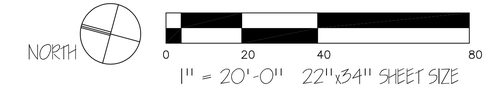
NOTE: DO NOT PIERCE TREE ROOTBALL WITH TREE STAKES

DECIDUOUS TREE PLANTING & STAKING DETAIL
NOT TO SCALE

SEE SHEET L-3 FOR STREET TREE PLANTING DETAIL

LANDSCAPE NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL OTHER SITE IMPROVEMENTS AND CONDITIONS PRIOR TO STARTING LANDSCAPE WORK.
2. CONTRACTOR SHALL USE CAUTION WHILE EXCAVATING TO AVOID DISTURBING ANY UTILITIES ENCOUNTERED. CONTRACTOR IS TO PROMPTLY ADVISE OWNER OF ANY DISTURBED UTILITIES. LOCATION SERVICE PHONE 1-800-424-5555
3. CONTRACTOR SHALL MAINTAIN AND WATER ALL PLANT MATERIAL FOR 1 YEAR OR UNTIL FINAL INSPECTION AND ACCEPTANCE BY OWNER.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPUTING SPECIFIC QUANTITIES OF GROUND COVERS AND PLANT MATERIALS UTILIZING ON-CENTER SPACING FOR PLANTS AS STATED ON THE LANDSCAPE PLAN AND MINIMUM PLANTING DISTANCES AS SPECIFIED BELOW IN THESE NOTES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE QUANTITIES OF PLANTS THAT ARE REPRESENTED BY SYMBOLS ON THE DRAWINGS.
6. SUBGRADE IS TO BE WITHIN 1/10" OF ONE FOOT AS PROVIDED BY OTHERS. ALL PLANTING AREAS TO BE CLEARED OF ALL CONSTRUCTION MATERIAL AND ROCKS AND STICKS LARGER THAN 2" DIAMETER.
7. NEW BED AREAS, AS SHOWN ON THE PLANS, SHALL RECEIVE A MINIMUM OF 2" DEPTH ORGANIC MATERIAL CULTIVATED INTO THE TOP 6" OF SOIL.
   SOIL SHALL HAVE AN ORGANIC CONTENT OF FIVE PERCENT OR MORE TO A DEPTH OF SIX INCHES AS SHOWN IN A SOIL SAMPLE ANALYSIS. THE SOIL ANALYSIS SHALL INCLUDE:
   A. DETERMINATION OF SOIL TEXTURE, INDICATING PERCENTAGE OF ORGANIC MATTER,
   B. AN APPROXIMATION OF SOIL INFILTRATION RATE, AND
   C. MEASURE Ph VALUE.
8. ALL BEDS TO RECEIVE A MINIMUM OF 2" FINE FIR BARK OR SIMILAR APPROVED MULCH.
9. ALL PLANT MATERIAL SHALL CONFORM TO ANLA STANDARDS FOR NURSERY STOCK, LATEST EDITION. ANY REPLACEMENTS MADE AT ONCE.
   A. GENERAL: ALL PLANT MATERIAL FURNISHED SHALL BE HEALTHY REPRESENTATIVES, TYPICAL OF THEIR SPECIES OF VARIETY AND SHALL HAVE A NORMAL GROWTH HABIT. THEY SHALL BE FULL, WELL BRANCHED, WELL PROPORTIONED, AND HAVE A VIGOROUS, WELL DEVELOPED ROOT SYSTEM. ALL PLANTS SHALL BE HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.
   B. TREES, SHRUBS, AND GROUND COVER: QUANTITIES, SPECIES, AND VARIETIES, SIZES AND CONDITIONS AS SHOWN ON THE PLANTING PLAN. PLANTS TO BE HEALTHY, VIGOROUS, WELL FOLIATED WHEN IN LEAF. FREE OF DISEASE, INJURY, INSECTS, DECAY, HARMFUL DEFECTS, AND ALL WEEDS. NO SUBSTITUTIONS SHALL MADE WITHOUT WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT OR OWNER.
10. LAWN IN ALL LANDSCAPE STRIPS, TYPICAL



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L-5
SHEET 5 of 5