

LOT INFORMATION:

R-3.5: 78 LOTS
AVERAGE LOT SIZE:
3,500.01 SQ FT

R-6: 14 LOTS
AVERAGE LOT SIZE:
6,577.49 SQ FT

R-10: 15 LOTS
AVERAGE LOT SIZE:
10,144.68 SQ FT

R-8

R-10

R-3.5

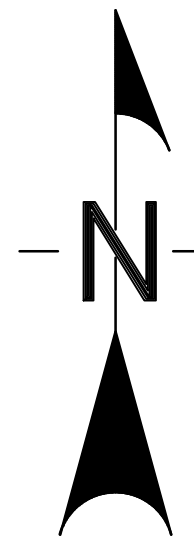
R-10

R-6

LOT SIZE PER ZONING		
ZONING	LOT #	AREA (SF)
R3.5	1	2828.25
	2	2828.25
	3	2828.25
	4	2828.25
	5	2828.25
	6	2828.25
	7	2828.25
	8	2828.25
	9	2828.25
	10	2828.35
	11	3083.08
	12	3171.79
	13	3352.14
	14	3495.79
	15	3500.00
R6	16	3500.00
	17	3500.00
	18	3500.00
	19	3500.00
	20	4200.00
	21	4200.00
	22	3500.00
	23	3500.00
	24	3500.00
	25	3500.00
	26	3500.00
	27	3500.00
	28	3500.00
	29	3500.00
R10	30	3500.00
	31	3500.00
	32	3500.00
	33	3500.00
	34	3500.00
	35	3500.00
	36	3780.38
	37	3062.47
	38	3062.48
	39	3062.48
	40	3040.95
	41	5123.66
	42	3046.92*
	43	3155.85*
	44	3196.24*
R6	45	3500.00
	46	3500.00
	47	3500.00
	48	3500.00
	49	3500.00
	50	3500.00
	51	3500.00
	52	4200.00
	53	4200.00
	54	3500.00
	55	3500.00
	56	3500.00
	57	3500.00
	58	3500.00
R10	59	5224.45
	60	3951.13
	61	3994.70
	62	4255.59
	63	4516.49
	64	4455.17
	65	4071.61
	66	3688.06
	67	3306.36
	68	2919.09
	69	3522.89
	70	3042.52
	71	3034.53
	72	3346.63
	73	5027.05
R10	74	3437.11
	75	3382.84
	76	3656.47
	77	3525.22
	78	3423.60
	79	6615.04
	80	6415.42
	81	5999.88
	82	5999.88
	83	6028.46
	84	6856.24
	85	5143.17
	86	5121.44
	87	5130.79
	88	5140.51
R10	89	5143.50
	90	7632.04
	91	9197.97
	92	11917.25
	93	13139.72
	94	9955.55
	95	8050.85
	96	10008.46
	97	9017.79
	98	9020.49
	99	9256.21
	100	9415.44
	101	9709.79
	102	10046.65
	103	10559.74
R10	104	10102.38
	105	9103.85
	106	9203.48
	107	15579.76
	108	

* AREA DENOTED DOES NOT INCLUDE THE PORTION OF THE SITE INSIDE THE R6 ZONING.

0 50' 100'
GRAPHIC SCALE 1"=50'



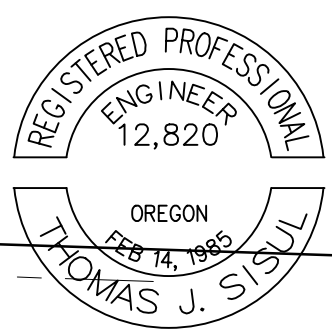
REVISIONS	BY
REVISED 10/19/15	JDM

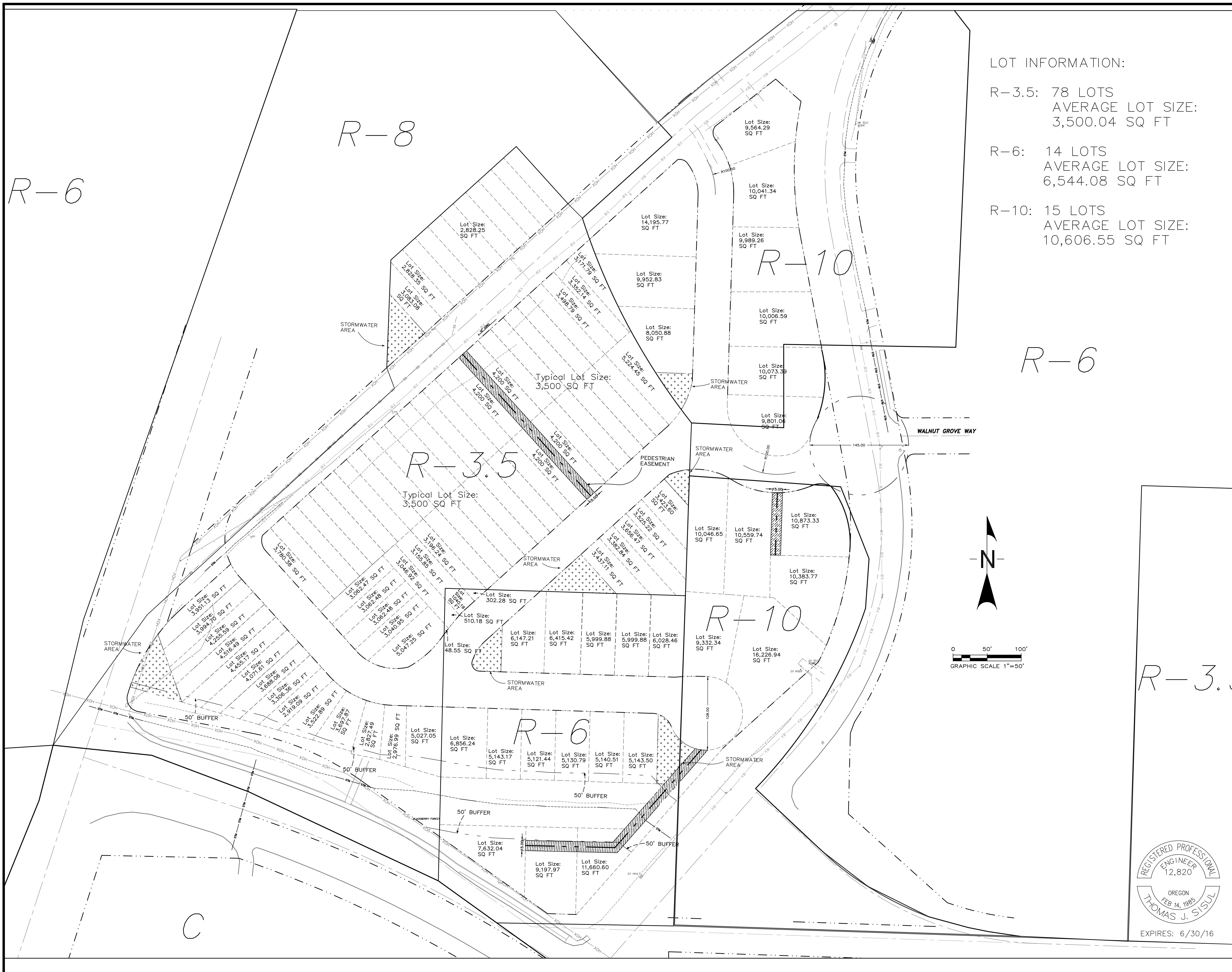
HILL TOP MASTER PLAN

LOT LAYOUT

ISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188
DRAWING:

DATE AUGUST 2015
SCALE 1" = 50'
DRAWN JDM
JOB SGL12-045
SHEET 1
OF 1 SHEETS





LOT INFORMATION:

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3,500.04 SQ FT

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AVERAGE LOT SIZE:
10,606.55 SQ FT

REVISIONS	BY

HILLTOP MASTER PLAN

LOT LAYOUT

ISUL ENGINEERING

375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

REGISTERED PROFESSIONAL
ENGINEER
12,820
FEB 14, 1985
OREGON
THOMAS J. SISUL
EXPIRES: 6/30/16

DATE AUGUST 2015

SCALE 1" = 50'

DRAWN JDM

JOB SGL12-045

SHEET 1

OF 1 SHEETS

July 22, 2015

Dan Fowler
Historic Properties, LLC
1300 Jon Adams Street, Suite 100
Oregon City, OR 97045



LANCASTER
ENGINEERING

321 SW 4th Ave., Suite 400
Portland, OR 97204
phone: 503.248.0313
fax: 503.248.9251
lancasterengineering.com

Dear Dan,

At your request, we have undertaken an investigation of the development potential of several properties located on the west side of Maplelane Road north of Beavercreek Road in Oregon City, Oregon. The properties have been proposed for a zone change, however the zone change will be proposed with a trip cap limiting site traffic to a level that would be permitted under the existing zoning.

The subject properties currently fall under a mixture of R3.5, R6 and R10 zoning as follows:

R3.5 Zoning

14297 Maplelane Road – 0.28 acres
14289 Maplelane Road - 0.24 acres
14275 Maplelane Road – 0.25 acres
14268 Maplelane Court – 4.03 acres
14228 Maplelane Court – 2.84 acres

Total R3.5 = 7.64 acres

R6 Zoning

3391 Beavercreek Road – 3.33 acres
Tax Lot 06000 – 0.62 acres

Total R6 = 3.95 acres

R10 Zoning

Tax Lot 06000 – 1.21 acres
Tax Lot 05900 – 0.04 acres
14375 Maplelane Court – 1.17 acres
14338 Maplelane Court – 1.02 acres
14362 Maplelane Court – 0.89 acres

Total R10 = 4.33 acres



Dan Fowler
July 22, 2015
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The “reasonable worst case” development scenario was evaluated for each of the three zones in order to determine the full development potential of the site under the existing zoning designations. All three zones allow residential development with single-family homes or cottage housing, and the R3.5 zone also allows duplex and multi-family development. Additionally, all three zones allow accessory dwelling units in addition to the primary dwelling.

For each of the three zones, the maximum development scenario was determined based on comparisons to other developed properties with similar zoning in Oregon City, as determined by the city’s transportation engineering consultant, John Replinger. This approach results in a lower number of units per acre than is specified by the code since it accounts for the likely net developable area of the site following necessary right-of-way dedications and inefficiencies inherent in subdivision layout which occasionally result in lot sizes in excess of the required minimums.

For the R3.5 zone, the reasonable worst case development potential was determined to be 8.33 lots per acre. For the R6 zone, the reasonable worst case development potential was determined to be 5.33 lots per acre. For the R10 zone, the reasonable worst case development potential was determined to be 3.8 lots per acre.

In order to assess the development potential of the properties, the gross acreages were multiplied by the respective development potentials to determine the number of lots that could be created within each zoning type. For each lot, it was assumed that a single-family dwelling and an accessory dwelling unit would be constructed.

The calculated development potential for each zone was as follows:

R3.5	7.64 acres * 8.33 lots per acre = 64 lots
R6	3.95 acres * 5.33 lots per acre = 21 lots
R10	4.33 acres * 3.8 lots per acre = 16 lots

The total development potential for the properties was therefore calculated to be 101 lots.

It should be noted that the cottage housing type permitted within the residential zones also allows increased density of dwelling units. Specifically, the Oregon City Code of Ordinances 17.062.059(C) allows a density bonus of 2 cottage units for each regular dwelling unit that would otherwise be allowed within the R6 and R10 zonings. Under the R3.5 zone, a density bonus of 1.5 cottage units is permitted for each regular dwelling unit that would otherwise be allowed within the zone. Analysis using cottage housing may result in higher development potential for the properties; however there are no clear examples of cottage housing within Oregon City on which we could base an estimate of the number of units achievable per gross acre. Accordingly, the “reasonable worst case” analysis was not conducted using cottage housing.



Dan Fowler
July 22, 2015
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Trip Generation Analysis

In order to assess the traffic impacts of full development under the existing zonings, an estimate of trip generation was prepared for the reasonable worst case development scenario. The trip estimates were calculated using data from the *TRIP GENERATION MANUAL, 9TH EDITION*, published by the Institute of Transportation Engineers. For each lot, one single-family dwelling and one accessory dwelling unit was assumed. Trip rates for the single-family dwellings were assessed based on data for land use code 210, *Single-Family Detached Housing*. Although initially trip generation for the accessory dwelling units was intended to be calculated using trip rates for land use code 220, *Apartments*, it was noted that Oregon City requires payment of system development charges for accessory dwelling units at half the rate of single-family dwellings. This approach yields slightly lower trip estimates than utilization of apartment trip rates for the accessory dwelling units, and it therefore conservative as well as consistent with prior decisions related to trip generation of accessory dwelling units within Oregon City.

A summary of the trip generation estimate is provided in the tables below. Detailed trip generation worksheets are provided in the attached technical appendix.

WEEKDAY TRIP GENERATION SUMMARY

Existing Development Potential

	Units	AM Peak Hour			PM Peak Hour			Weekday		
		In	Out	Total	In	Out	Total	In	Out	Total
Single-Family Residential Home	101	19	57	76	64	37	101	481	481	962
Accessory Dwelling Unit	101	10	28	38	32	19	51	241	241	482
Total		29	85	114	96	56	152	722	722	1444

Based on the detailed trip generation calculations, the reasonable worst case development of the subject properties would result in a total of 114 site trips during the morning peak hour, 152 site trips during the evening peak hour, and 1,444 daily trips.

Based on the analysis, in order to avoid creating a significant effect on the surrounding transportation system as defined under Oregon's Transportation Planning Rule following rezoning to allow mixed-use commercial development a trip cap of 152 PM peak hour trips is recommended for the properties.

Sincerely,



Michael Ard, PE
Senior Transportation Engineer

APPENDIX



TRIP GENERATION CALCULATIONS

Land Use: Single-Family Detached Housing
Land Use Code: 210
Variable: Dwelling Units
Variable Value: 101

AM PEAK HOUR

Trip Rate: 0.75

	Enter	Exit	Total
Directional Distribution	25%	75%	
Trip Ends	19	57	76

PM PEAK HOUR

Trip Rate: 1.00

	Enter	Exit	Total
Directional Distribution	63%	37%	
Trip Ends	64	37	101

WEEKDAY

Trip Rate: 9.52

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	481	481	962

SATURDAY

Trip Rate: 9.91

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	500	500	1,000



TRIP GENERATION CALCULATIONS

Land Use: Apartment
Land Use Code: 220
Variable: Dwelling Units
Variable Value: 101

Note: These trip generation calculations are provided for reference only. Actual trip generation for the accessory dwelling units was conservatively calculated as half the trip rate for single-family homes.

AM PEAK HOUR

Trip Rate: 0.51

	Enter	Exit	Total
Directional Distribution	20%	80%	
Trip Ends	10	42	52

PM PEAK HOUR

Trip Rate: 0.62

	Enter	Exit	Total
Directional Distribution	65%	35%	
Trip Ends	41	22	63

WEEKDAY

Trip Rate: 6.65

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	336	336	672

SATURDAY

Trip Rate: 6.39

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	323	323	646